WEBQUAL ANALYSIS OF TELKOM UNIVERSITY'S OPENLIBRARY SYSTEM FROM THE PERSPECTIVES OF COMMUNICATION AND BUSINESS STUDENTS

Mahir Pradana¹*, Dwi Nur Puspitasari²

¹Telkom University, mahir.pradana@gmail.com ²Telkom University, dwinp@gmail.com

Abstract: Telkom University, Indonesia, established an open library system that is named "Telkom Open Library", the online version of the university's library in the form of website. Thus, the Open Library should be able to provide quality services to the expectations of website users by using a method called WebQual (Website Quality). In this study, the variables to be studied is usability, information quality, and service interaction on WebQual. This study used a sample of 68 respondents to the sampling technique using incidental sampling. Then the data analysis technique used is descriptive analysis technique, the analysis of gaps and the importance quadrant analysis of performance analysis (IPA). From this study, it was found that the gap is negative between the actual quality (performance) and ideal quality (importance), in the value of (-0.39). The largest found gap value is on the dimension of service interaction of (-0.5). Based on this, we can conclude that the actual quality of the perceived quality did not meet the desired ideal quality based on the perspectives of OpenLibrary users Indicators of priority improvements include the website should look attractive, the users' positive experience when using the website, the information in the appropriate format and good reputation.

Keywords: Website quality, Information system, Online education, Information quality

1. INTRODUCTION

In the information age of today, the need for computer-based information system is increasingly important, with globalization and free trade are happening around the world. Application of information technology has spread in almost all fields is no exception in the library. Information and Communication Technology (ICT) has brought changes in various sectors, including the library world. Utilization of Information and Communication Technology (ICT) as a means of improving the quality of services and operations has brought great changes. This convenience can only be supported by the application of information and communications technology in the library by developing digital services and the provision of digital material via the internet.

With the library's website, users expect to obtain information effectively and efficiently. In the era of digital technology today many collections in electronic form which is later collected in the library's website. Among the many collections of the library or information that is provided can not always be utilized by the user, because often the information can not be accessed by users. But sometimes the ease of access is not always obtained on the website College library, so users' difficulties in using the information provided on the website of the College library.

Evaluation of the website library can provide overview and to give input in achieving better quality website and quality. The importance of evaluating the College library website is the first step to the development of online information resources better, quality and quality for its users. Libraries, once only contains books, but today's modern library equipped with facilities, such as the thousands of pieces of VCD that contains a variety of science, as well as networking via the Internet so connected among other libraries in Indonesia.

Development and management information systems (MIS) library and digital library (digital library), which has the advantage in speed of access as oriented to digital data and computer

networks or the Internet (Rodliyah, 2012). Starting from a desire to unite all media knowledge in one container, Telkom University library building open library system that is named "Telkom Open Library". This system not only can be used by Telkom University academic community, but also other universities. Telkom University digital library applications, using open source applications made by Information and Public Relations Department of National Education of Indonesia.

Previously there was no outcome measurement study on the quality of Open Library website. Research on quality levels can be used as a reference for improving the management of the website to be better again. With the indication of the authors interested in studying with the Open Library website quality mebggunakan WebQual method. WebQual is one method for measuring the quality of a website based on an assessment of end users. WebQual based on three criteria, namely usability research, information and service interaction..

2. THEORETICAL BACKGROUND

According to McLeod and Schell (2007), the system is a group of integrated elements with the same purpose to achieve a goal, which element - the element consists of a resource input, transformation and output resources. The general model of a system is the input, process and output that is a very simple system, because a system can have multiple inputs and outputs. The system contained within the environmental limits are beyond the limits.

