Analysis of Visual Communication of Telkom University Endowment and Alumni Directorate Based on User Satisfaction Level using The User Satisfaction Index Method

[1]Siti Hajar Komariah, [2]Ghilman Akbar Kautsari

[1, 2] Department of Creative Industry, Telkom University, Bandung, Indonesia

1sitihajar@telkomuniversity.ac.id, [2]Ghilman.ak26@gmail.com

Abstract- Most of the universities in Indonesia, especially private universities rely on tuition fees as the main income for their operational cost., one of the solutions is the Endowment Fund, Telkom university has it, namely Endowment and Alumni Directorate (EAD) of Telkom University. Telkom University has managed the Endowment Fund program, but until now it has not been very successful, because the achievement of the target funds collected is far under target. The results of the initial identification show that one of the main media for promotion is the website of the Telkom University Endowment and Alumni Directorate. In this study, prospective donors were assessed on the appearance, content, and message delivered on the website of Telkom University Endowment and Alumni Directorate using the user satisfaction index method. The result of the USI index is 43.64% of overall user assessment of the website, which indicates that the website is still low.

Keywords- Endowment Fund, User Satisfaction Index, WebQual 4.0.

I. INTRODUCTION

In 2017, based on data from the Ministry of Research Technology and Higher Education (Research and Technology Higher Education), the number of registered tertiary education units reached 4,504 units. This figure is dominated by private institutions which are reached 3,136 units. Whereas there are only 122 state universities. The rests are religious tertiary institutions and tertiary institutions under a ministry or state institution. In 2019, Higher Education in Indonesia will be reduced to only 2500 universities. This discharging process will be carried out by combining 4 to 5 tertiary institutions into one merged university. The basis used in this merger, several universities with a small number of students and study programs and are considered unhealthy will be merged into one Higher Education Institution. These Higher Education Institutions are dominated by private universities, where many of them are not feasible in managing their institutions especially related to financing. The operational costs of private university so far have generally been very dependent on tuition fees from their students. This will be difficult when the number of students does not match what is expected or payment from students is stagnant or is constrained.

To overcome this problem, a private university tries to find and create new sources of operational financing to be able to independently manage and finance its operational institutions. One that has been widely developed is the Endowment Institution to obtain endowment funds sourced by accommodating funding contributions from alumni, donors who are institutional stakeholders, and CSR funds from companies that are partners in Higher Education Institutions. Telkom University, although the funds from the tuition fees of students are still quite adequate and large, the anticipation of obtaining funds independently for operations outside of the tuition fees will also continue to be created and developed. To achieve the endowment target, Telkom University established the Telkom University Endowment and Alumni Directorate (DEA) since 2017.

The problem is, since its establishment until the beginning of 2019, the Directorate of Telkom University Endowment and Alumni is considered to have not succeeded in reaching the target of obtaining funds, seen from the lack of funds that have been collected and the lack of enthusiasm of partners and stakeholders

concerned with the existence of this Directorate. One reason is the lack of socialization and promotion carried out by the Directorate concerned. One of the promotion and outreach media that is and is considered the most possible is the DEA website. The irony is the existence of this DEA Website is still not accessed by prospective donors because many donors who have heard the address and whereabouts of this website, are not interested in continuing to dig up information because the appearance of this DEA website is less attractive, less clear and not informative.

Based on these findings, the problem raised in this study is how to evaluate prospective donors on the appearance, content, and messages conveyed on the website of the Telkom University Endowment and Alumni website. Previous research on measuring the level of quality and satisfaction was done, but the focus on the object under study was more on product quality and organizational performance. The method used is based on perceived service quality, namely gap analysis method [1] and performance-importance method analysis [2]. The method proposed in this study is the user satisfaction index (USI) method. The measurement of the quality of the Telkom University Endowment and Alumni website using the USI Method is based on user experience by following webQual 4.0 standards

II. METHODOLOGY

The research conducted the quantitative descriptive research category. The variables used in this study are based on the WEBQUALversion 4.0 method which consists of 22 total indicators that can be grouped into 3 categories. [3]

The three categories are usability, information, and service interaction. The usability category is based on studies of the relationship between humans and computers and studies of web usability, including regarding ease of navigation, compatibility of designs and images conveyed to users. Information categories are reviewed based on general information systems studies. This category relates to the quality of the website's content, the appropriateness of the information for the user's purpose, for example regarding the accuracy, format, and relevance of the information presented. The service interaction category relates to the service interaction perceived by the user when deeply involved with the website (Barnes and Vidgen, 2002). The three categories of variables with 22 indicators can be seen in Table 1.

