

## Quality Analysis of the West Papua Tribune Website With the Webqual 4.0 Method: Evaluation of User Satisfaction

Listia Rachmayani<sup>1✉</sup>, Marlinda Sanglise<sup>2</sup>, Julius P.P. Naibaho<sup>3</sup>

<sup>1,2,3</sup> Teknik Informatika, Fakultas Teknik, Universitas Papua, Indonesia

✉ **Corresponding Author** : Listia Rachmayani (e-mail: [listiarachmayani02@gmail.com](mailto:listiarachmayani02@gmail.com))

| Article Information                                                                                                                                                                                                                     | ABSTRACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Article History</b><br><br><b>Received</b> : January 29, 2025<br><b>Revised</b> : February 06, 2025<br><b>Published</b> : April 02, 2025<br><br><br><b>Keywords:</b><br><i>Tribun news</i><br><i>Webqual 4.0</i><br><i>Smart PLS</i> | <p>The development of information technology has driven changes in news consumption, with online media becoming the main source of information for the public. Tribun News West Papua, as one of the news portals, has an important role in presenting fast and relevant news. However, website quality affects user satisfaction, so an evaluation of Usability, Information Quality, and Service Interaction Quality aspects is needed. This study aims to analyze the quality of the Tribun News West Papua website using the WebQual 4.0 method and see the effect of these three variables on user satisfaction. The quantitative approach used 134 respondents and the data was analyzed using PLS-SEM through SmartPLS 4.0. The results showed that Usability has no significant effect on user satisfaction, while Information Quality and Service Interaction Quality have a positive and significant effect. Service Interaction Quality has the most dominant influence where service responsiveness and ease of interaction are the main aspects in increasing user satisfaction. This research shows that increasing user satisfaction can be achieved by keeping the news current and improving service interaction features, such as a more responsive commenting system.</p> |

## INTRODUCTION

At present, the development of technology, especially in the field of information, is increasingly rapid. Developments in information technology help people search for and obtain data or information that is not limited to radio, newspapers and electronics, but can be obtained from different sources, one of which is through the internet. With this, the progress of free news information media presented online can increase (Firmansyah & Christian, 2023). The website is one of the tools in delivering information and providing services. The website can also provide the latest news every time in *real* time following the development of a phenomenon that occurs (Marhamah & Fauzi, 2021). The need for accurate, fast and precise information in providing complete information needed by the community is one of the important factors. Website is a collection of sites that contain information in the form of text, photos, and videos. (Christine et al., 2024)

Along with the increasing dependence of the public on online media, and the rapid competition among these media companies (Rosana, 2010). One of the well-known online media in Indonesia is TribunNews, which has various regional news sub-portals, one of which is TribunNews West Papua which specifically provides local news for the people of West Papua.

Tribunnews papua barat is part of the news media under the management of Kompas Gramedia Group, one of the largest media companies in Indonesia(Wulandari, 2021) . This website features the latest news with a focus on the western papua region, covering various topics such as politics, economy, social, culture, sports, and local events that occur in the western papua area. As a local news portal, tribun news west papua plays an important role in presenting information that is fast, precise, and relevant to the local community. Therefore, the quality of a website is an important element that affects the user experience in accessing information. Users expect a satisfying experience in terms of ease of use, quality of information presented, and relationship with the services provided by the website . (Minarwati & Hidayah, 2023)

There are many ways that are most often used to analyze website quality but the most commonly used is the webqual 4.0 method. This method is used to evaluate the level of website quality based on user assessment which includes three variables, namely Usability, information quality, and service interaction quality(Mandias, S.Kom, M.Cs et al., 2021) . To measure these three variables, an evaluation can be made on the feasibility of the website which will increase the effective use of the website. Based on the explanation above, the problems that can be researched on the tribun news papua barat website are related to the quality available, such as usability, quality of information that has a positive impact on viewing news through the tribunnews papua barat website.

