**THE PERCEPTION AND EXPECTATION QUALITY WEBSITE SERVICES OF OPEN UNIVERSITY**

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ABSTRACT

The purpose of this study is to examine the difference between actual perception and ideal expectation of website users of Open University Students in Distance Learning Program Unit (UPBJJ) of Palu by using WebQual 4.0 Modification method. The type of this research was quantitative descriptive research with 610 non-PGSD and PGPAUD students as population. Sample consisted of 100 students. Sampling technique was multistage random sampling technique. Data analysis technique employed Differences Analysis (*t\_test*) and Importance Performance Analysis (IPA) by using IBM SPSS 21. The results showed that there is a difference between the actual perception and ideal expectations of students on each dimension of the website service quality. All differences (gaps) are negative. For example, perceptions are smaller than students’ expectations. This shows that the level of quality of Open University website service in Distance Learning Program Unit (UPBJJ) of Palu has not been in accordance with the students’ expectations. The results of Cartesian diagram mapping could be feedback for website managers to improve the quality of Open University website services.

*Keywords: Quality, Perception, Expectations, Website Services*

**INTRODUCTION**

Website or internet site is a page that contains information that can be seen if the computer is connected to the internet. With the website, everyone can get and manage information with various sources available on the internet. The current website can contain a variety of media, ranging from text, images, sound, and even video. The role of a university website is not only limited as an information medium but also one of the barometers used to measure the quality of universities (Puspitasari, 2013).

Open University as the 45th State University in Indonesia has good governance, strives to meet the needs of the students in doing information service via internet in the form of procurement of website [www.ut.ac.id](http://www.ut.ac.id). The existence of the Open University website has objectives, namely (1) providing convenience for prospective students or the community to obtain comprehensive information about Open University, (2) making it easier for prospective students to contact Open University every region; (3) increasing the ease of accessing Open University services; and (4) making it easier for students and society to get information about knowledge, whether in the form of journals, articles, or recent news (Maria, Sriati, & Yunus, 2015:348). Research on the analysis of the perception and expectation quality of Open University website services has never been done, either in Central Open University or in Distance Learning Program Unit (UPBJJ) of Palu.

Related to the description above, the writer got inspired to conduct research with a study of the Analysis of Perceptions and Expectations Quality of Open University Website Services in Distance Learning Program Unit (UPBJJ) of Palu. The significance of this study was that the results would be useful to provide considerations or input for the Open University manager in order to improve its servives and successful implementation of the university website.

**LITERATURE REVIEW**

**2.1 Website Concepts**

Internet stands for Interconnection Networking. Internet is a connection between computer networks to the world that can be seen from the delivery of information. The internet can also be considered as a medium of advertising that is cheaper than other media (Tung, 1996, in Winarti *et al*, 2014). Yuhefizar (2008:2) mentions that the internet is a series of computer connections that can be accessed in general worldwide throughout the world that send data in the form of data packets based on internet protocol (IP) standard. The main service of the internet as a medium is provided namely to disseminate and obtain information, generally presented in the form of websites, information bias in the form of text, graphics, sound, video or downloadable form of files. Budijanto (2006:3) mentions that the website is the most up-to-date publicity media known by people, even though it has disadvantages. Website has many advantages besides other media. The main advantage of the website is that it is cheap, quickly updated, and gives audiences the freedom to reproduce or print it themselves. Winarti, *et al*. (2014:7) state that the purpose and benefits of the website for educational institutions are that (1) college information can be obtained easily anywhere and anytime, (2) increase human relationship among alumni, between alumni and teaching staff, staff and parents, and (3) increase the credibility of universities for the community views in the seriousness of improving the quality of education and encouraging universities to become international universities.

Barnes and Vidgen (2002, 2003, 2005) as the WebQual method founders conducted research using WebQual 4.0 method to evaluate some websites both e-commerce website and government website (e-government) which refer to three dimensions of quality, namely usability quality, information quality, and service interaction quality. A similar study was conducted by Nasution and Mudjahidin (2013). This study was carried out to measure the quality of government website from the side of end user satisfaction and the desire of website visitors to reuse the website service, and the perception of quality of website service perceived (actual) with the main three-dimensional references WebQual 4.0 (usability quality, information quality, and service interaction quality) added to the fourth dimension of design quality. Arifin SR, Nugroho E, & Hartono B.S. (2015) carried out a study to measure the difference between actual perception and ideal expectations of website users by Webqual 4.0 modification method.

**2.2 Concept of Perception and Expectation**

Parasuraman, *et al*. (1988) state the correlation between the concept of perceived service quality and the concept of perception and expectation. They suggest that perceived quality is known as the level and direction of the differences between perceptions and consumer expectations. Perception and expectation will ultimately determine the level of customer satisfaction with a service. After getting the services provided, consumers will compare their expectation and perception about the service. According to Lovelock, *et al*. (2001), there are several possibilities that can occur in visualizing perceptual images and expectations as follows.