Information is data that has been processed into a form that is more useful for users, can be a fact, and has a value that is helpful, while the data is a source of information that describes an event (a collection of facts) which may take the form of letters, symbols, alphabet, and so forth. According Mcleod and Schell (2007), information is data - data that has been processed and has had meaning or significance to the people who use them. While the source of information is the data. A fact that illustrates an activities and real unity. Activity (event) is something that is happening at any given moment. John Burch and Gary Grudnitski says in his book Analysis and Design of Information Systems that the quality of the information depends on three things: Accurate, timely and relevant (Jogiyanto, 2009).

According to McLeod and Scheel (2007), the information system is a virtual system that allows maniemen control the operation of the company's physical systems.

So we can conclude that Information Systems is a unit of components - components such as data, people, and process which collect, process data into useful information.

Internet is referred to as a virtual space or the information super fast (Information Superhighway). This is because the Internet has become an indispensable requirement for the public is not a requirement that is not absolute. In the present era of Internet usage is desperately needed by the people. Now anyone who knows the internet is already a lot, even at a relatively young age already understand about the internet. Internet is a corridor for various types of resources available to him and every resource is accessed (McLeod and Scheel (2007)

People who use the internet for controlling what is done through the client device on the computer, such as Web browser software (browser). Web is one of the services offered by internet. Web is a standard system that has been agreed for storing, searching, formatting and displaying information using a client / server architecture. Website is a set of Web pages that are connected to a main page (home page). The main page is formatted documents on the web using the hypertext link that connects one document to another and also linking one document to another, such as voice, video or animation (Laudon, 2008).

WebQual is one method or technique of measuring the quality of a website based on the perception of the end user (end user) developed by Barnes and Vidgen (2000). This method is the development of SERVQUAL is widely used previously on measuring the quality of services in

general. WebQual (Website Service Quality), based on the concept of Quality Function Deployment (QFD) is "structured and disciplined process that Provides a means to identify and carry the voice of the customer through each stage of product and or service development and implementation" which can be interpreted as a structured and disciplined process that presents a means to identify and bring the voice of the customer through every stage of the development and implementation of a product or service. The latest version is WebQual 4.0 that uses three measurement categories with 23 of the questions.

3. THE RESEARCH METHOD

This type of research is categorized into quantitative descriptive study. Variables used in this research are measurement criterias based approach to quality website WebQual 4.0 ie, usability, information and service interaction is viewed from two perspectives: the actual perceived quality (performance) and the ideal desired quality (importance).

The population in this study is the whole final year students as the users of website Open Library at the Faculty of Communication and Busines, Telkom University. All students taken as population are acording to the data in the academic year 2015-2016. The samples used were 68 respondents had been determined, but based on the data obtained from the questionnaire was 77 respondents sampling technique is incidental sampling Data was collected through online questionnaires with a scale of 1-5 (1 = strongly disagree, 5 = strongly agree).

4. RESULT AND DISCUSSION

The number of respondents in the Open Library website is dominated by the female, as much as 74% ie 57 respondents, while the male gender as much as 26% ie 19 respondents. The number of respondents in this study is dominated by age> 20 years as much as 75.3%, ie 58 respondents, and age <20 years of as much as 24.7 with 19 respondents. The number of respondents in this study is dominated by the majors as much as 89.6% Business Administration is 69 respondents and Communication Studies as much as 10.4% of respondents ie 8. The number of respondents in this study is dominated by class as the class of 2011 of 22.1%, ie 17 responden, while the class of 2012-2013 as much as 71.4% of 55 respondents and force in 2014-2015 of 6.5% which is 5 respondents. The number of respondents in this study is dominated by the intensity rarely (1-2 times a week) as much as 45.5%, ie 35 respondents, the intensity occasionally (3-4 times a week) as much as 33.8%, ie 26 respondents, sedeangkan intensity of the frequent (week 5- 6 times) as much as 5.2% ie 4 respondents and intensity very often (week> 6 times) as much as 15.6%, which is 12 respondents.

Based on the recapitulation shows that the total score of the performance (Performance) amounted to 2,332, or 75.71%, while the total score of Hope (Importance) of 2566, or 83.31%. Thus both these attributes in the category Good.