The fourth research was conducted by Fajarini, Wirdiani and Dharmaadi with the title Evaluation of Online News Portals on usability aspects using Hertistic Evalution and Think Aloud, this research discusses the news portals Tribun news, Bali Post, and Jawa Post, which focuses on fulfilling news quality and user satisfaction in accessing online news portals. To achieve this goal, a combination technique of Heuristic Evalution and Think Aloud was used. This study aims to analyze the effectiveness and efficiency of the three portals, with the results of the Think Aloud method providing a Heuristic Evaluation analysis. The analysis showed that the three news portals performed well based on the respondents, both novice and advanced, with two respondents for each portal: Tribunnews, Bali Post, and Jawa Pos(Tantri Fajarini et al., 2020).

Although this study provides a good evaluation of usability on online news portals using Heuristic Evaluation and Think Aloud, there are some shortcomings or limitations in this study, namely the lack of respondents in this study which is relatively small to provide good and representative results of the user experience of the online news portals tested and there is no in-depth statistical analysis such as linear regression or SEM-PLS which can be used as a tool for measuring the relationship between usability and user satisfaction. The analysis in this study is only based on heuristic ratings and is not tested with more complex statistics to validate the results.

Based on a review of previous research, it was found that the appropriate method for website analysis is Webqual 4.0. However, this method only assesses three main dimensions, namely usability, information quality, and interaction quality. Therefore, the novelty of this research lies in the object of study and the parameters used, namely Usability with 5 indicators, Information Quality with 5 indicators, Service Interaction Quality also with 5 indicators.

## RESEARCH METHODS

In the method stage of this research, a quantitative approach is used to evaluate the quality data of the western papua tribune news website using the Webqual 4.0 method and PLS-based SEM data analysis through SmartPLS software. The data analyzed are in the form of numbers and the results of distributing questionnaires collected from users of the Tribun news website in West Papua. The webqual method was chosen because of its ability to measure website quality based on user perspectives, and analyze the relationship between webqual 4.0 variables such as usability, information quality, and service interaction quality to User satisfaction. In this research method, there are several stages used to evaluate the quality of the West Papua *tribunnews* website, the following is the flow of this research.

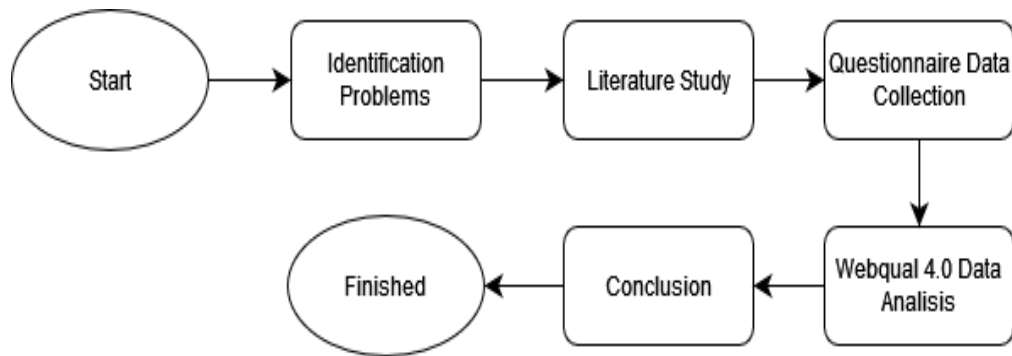


**Figure 1:** Research flow

### Identification Problems

The first stage in this research is problem identification which is carried out to show the problems that exist on the *tribun news papua barat* website related to website quality and the factors that need to be improved on the quality of the *tribunnews* papua barat website. One method for identifying this problem is through a questionnaire. A questionnaire is a collection of questions given to respondents to get information or opinions from someone . (Barus et al., 2018)

### Literature Study

In this second stage is a literature study, namely the collection of various information. Literature studies are conducted to find theoretical sources from previous research that can be searched through scientific journals, books, and trusted sources . (Hanifah & Purbosari, 2022)