The data collection process carried out in this research is to conduct a survey by distributing questionnaires to the respondents. The sample population used in this study were Alumni, Telkom Employees, Telkom University Lecturers, without age and gender restrictions, and taking into account the length of time of internet use and DEA web access from each respondent.

Table 1. Research variables and sub variables

Variable	Indicator	Code	Scale
Usability	interaction clear and can be understood	V1	Ordinal
	Easy navigation	V2	Ordinal
	Attractive Display	V3	Ordinal
	Design Appropriate	V4	Ordinal
	power competitiveness	V5	Ordinal
	Easy to learn and operate	V6	Ordinal
	Easy to use	V7	Ordinal
	Positive Experience	V8	Ordinal
Information	Accurate	V9	Ordinal
	Can be trusted	V10	Ordinal
	Current	V11	Ordinal
	Relevant	V12	Ordinal
	Easy to understand	V13	Ordinal
	Detail the right	V14	Ordinal
	Appropriate format	V15	Ordinal
Service Interaction	Good reputation	V16	Ordinal
	Transaction security	V17	Ordinal
	Security of Personal Information	V18	Ordinal
	Privacy	V19	Ordinal
	Service Suitability	V20	Ordinal
	Ease of Communication	V21	Ordinal
	Sense of Community	V22	Ordinal

The ordinal scale is a scale that sorts data from the lowest level to the highest level or vice versa with intervals that do not have to be the same. [4]

While the Likert scale according to Kinner (1998), relates to statements about one's attitude towards something, for example agreeing — disagreeing, happy-unhappy and good-not good. In this study, the scale used was 7 liker scale. [4] [1]

Table 2. Likert Scale

The answer	Scale Figure
Very not satisfied	1
Not too satisfied	2
Not satisfied	3
Pretty satisfied	4
Satisfied	5
Very satisfied	6
Very satisfied once	7

The types of questions used in this research questionnaire are closed-ended questions. [5-7] The technique used in the sample taken in this study is judgment sampling which is measured based on seven (7) scales starting from very dissatisfied until very satisfied. [8] The number of questionnaires distributed was 130 sheets and 104 were returned. The number of samples used was 100 respondents by removing 4 sheets of survey results because the answers were incomplete,

respondents who came from among alumni, lecturers, and Telkom employees.

Testing the validity and reliability of the questionnaire conducted in this study took a sample of 20 questionnaires that have been filled by respondents so that the remaining 80 questionnaires will be used as material for further data measurement after the validation process is declared valid. The validity and reliability tests are performed on the performance indicators from the DEA website. [1, 9-14]

The method to be used in measuring the level of satisfaction of users/prospective donors for their assessment of the quality of the Telkom University Endowment and Alumni web is the User Satisfaction Index (USI). This method is a quantitative analysis of the percentage of users who are happy in a user satisfaction survey. USI is needed to determine the level of overall user satisfaction. [3] [1]

USI is determined to determine the index/level of employee satisfaction. The formula used with scale n:

$$USI = \sum_{i=1}^{n} TSPij \frac{fPij}{FPij} x \frac{1}{n} x 100\ \% \quad \text{.....(1)}$$

dimana :

TSP: *trend score performance*

fP: *frequency performance*

FP: *frequency score performance*

i: observation of the i row

j: observation of column j

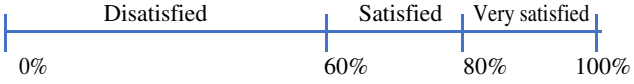

Figure 1. User Satisfaction Index Continuum Line

III. RESULT

Characteristics of the respondents contained in this study show the number of men more than the number of women, where the percentage obtained for men is 90% and the percentage of women is 10%. Based on age segmentation, 75% are between the ages of 21-25 years and 25% are under the age of 20 years. Based on the average internet user, 41.67% of respondents spend more than 5 hours a day using the internet, 38.33% of respondents spend 1-3 hours a day to use the internet and the remaining 20% spend 3-5 hours a day to use the Internet. Testing the validity and reliability of the questionnaire conducted in this study took a sample of 20 questionnaires that have been filled by respondents so that the remaining 60 questionnaires will be used as material for further data measurement after the validation process is declared valid. The validity and reliability test is performed on the performance indicators from the DEA website (performance).