Weighting questionnaire data using a scale of liqueur (1-5) is performed with a frequency tabulation of the overall indicator of each dimension WebQual namely usability, information quality, and service interaction.

Table 1 the Average Values of the Indicators

]	Indicators	Performance	Importance
1		Easy to learn and operate	3,83	4,05
2	Usability	Easy to use	3,85	4,01
3		Attractive website design	3,54	4,00
4	Information Quality	Accurate Information	3,84	4,21
5		High detail of information	3,84	4,26
6		Appropriate format of information	3,85	4,23
7	Service Interaction	Safe interaction	3,72	4,21
8		Satisfying service	3,72	4,23
		Average	3,77	4,15

Source: personal documentation

A gap analysis is taken to see the level of quality website of OpenLibrary between the perceived quality (actual) and the desired quality (ideal). Shown by the actual quality of the respondents' assessment of the performance forming attribute-based dimensions of website quality WebQual, while the quality of the intended ideal of respondents rating the level of importance of the quality attributes. To determine the value of the gap, it can be seen from the difference between the value of the actual quality (performance) and ideal quality (importance).

Where:

Qi = level of quality

Pi = the value of the actual quality (performance)

Ii = ideal quality value (importance)

Table 2 Gap Values of Usability Dimension

Indicators		Performance (P)	Importance (I)	Q (P-I)
1	Easy to learn and operate	3,83	4,05	-0,22
2	Easy to use	3,85	4,01	-0,16
3	Attractive website design	3,54	4	-0,46
	Average	3,74	3,91	-0,28

Source: personal documentation

Table 3 Gap Values of Information Quality Dimension

Indicators		Performance (P)	Importance (I)	Q (P-I)
4	Accurate Information	3,84	4,21	-0,37
5	High detail of information	3,84	4,26	-0,42
6	Appropriate format of information	3,85	4,23	-0,38
	Average	3,84	4,23	-0,39

Source: personal documentation

Table 4 Gap Value of Service Quality Dimension

Indicators		Performance (P)	Importance (I)	Q (P-I)
7	Safe interaction	3,72	4,21	-0,49
8	Satisfying service	3,72	4,23	-0,51
	Averages	3,72	4,22	-0,5

Source: personal documentation

Table 5: Gap Values of Overall WEBQUAL

Dimension	Perf. (P)	Imp. (I)	Q (P-I)
Usability	3,74	3,91	-0,28
Iinformation Quality	3,84	4,23	-0,39
Service Interaction	3,72	4,22	-0,5
Averages	3,76	4,12	-0,39

Source: personal documentation

The table above shows the value of the gap (gap) of the three-dimensional WebQual. From the above table, overall, the value of the difference between the actual quality (performance) and ideal quality (importance) has a negative value. The differences of the average of (-0.39). Which has the largest gap dimension is service interaction by a margin of (-0.5). From these results indicate a negative value or Q < 0, which means the actual quality of perceived currently not able to meet ideal quality that users want, then otherwise the quality level is still poor.

3.4 Analisis Importance Performance Analysis

Importance Performance Analysis (IPA) is used to view any website quality indicators that have been in accordance with the wishes of the user and which need improvement. The results of the analysis of the IPA shows the location of each indicator in the IPA matrix consisting of 4 (four) quadrants.

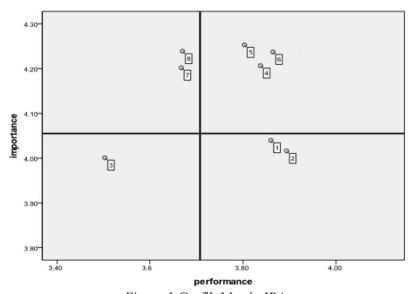


Figure 1 Grafik Matrix IPA

From the graph above it can be seen that the attributes that should be improved is in quadrant I, which consists of statement numbers 7 and 8. Then in quadrant II is good and should be preserved, consisting of a statement number 4, 5 and 6. In quadrant III shows that it is necessary to improve critical components, consisting of a statement of number 3. and quadrant IV shows that its implementation is considered excessive, consisting of a statement number 1 and 2.