### Questionnaire Data Collection

At this stage the researcher uses a quantitative method with a questionnaire used to collect data from respondents. After the respondent fills out the questionnaire that has been distributed, the next step is to collect all the data, the data obtained is 134 respondents through the use of a Likert measurement scale. The answer to the Likert scale is numbers 1-5 can be seen in table 1

**Table 1.** Likert Scale

| Answer options    | Score |
|-------------------|-------|
| Strongly Disagree | 1     |
| Disagree          | 2     |
| Neutral           | 3     |
| Agree             | 4     |
| Strongly Agree    | 5     |

### Webqual 4.0 Data Analysis

This method is an evacuation of website quality that refers to a research instrument grouped into three variables(Faza & Utomo, 2021) . Webqual 4.0 was developed from previous models, namely Webqual 1 to 3 and adapted and refined based on the ServQual model .(Dalimunthe et al., 2019)

## Conclusion

A conclusion is a summary or final statement that conveys the results of a particular analysis, research, or argument. The function of the conclusion is to provide a clear understanding of the core information that has been presented, emphasize important points, and provide interpretations or recommendations based on the data previously described (Arif Setyawan & Arif Setiawan, 2023). Conclusions are obtained and compiled based on the results of data analysis to identify the quality of each variable and determine which variables have the most influence on user satisfaction of the TribunNews West Papua website.

## RESULTS AND DISCUSSION

### Respondents

This data was collected through online questionnaire distribution. From the distribution of the questionnaire, data was obtained from 134 respondents grouped by several categories, namely age and occupation. The following is a brief explanation of the questionnaire results obtained.

#### Age

The data obtained shows that there are 93 respondents or 69.4% aged 17-25 years, 27 respondents or 20.1% aged 26-34 years, 6 respondents or 4.5% aged 35-43 years, and 8 respondents or 6% aged over 43 years.

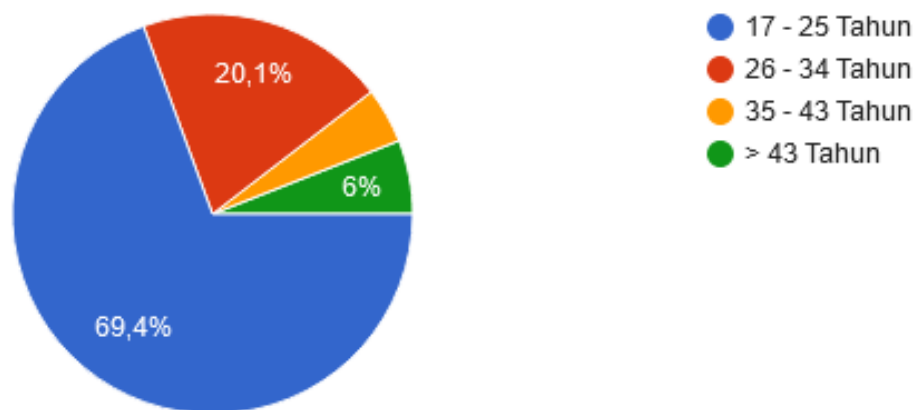


Figure 2. Age Chart

#### Jobs

The data obtained shows that there are 12 people or 9% who work as civil servants, 33 people as self-employed or 24.6%, 47 people or 35.1% as students, 22 people or 16.4% work as military / police and 20 people or 14.9% with other jobs.

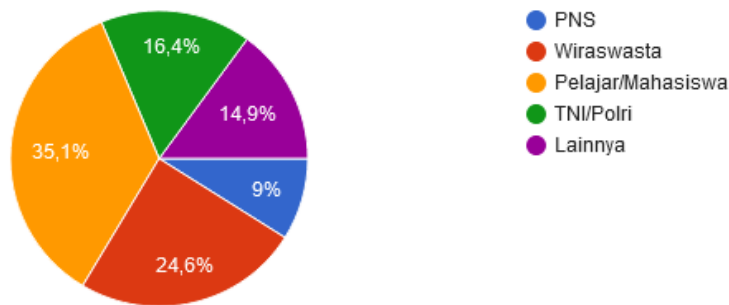


Figure 3. Jobs Chart

## Data Analysis

Outer Loading and Inner Model analysis was carried out using SmartPLS 4. The two models are analyzed through the paths created in the SmartPLS application. The following is a picture of the path diagram below.