The following is Table 3 that illustrates from the dimensions of the indicators used in this study after the validity and reliability tests were carried out along with the value of web user satisfaction.

Table 3. Results of USI Values

Variable	Indicator	Code	USI (%)
Usability	Interaction is clear and can be understood	V1	47.5
	Easy navigation	V2	44.0
	Attractive Display	V3	46.3
	Design Appropriate	V4	45.7
	Power competitiveness	V5	45.3
	Easy to learn and operate	V6	46.5
Information	Accurate	V9	41.3
	Can be trusted	V10	45.3
	Current	V11	40.3
	Relevant	V12	42.7
	Easy to understand	V13	38.7
	Detail the right	V14	35.5
	Appropriate format	V15	44.3
Service Interaction	Good reputation	V16	45.3
	Transaction security	V17	43.5
	Security of Personal Information	V18	41.7
	Privacy	V19	40.3
	Service Suitability	V20	51.3

Based on Table 3, the results of the calculation of USI (User Satisfaction Index) per indicator item, where the average user satisfaction index is 43.62%, this value indicates that the level of user satisfaction is in the dissatisfied category, where the maximum satisfaction index score is only 51.7% for indicator item 20 (service conformity) and the minimum satisfaction index score is 35.5% for item 14 (exact details). Of the 20 valid statement indicator items, the average USI calculation results can be presented in a continuum line in Figure 2.

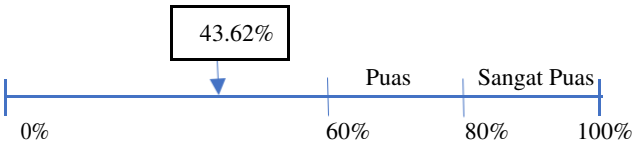

Figure 2. Continuous Line of USI Average Service Interaction

Almost all 20 web performance indicators are based on web equal, rated by users in the category of none that satisfies the user. This is indicated by the value of USI per indicator none equal to or more than 60%.

The results of USI values per variable category can be seen from Table 3, where USI values for the usability variable, obtained an average value of USI of 45.88%. This shows that the DEA web is "user-friendly" still lacking, it is still seen as unattractive in appearance and design and cannot compete with other similar websites. Navigation is rigid and deemed impractical and flexible.

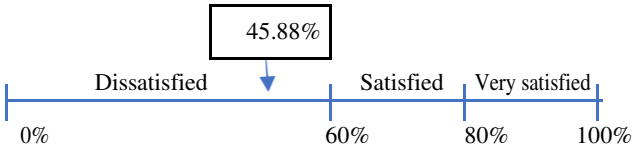

Figure 3. Continuous Line for Average Usability

For the variable information category, the average USI value obtained was 41.16%. This value shows the information conveyed by the DEA website is less actual, less relevant, accurate, less detailed, unclear and the format is not appropriate. Information as a whole is unclear and difficult to understand.

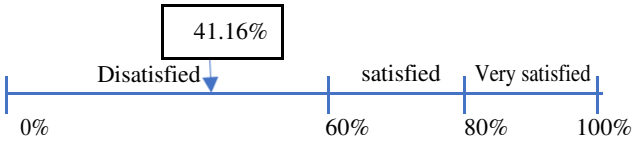

Figure 4. Continuous Line for Average Age Information

For the variable service interaction category, the average USI value obtained was 44.42%. This value shows the user doubts the security, data privacy, and suitability of the data available on the DEA website. Users also doubt the reputation of this DEA website.