5. CONCLUSION

From the results of research and discussion in the previous chapter, it can be concluded as follows:

- 1. The results showed that the level of quality of website mataharimall.com not in accordance with user expectations. There are differences that indicate the gaps (gap) between the two perspectives between the level of performance assessment (performance) and the level of importance (importance) or the quality of the ideal. Overall, the difference from the two perspectives of this assessment is negative with a value of (-0.39). From the three-dimensional measurement, usability dimension has a value gap of (-0.28), then the dimensions of information quality has a value gap of (-0.39) and the last dimension of service interaction has a gap value of (-0.5). Of three dimensions, the biggest gap value is service interaction with a value of (-0.5). Given this, it can be concluded that the actual quality of the perceived quality can not meet the desired ideal website users Open Library mainly of attributes associated with the quality of service interaction in such websites.
- 2. From the results of research and discussion in the previous chapter, it can be concluded that the results showed that the Open Library website does not meet user expectations. There are differences that indicate the quality of the website Open Library is based on the analysis of the quadrant IPA consisting of 4 (four) quadrant, which quadrant 1 inside him there are statement numbers 7 and 8 which describes expectations (Importance) application users high while the performance (Performance) is low, quadrant 2 includes a disclaimer 4, 5 and 6, which describes expectations (Importance) of website users Open Library height and performance (performance) is also high, quadrant 3 inside him there are statements 3 which describes expectations (Importance) of the low application and performance (performance) is also low, in his fourth quadrant 1 and 2 there is a statement that describes the expectations (Importance) application users is low but the performance is high.

ACKNOWLEDGEMENTS

Our gratitude to the family of Faculty of Communication and Business, Telkom University, Indonesia.

REFERENCES

Barnes, S. J., and Richard, T. V., 2014. Technological Forecasting and Social Change. *Technology socialness and Web site satisfaction*, 89, 12-25

Susanto, B., 2015. Pengertian E-Commerce Menurut Para Ahli. Available at http://www.seputarpengetahuan.com/2015/12/pengertian-e-commerce-menurut-para-ahli-terlengkap.html [16 Maret 2016]

Jogiyanto, H., 2009. Sistem Teknologi Informasi. Yogyakarta: Andi

Internet Wold Stats, 2016. Peringkat Negara Pengguna Internet. Available at http://www.internetworldstats.com/top20.htm [diakses tanggal 29 Juli 2016]

Kampus Marketing, 2013. *Mengukur Mutu Website WebQual*, Available at http://www.kampus.marketing.co.id/mengukur-mutu-website-dengan-webqual [17 Februari 2016]

Laudon, K., and Laundon, J. P., 2011. *Management information systems*. Vol. 8. New Jersey: Prentice Hall

McLeod, R., and Schell, G., 2006. Management information systems. Prentice-Hall, Inc.

Rodliyah, Ummi., 2012, *Perpustakaan Digital dan Prospeknya Menuju Resource Sharing*. Visi Pustaka 14.1: 39-47.

Seta, B., 2011. *Analisis Kuadran Harapan dan Persepsi Publik*. Available at http://setabasri01.blogspot.co.id/2011/04/analisis-deskriptif-dengan-importance.html [16 Maret 2016]

Sugiyono, 2011. Metode Penelitian Kuantitatif Kualitatif Dan R&D. Bandung: Alfabeta. Cetakan ke-14

Sugiyono, 2013. Metode Penelitian Kuantitatif Kualitatif Dan R&D. Bandung: Alfabeta

Sunjoyo, dkk., 2013. Aplikasi SPSS Untuk SMART Riset. Bandung: Alfabeta