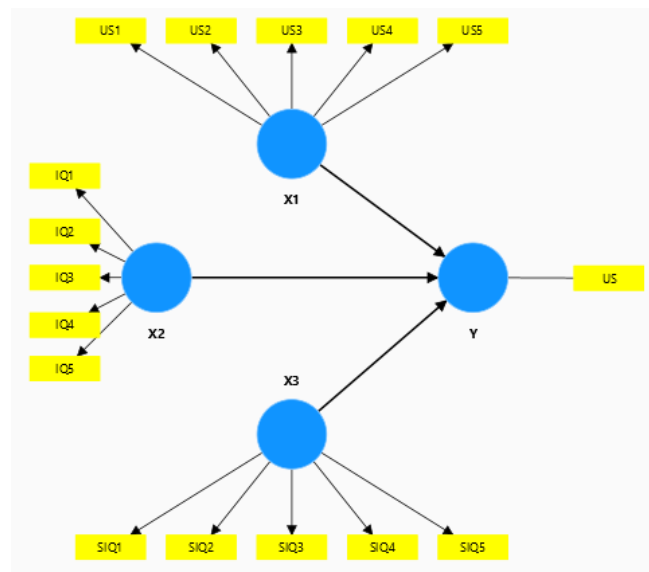


Figure 4. Path Diagram

## Measurement Model (Outer Model)

At this stage, an assessment of the measurement model is conducted, which includes validity and reliability tests.

### A. Validity Test

The validity test results that have been carried out using SmartPLS can be seen in Table 2. The validity test aims to prove that the questionnaire can collect relevant data (Abdul Kadir, 2018). Indicators are considered valid if the AVE value is more than 0.5 and the overall value of the Outer Loading variable is greater than 0.7. It can be stated that the tested variables meet the criteria of convergent validity.

#### 1. Convergent Validity

The data results from Convergent Validity can be seen in the loading factors generated using Smart PLS software. Convergent Validity is a technique for measuring the correlation value between latent variables. If the loading factor value is more than 0.7, it means that the convergent validity test is considered valid.

**Table 2.** Loading Factor

| <b>Dimensions</b> | <i>Usability</i><br>(X1) | <i>Information Quality</i><br>(X2) | <i>Service Interaction Quality</i><br>(X3) | <i>User</i><br>(Y) |
|-------------------|--------------------------|------------------------------------|--------------------------------------------|--------------------|
| USB1              | 0.895                    |                                    |                                            |                    |
| USB2              | 0.922                    |                                    |                                            |                    |
| USB3              | 0.915                    |                                    |                                            |                    |
| USB4              | 0.916                    |                                    |                                            |                    |
| USB5              | 0.872                    |                                    |                                            |                    |
| IQL1              |                          | 0.907                              |                                            |                    |
| IQL2              |                          | 0.937                              |                                            |                    |
| IQL3              |                          | 0.910                              |                                            |                    |
| IQL4              |                          | 0.921                              |                                            |                    |
| IQL5              |                          | 0.909                              |                                            |                    |
| SIQ1              |                          |                                    | 0.899                                      |                    |
| SIQ2              |                          |                                    | 0.903                                      |                    |
| SIQ3              |                          |                                    | 0.896                                      |                    |
| SIQ4              |                          |                                    | 0.912                                      |                    |
| SIQ5              |                          |                                    | 0.916                                      |                    |
| OV                |                          |                                    |                                            | 1.000              |

In Table 2 above, the *loading factor* test results show a value of more than 0.7, it can be concluded that all indicators of the three variables have met the *convergent validity* criteria and are declared valid.