1. If perception is less than expectation, (P <E), this will cause a disatifaction to the consumer.

2. If perception is equal to expectation, (P = E), this will make the consumer quite satisfied with the service.

3. If perception is greater than expectation, (P> E), this will make the consumer very satisfied with the service



Figure 1: The process of satisfaction and dissatisfaction

 based on conformity of expectations and perceptions

**2.3 WebQual 4.0 Modifications**

According to WebQual theory, there are three core dimensions that represent the quality of a website, namely usability, information quality, and service interaction quality (Barnes and Vidgen, 2002). The core qualities of WebQual are derived from the support of primary and secondary literature that refer to research from three key areas:

1. Information Quality comes from research on information systems. The questions developed in this section are built on literature that focuses on the quality of information, data and systems.
2. Service Interaction Quality comes from research on the quality of marketing services, e-commerce, and information systems.
3. Usability comes from research in the field of Human-Computer Interaction (HCI) or human and computer interaction and web usability.

In this study, user interface quality is a new dimension that is put into the original dimension of WebQual 4.0 to determine the interface quality of website related to visual attractiveness of the user interface website.

The dimension of user interface quality uses several indicators adapted from Hasan (2014) on his research that developed 25 design criteria for university websites, and Sutcliffe (2001) on his research that developed the principle of heuristics for attractiveness to assess attractiveness of the user's website Interface.

**2.4 Theoretical Framework**

This study analyzes the quality of website services to determine the difference (gap) between the actual perception and ideal expectations of website users as measured by the dimensions of information quality, service interaction quality, user interface quality, and usability. In detail the framework is presented in Figure 2.Theoretical Framework

**Information Quality Informasi**

**Service Interaction Quality**

**User Interface Quality**

**Usability**

Atribut:

* Accurate
* Trusted
* Timely
* Relevant
* Easy to understand
* Details
* Proper format

Atribut:

* Secure transactions
* Private information is secure
* Personalized space
* Community space
* Easy to communicate with the organization
* Service according to what has been promoted

Atribut:

* Precise picture
* Proper font
* Color accordingly
* Design accordingly
* Link works well
* Fast downloading process
* The layout is structured and consistent
* It reflects identity

Atribut:

* Easy to learn
* Interactions are clear and easy to understand
* Easy to navigate
* Easy to use
* Available competence
* Positive experience
* Interesting display

Service Quality of **Website**

**Universitas Terbuka**

**PERCEPTION**

**GAP**

**EXPECTATION**

**2.5 Research Hypotheses**

Hypotheses of this research are as follows

(H1) There is a difference between the actual perception and the ideal expectation of the students on the information quality dimension of the website.

(H2) There is a difference between the actual perception and ideal expectation of the students on the service interaction quality dimension of the website.

(H3) There is a difference between the actual perception and ideal expectation of the students on the user interface quality dimension of the website.

(H4) There is a difference between the actual perception and the ideal expectation of the students on the usability dimension of the website.

**RESEARCH METHODOLOGY**

This research employed quantitative descriptive method. The population of in this research involved 650 students of Non PGSD Program and Non PGPAUD of Open University. The number of samples was 100 respondents. Furthermore, the sample was selected by using multistage random sampling technique with the formula proposed by Slovin (in Husain, 2014: 108) as follows.



Note:

n = Number of samples

N = Total population

e = Error tolerance with 10%

Of the total population with the freedom degree of inaccuracy was set at 10%; then, the researcher applied a formula above in order to obtain the sample as follows.

 610

 n =

 1+610 (0.1)2

 610

 n = = 86

 7.1

In this study, it was obtained the sample with 100 students of Non PGSD and PGPAUD based on the Slovin’s formula.

The primary data were obtained from the questionnaire given to the respondents as the research instrument and the secondary data were obtained from previous studies related to the problems. The research instrument can be seen in table 1.

**Table 1: Research Instrument**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Source** | **Code** | **Indicators** |
| Information Quality | WebQual 4.0 | A1 | Website provides accurate information |
| A2 | Website provides reliable information |
| A3 | Website provides timely information |
| A4 | Website provides relevant information |
| A5 | Website provides information that is easy to understand |
| A6 | Website provides detailed information |
| A7 | Website presents information in the right format |
| Service Interaction Quality | WebQual 4.0 | B1 | Users feel secure when making transactions  |
| B2 | User feels secure against personal information  |
| B3 | Website provides space for personalization |
| B4 | Website provides space for the community |
| B5 | Website makes it easy to communicate with the organization |
| B6 | Users are confident that the services received are as promised  |
| User Interface Quality | Hasan(2014) | C1 | Website provides the right image |
| C2 | Website provides the appropriate font (letter) |
| C3 | Website provides the appropriate colors |
| C4 | Website provides the appropriate page design |
| C5 | Links on the website work well |
| C6 | The download speed is on the website page  |
| Sutcliffe (2001) | C7 | Website has a structured and consistent layout |
| C8 | Website reflects the identity of the university |
| Usability | WebQual 4.0 | D1 | Users can easily learn to use the website  |
| D2 | User interaction with the website is clear and understandable  |
| D3 | Website is easy to navigate |
| D4 | Website is easy to use |
| D5 | Website contains competency value |
| D6 | Website creates a positive experience for users |
| D7 | Website has an interesting look |