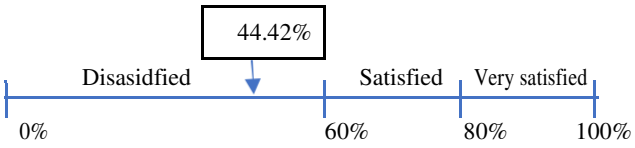

Figure 5. Continuous Line of USI Average 20 Indicators

IV. DISCUSSION

The results obtained only show the level of user satisfaction with the DEA web application, where the results of the user can be described as dissatisfied with the quality and performance of the DEA web in terms of 3 categories of variables based on web equal 4.0, namely usability, information, and service interaction.

The follow-up problem is, suggestions for improvement to improve the performance of the DEA website cannot be done. To provide suggestions for improvements or suggestions for accurate improvement further research is needed to be related to the value of user expectations of the DEA web-based on the level of importance of the variables studied on the quality of the DEA web performance. From the results of the gap obtained between the perception of assessment and expectations desired by the user, the next step can be done gap analysis based on the gap values obtained from the measurement results of the respondent's assessment.

V. CONCLUSSION

The User Satisfaction Index can be used to measure the level of user satisfaction with a product or service. In this study, USI is used to measure the level of user satisfaction with the performance of a Telkom University Endowment and Alumni web performance based on variables derived from WebQual 4.0. The variable categories examined and measured are Usability, Information, and Service interaction. From these 3 variables it was reduced to 22 indicators where after the validity test, 18 valid indicators were obtained.

Based on the calculation of the User Satisfaction Index (USI), the overall USI value is below 50%. The overall average USI value was 43.64% which means that the user is in the unsatisfactory category on the DEA website. According to the continuum line of the User Satisfaction Index, the value is in the dissatisfied category. This shows that the quality and performance of the DEA web according to users, namely prospective donors consisting of alumni, lecturers and Telkom employees are still in the low category, so improvements are needed in terms of usability, information, and service interaction.

REFERENCES

[1]. Hajar Komariah, Siti. 2014. " Employee Satisfaction Analysis Using Gap Analysis and Quadrant Map", Thesis. Telkom University. Bandung.

[2]. Magal, Simha R dan Levenburg, Nancy M. 2005. Using Importance-Performance Analysis to evaluate e-business Strategies among small businesses. Proceedings of the 38th Hawaii International Conference on System Science.

[3]. Barnes, S., & Vidgen, R. 2000. WebQual: An Exploration of Web-site Quality. ECIS 2000.

[4]. Hajar Komariah, Siti. 2019. The Measurement of The Effectiveness Perception Index of E-Commerce Business using Descriptive Analysis. Comditee2019. Bandung: Universitas Telkom.

[5]. Eskildsen, K, Jacob., & Kristensen, Kai. (2006). Center for Corporate Performance, The Aarmus School of Business, Aarmus Denmark. Enhancing importance-performance analysis vol. 55 No. 1 2006.Pp 40-60. Retrieved from Emerald International Journal Of Productivity And Performance Management.

[6]. Rummler, Geary A. & Alan P. Brache. 1995. Improving Performance: How to Manage the White Space on the Organization Chart. San Francisco: Jossey-Bass Publishers.

[7]. Triton PB. 2006. Get to know E-Commerce and Business in the Cyber World. Yogyakarta: Argo Publisher.

[8]. Halim , Cipta. 2010. Shop smart and open the slang outlets in Kaskus. Jakarta: PT Elex Media Computindo.

[9]. Umar, Husein. (2008). Strategic Planning for Improving Public Sector Performance. Jakarta: Gramedia.

[10]. 1.Harsey & Blanchard. 1998. Management of Organizational Behaviour. Sixth Edition. Prentice Hall. New York.

[11]. Barnes, S., & Vidgen, R. 2002. An Integrative Approach to The Assessment of E-Commerce Quality. Journal of Electronic Commerce Research, 3(3), 114-127. UK: University of Bath. http://www. webqual.co.uk/papers/ bookstore.pdf.

[12]. Latu, T.M. dan Everett, A.M., 2000, Review of Satisfaction Research and Measurement, Approaches, Departement of Conservation, Wellington, New Zealand.

[13]. J. A. Martilla and J. C. James. 1977. Importance–performanceanalysis. Journal of Marketing, vol. 41, pp. 77-79.

[14]. Brandt, D.R., 2000, An “Outside-In” Approach to Determining Customer Driven Priorities for Improvement and Innovation, White Paper Series, Volume 2 –2000.