## 2. Avarage Variance Extracted (AVE)

AVE is the average value of each indicator owned by each variable. If the variable has a value of more than 0.5 then AVE can be said to be valid.

**Table 3.** Avarage Variance Extracted (AVE)

| <b>Variable</b>            | <i>Avarage Vriance Exterted (AVE)</i> |
|----------------------------|---------------------------------------|
| <i>Usability</i>           | 0.818                                 |
| <i>Information Quality</i> | 0.841                                 |
| <i>Service Quality</i>     | 0.819                                 |

In Table 3, it can be seen that the AVE value has met the valid criteria because it exceeds 0.5. After processing the data using SmartPLS software, the Convergent Validity results show that all dimensions have a value above 0.7.

## B. Reliability Test

The reliability test aims to ensure that the measurement results remain consistent, and the stability of the indicators in measuring the variables under study (Rifandi Akbar et al., 2023). To test the reliability of variables, if the composite reliability value is more than 0.7, it means that the construct or variable is considered reliable.

### 1. Composite Reliability

**Table 4.** Composite Reliability Value

| Variable                   | Composite Reliability | Result   |
|----------------------------|-----------------------|----------|
| <i>Usability</i>           | 0.957                 | Reliable |
| <i>Information Quality</i> | 0.963                 | Reliable |
| <i>Service Quality</i>     | 0.958                 | Reliable |

In table 4, it can be seen from the calculation results that the three variables have a composite reliability value of more than 0.7, so that all variables can be considered reliable. To further deepen the reliability test, it can be observed in the Cronbach's alpha values of the three variables listed in table 5.

### 2. Cronbach Alpha

**Table 5.** Cronbach's alpha value

| Variable                   | Cronbach's alpha |
|----------------------------|------------------|
| <i>Usability</i>           | 0.944            |
| <i>Information Quality</i> | 0.953            |
| <i>Service Quality</i>     | 0.945            |

In table 5 above the results of the *Cronbach's Alpha* value obtained, all variables in this study provide good results, because the value obtained is more than 0.7.

The results of the validity test and reliability test are valid and reliable, which means the results are very good, so they can be used to assess the quality of the *Tribun News West Papua* website.

## C. Structural Model (Inner Model)

In this model, the *R-Square* value is applied to assess how much influence the independent variables have. The higher the *R-Square* value obtained, the higher the ability of the independent variables to influence the dependent variable, which can reflect an increase in the quality of the structural model.

**Table 6.** R-square value

| Variable          | R-square |
|-------------------|----------|
| User Satisfaction | 0.804    |

In table 6 above, it can be seen that the R-Square value shows that the independent variable affects the dependent variable by 0.804

#### D. Hypothesis Test

**Table 7.** Patch Coefficient

| Variable                                 | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | T statistics ( O/STDEV ) | P values |
|------------------------------------------|---------------------|-----------------|----------------------------|--------------------------|----------|
| Usability -> User Satisfaction           | -0.087              | -0.078          | 0.098                      | 0.889                    | 0.374    |
| Information Quality -> User Satisfaction | 0.290               | 0.296           | 0.139                      | 2.090                    | 0.037    |
| Service Quality -> User Satisfaction     | 0.715               | 0.698           | 0.101                      | 7.095                    | 0.000    |

In this study, hypothesis testing is a temporary conjecture on a research question (Ariani & Biettant, 2019). In this test, the significance level of P values used is 0.05 or 5%, with the t-statistics value which must be greater than 1.96, it is concluded that the hypothesis is accepted.

Explanations related to the results of this hypothesis testing are described as follows.