The procedures of conducting this research depend on the testing results of validity and reliability. If the research instrument is invalid and reliable, the instrument can be revised. The collected data were processed in the technique of t-test analysis (Paired Samples T Test) to analyze the research hypotheses and the Importance Performance Analysis (IPA) technique to compare between the students' assessment on the importance of the service quality and the performance level of the service quality of Open university.

**3.1 Testing Validity and Reliability**

Testing validity was done to know or analyze the extent to which the accuracy of a measuring instrument in performing the measuring function. Product moment correlation was used to analyze the validity of data. An indicator could be valid if the value of product moment coefficient correlation was greater 0.3. While testing reliability was carried out to measure the extent to which the results of a measurement can be reliable. Testing reliability was done by using Alpha Cronbach (α) technique. A research instrument can be reliable if the reliability coefficient is > 0.6.

**2.3 The Results of Testing Validity and Reliability**

Based on the calculation of validity and reliability testing through using SPSS statistical software version 21 can be found that all the questions from four dimensions are valid and reliable.

**RESEARCH RESULT**

**4.1 The Result of T-counted (T- test)**

**Table 2. The Results of Testing Hypotheses**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Dimensions**  | ***Mean*** | ***Mean******Difference*** | **Tcounted** | **Sig.** | **Remarks** |
| Information Quality | Perception  | 29.34 | -1.640 | -0.23 | -2.872 | 0.000 | Significant Difference |
| expectation  | 30.98 |
| Service Interaction Quality | Perception  | 24.65 | -1.500 | -0.25 | -3.189 | 0.000 | Significant Difference |
| expectation  | 26.15 |
| User Interface Quality | Perception  | 32.70 | -1.600 | -0.20 | -2.792 | 0.000 | Significant Difference |
| expectation  | 34.30 |
| Usability | Perception  | 29.04 | -1.860 | -0.27 | -3.037 | 0.000 | Significant Difference  |
| expectation  | 30.90 |

 *(Source: Primary data obtained, 2017)*

The result of testing hypotheses as seen in Table 2 above were done by using ***T-counted***  (*Paired Samples T-test*) to the whole hypotheses in this research. The results indicate that there was difference of mean score between actual perception and ideal expectation in each dimension. This is proved by the significance value of 0.000 (<0.05) which shows that the mean difference between the perceptions and expectations of students toward the quality of website services is significant.

**4.2 The Results of Importance Performance Analysis (IPA)**

Some stages in the Importance Performance Analysis (IPA) method were firstly done by determining the level of conformity between the level of importance (expectation) and performance (perception). The second stage was carried out by calculating the average for each attribute perceived by the user. Third, it was taken place by calculating the average of all attribute level levels of importance (expectation) and performance (perception) that could be limited in the *Cartesian* diagram. The last step was is the presentation of each attribute into *Cartesian* diagram.

The calculation of conformity level (*Tki*) and the mean value of perception (*Xi*) and expectation (*Yi*) can be seen in Table 3.