1. H1: shows that user satisfaction does not have a significant effect with a T statistic value of 0.889, ( $<1.96$ ) and P Values of 0.374 ( $>0.05$ ). from the results of these data it is stated that H1 is rejected. Where in this case there is a possibility that users feel that there are aspects that are not yet optimal, such as a less attractive display design.
2. H2: shows that user satisfaction is significantly influenced by the Information Quality variable with a T statistics value of 2.090 ( $> 1.96$ ) and P Values of 0.037 ( $<0.05$ ). declared the data Accepted. This is because users feel that the information provided is accurate and precise according to the needs of the readers, therefore users feel more satisfied.
3. H3: shows that user satisfaction is significantly influenced by aspects of Service Interaction Quality with a T statics value of 7.095 ( $>1.96$ ) and a P Values value of 0.000 (0.05). it can be concluded that H3 is Accepted. This is because users are satisfied with the website's features, which offer ease of access, security in providing data to the website, and responsive services.

#### CONCLUSION

Based on the results of the above research, it is concluded that the quality of the West Papua Tribune News website is influenced by three dimensions, namely Usability, Information Quality, and Service Interaction Quality. However, not all dimensions have a significant influence on user satisfaction. The Usability dimension, which includes ease of use, interface appearance, and website navigation, does not have a significant influence on user satisfaction. This is indicated by a T-statistic value smaller than 1.96 and a P-value greater than 0.05.

Although this aspect remains important, users tend to emphasize other factors in assessing website quality.

Meanwhile, the Information Quality dimension has a significant influence on user satisfaction. This indicates that the accuracy, completeness, relevance, and current information provided are the main factors that determine the user experience in accessing news on the Tribun News West Papua website. Users feel more satisfied when the information they get is reliable and suits their needs and the Service Interaction Quality dimension is proven to have the most dominant influence on user satisfaction. This shows that users really appreciate the ease of access, security of interaction, and responsiveness of the services provided by the website. Interactive features such as comment fields, better search systems, and fast and responsive customer service are factors that contribute greatly to improving user experience..

## ADVICE

Based on the research results, there are several suggestions for improving the quality of the West Papua Tribune News website: In the Usability aspect, although it does not have a significant effect on user satisfaction, this aspect still needs to be improved with a more modern interface design, better access speed and the application of more accurate search features and more structured news categories to help users find information easily. In the Information Quality aspect, the manager can maintain the relevance and currency of the news. These efforts are made through stricter news verification and increased publication speed. And in Service Interaction Quality, which is the most dominant factor in user satisfaction in this study, improvements can be made in ease of access, interaction security, service responsiveness and optimization of comment features and discussion forums to increase user involvement in the Tribun News West Papua website.

## REFERENCES

- Abdul Kadir. (2018). Peranan brainware dalam sistem informasi manajemen jurnal ekonomi dan manajemen sistem informasi. *Sistem Informasi*, 1(September), 60–69. <https://doi.org/10.31933/JEMSI>
- Ariani, M., & Biettant, R. (2019). Pengaruh Pelayanan Fiskus Terhadap Kepatuhan Wajib Pajak Dengan Variabel Intervening Kepuasan Wajib Pajak. *Jurnal Informasi, Perpajakan, Akuntansi, Dan Keuangan Publik*, 13(1), 15–30. <https://doi.org/10.25105/jipak.v13i1.4950>
- Arif Setyawan, A., & Arif Setiawan. (2023). Analisis Kualitas Website E-Commerce Shopee Terhadap Kepuasan Pengguna Menggunakan Metode Webqual 4.0. *INFOKOM (Informatika & Komputer)*, 11(1), 1–18. <https://doi.org/10.56689/infokom.v11i1.1051>
- Barus, E. E., Suprpto, & Herlambang, A. D. (2018). Analisis Kualitas Website Tribunnews.com Menggunakan Metode Webqual dan Importance Performance Analysis. *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer*, 2(4), 1483–1491. <https://j-ptiik.ub.ac.id/index.php/j-ptiik/article/view/1226/448>
- Christine, N., Purnama, B., & Mulyono, H. (2024). Analisis Kualitas Website Editornews.Id dengan Metode Webqual 4.0. *RESOLUSI: Rekayasa Teknik Informatika Dan Informasi*, 4(3), 267–274. <https://djournals.com/resolusi>
- Dalimunthe, N., Adawiyah, A., & Karina, T. (2019). Analisa Kualitas Website Menggunakan Metode Webqual 4.0 (Studi Kasus: Badan Kepegawaian Daerah Provinsi Riau). *Jurnal Ilmiah Rekayasa Dan Manajemen Sistem Informasi*, 5(2), 184. <https://doi.org/10.24014/rmsi.v5i2.7539>
- Faza, A., & Utomo, A. P. (2021). Analisa Kualitas Layanan Website PT. Masusskita United Menggunakan Metode Webqual. *Jurnal Tekno Kompak*, 15(2), 88. <https://doi.org/10.33365/jtk.v15i2.1155>
- Firmansyah, M. D., & Christian, C. (2023). Analisa Kepuasan Pengguna Kualitas Website Portal Berita Menggunakan Metode WebQual 4.0 dan Pendekatan Importance Performance Analysis (IPA) Studi Kasus Batampos.co.id. *JASIEK (Jurnal Aplikasi Sains, Informasi, Elektronika Dan Komputer)*, 5(2), 109–120. <https://doi.org/10.26905/jasiek.v5i2.11572>
- Hanifah, M., & Purbosari, P. P. (2022). Studi Literatur: Pengaruh Penerapan Model Pembelajaran Guided

- Inquiry (GI) terhadap Hasil Belajar Kognitif, Afektif, dan Psikomotor Siswa Sekolah Menengah pada Materi Biologi. *Biodik*, 8(2), 38–46. <https://doi.org/10.22437/bio.v8i2.14791>
- Mandias, S.Kom, M.Cs, G. F., Septiawan, Y., & Bojoh, M. J. (2021). Analisis Kualitas Website Menggunakan Metode Webqual 4.0 Dan Ipa Terhadap Situs Sla Tompaso. *CogITo Smart Journal*, 7(2), 396–406. <https://doi.org/10.31154/cogito.v7i2.331.396-406>
- Marhamah, M., & Fauzi, F. (2021). Journalisme di Era Digital. *JICOMS: Journal of Islamic Communication and Media Studies*, 1(1), 16–37.
- Minarwati, & Hidayah, I. (2023). Penerapan Metode Webqual 4.0 Untuk Analisis Kualitas Website STMIK El Rahma Terhadap Kepuasan Pengguna. *Jurnal Informatika Komputer, Bisnis Dan Manajemen*, 20(2), 87–99. <https://doi.org/10.61805/fahma.v20i2.36>
- Rifandi Akbar, M., Zuraidah, E., Kunci, K., Layanan Website Ahead, K., Karyawan, K., & Webqual, M. (2023). KLIK: Kajian Ilmiah Informatika dan Komputer Analisa Kualitas Website Ahead Menggunakan Metode Webqual. *Media Online*, 4(2), 686–697. <https://doi.org/10.30865/klik.v4i2.1078>
- Rosana, A. S. (2010). Kemajuan Teknologi Informasi dan Komunikasi dalam Industri Media di Indonesia. *Gema Eksos*, 5(2), 146–148. <https://www.neliti.com/id/publications/218225/kemajuan-teknologi-informasi-dan-komunikasi-dalam-industri-media-di-indonesia>
- Tantri Fajarini, P., Ayu Wirdiani, N. K., & Arya Dharmaadi, I. P. (2020). Evaluasi Portal Berita Online pada Aspek Usability Menggunakan Heuristic Evaluation dan Think Aloud. *Jurnal Teknologi Informasi Dan Ilmu Komputer*, 7(5), 905. <https://doi.org/10.25126/jtiik.2020753587>
- Wulandari, S. (2021). Konstruksi Realitas Pemberitaan Media Online Tentang Kebijakan New Normal Dimasa Pandemi (Analisis Framing Berita Tribunnews.Com Periode Mei-Juni 2020). *Skripsi*.