**Table 3. Calculation of Conformity Levels and Mean Value of**

**Perception and Expectation**

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicators** | **Perception**$$(Xi)$$ | **Expectation** $$(Yi)$$ | **(%)** |
| **Total Score** | ***Mean*a** $(\overbar{X}i)$ | **Total Score** | ***Mean*b**$(\overbar{Y}i)$ |
| **Variables of Information Quality** |
| A1 | 428 | 4.28 | 452 | 4.52 | 94.69 |
| A2 | 426 | 4.26 | 446 | 4.46 | 95.52 |
| A3 | 409 | 4.09 | 448 | 4.48 | 91.29 |
| A4 | 423 | 4.23 | 433 | 4.33 | 97.69 |
| A5 | 412 | 4.12 | 442 | 4.42 | 93.21 |
| A6 | 413 | 4.13 | 439 | 4.39 | 94.08 |
| A7 | 423 | 4.23 | 438 | 4.38 | 96.58 |
| **Mean** | $$̿=4.19$$ |  | $$̿=4.43$$ | $$94.72$$ |
| **Variables of Service Interaction Quality** |
| B1 | 415 | 4.15 | 439 | 4.39 | 94.53 |
| B2 | 408 | 4.08 | 437 | 4.37 | 93.36 |
| B3 | 394 | 3.94 | 424 | 4.24 | 92.92 |
| B4 | 415 | 4.15 | 430 | 4.30 | 96.51 |
| B5 | 429 | 4.29 | 455 | 4.55 | 94.29 |
| B6 | 404 | 4.04 | 430 | 4.30 | 93.95 |
| **Mean**  | $$̿=4.11$$ |  | $$̿=4.36$$ | $$94.26$$ |
| **Variables of User Interface Quality** |  |
| C1 | 409 | 4.09 | 424 | 4.24 | 96.46 |
| C2 | 409 | 4.09 | 422 | 4.22 | 96.92 |
| C3 | 409 | 4.09 | 415 | 4.15 | 98.55 |
| C4 | 406 | 4.06 | 417 | 4.17 | 97.36 |
| C5 | 399 | 3.99 | 443 | 4.43 | 90.07 |
| C6 | 399 | 3.99 | 442 | 4.42 | 90.27 |
| C7 | 403 | 4.03 | 424 | 4.24 | 95.05 |
| C8 | 436 | 4.36 | 443 | 4.43 | 98.42 |
| **Mean** | $$̿=4.09$$ |  | $$̿=4.29$$ | $$95.39$$ |
| **Variables of Usability** |  |
| D1 | 411 | 4.11 | 450 | 4.50 | 91.33 |
| D2 | 420 | 4.20 | 449 | 4.49 | 93.54 |
| D3 | 396 | 3.96 | 429 | 4.29 | 92.31 |
| D4 | 427 | 4.27 | 453 | 4.53 | 94.26 |
| D5 | 422 | 4.22 | 439 | 4.39 | 96.13 |
| D6 | 424 | 4.24 | 446 | 4.46 | 95.07 |
| D7 | 404 | 4.04 | 424 | 4.24 | 95.28 |
| **Mean** | $$̿=4.15$$ |  | $$̿=4.41$$ | $$93.99$$ |
| **Total Mean** | $$̿=4.13$$ |  | $$̿=4.37$$ | $$94.59$$ |

*(Source: Primary data obtained, 2017)*

aRating Scale: 1 – strongly disagree to 5 – strongly agree

bRating Scale: 1 – very unimportant to 5 - very important

In accordance with Table 3, the information quality dimension is the highest level of conformity dimension with a conformity level of 95.39%. This indicates that the quality of the Open University website service is quite successful on the user interface quality dimension. The dimension with the lowest level of conformity is the usability dimension, 93.99%. This indicates that usability variable is the most need to be improved by the management of the website in improving the quality of the Open University website service. Overall, the amount of students’ expectations that have been met is 94.59%, and 5.41% has not been met.

The mean values ​​of perception (*x*) and expectation (*y*) is used to determine the position of placement of each indicator on *Cartesian* diagram divided into four parts. Those parts are limited by the mean value of all indicators at the perception level () on the *X* axis, and the level of expectation on the *Y* axis.

Attributes that are in quadrant I (*Concentrate Here*) are considered very important but have a fairly low level of performance. Attributes that are in quadrant II (Keep up the Good Work) are considered very important, and at the same time, are considered to have high performance levels. Attributes that are in Quadrant III (Low Priority) are considered to have low importance, and performance is relatively low. Attributes that are in quadrant IV (Possible Overkill) are considered less important, but services are considered to be performing well.

Here is the placement of each indicator of each dimension in the importance performance matrix (*Cartesian* diagram).

|  |  |
| --- | --- |
|  |  |
| Figure 3 *Cartesian* Diagram of Information Quality | Figure4 ***Cartesian*** Diagram of Service Interaction Quality |
|  |  |
| Figure 5 *Cartesian* Diagram of User Interface Quality | Figure **6 *Cartesian*** Diagram of Usability |

**CONCLUSIONS AND RECOMMENDATIONS**

**4.1 Conclusions**

1. The level of quality of Open University website services has not been in line with students’ expectations. This can be seen from the average difference between the actual perception and the ideal expectation of the students towards each dimension of the website.
2. All differences or gaps are negative,namely perceptions are smaller than students’ expectations. The smallest gap (-0.20) is in the dimension of the quality of the user interface. This indicates that the Open University website service is reasonably successful on the user interface of the website.
3. The largest gap (-0.27) lies in the usability dimension which indicates that the Open University website service has not met the ideal students’ expectations

**4.2 Recommendations**

1. The Open University website manager maintains a dimension that obtains a small gap (-0.20), namely the interface dimension.
2. The priority of improvement of indicator on each service of Open University website starts from the indicator which has the biggest negative gap value, -0,27 for the usability dimension, -0,25 for the service quality dimension, and (-0,23) for the information quality dimension.

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