

Importance Performance Analysis (IPA) on Website Quality (*Webqual*): An Evidence from A Higher Education Institution in Indonesia

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ABSTRACT

This paper attempts to evaluate the quality of website of the Faculty of Economics and Business of University X in Indonesia, using the *WebQual* model and map it using Importance Performance Analysis. The study uses a quantitative method of Importance Performance Analysis (IPA), by using an online survey with a *WebQual* questionnaire. Samples were collected through an accidental sampling, involved 70 samples, collected from the stakeholder of the faculty, representing students, lecturers, partners as well as general public. The result of the study reveals that Information Quality poses the most performed of the Website Quality while Usability was the least ones. The result recommends any higher education institution to evaluate information provided in their website to its stakeholder, should consider its usability as it is the most important factor which is needed by website visitors.

Keywords: WebQual; Importance Performance Analysis; Usability; Information Quality; Service Interaction.

INTRODUCTION

The advancement of Information and Communication Technology (ICT) has given significant impacts to the society. A global consulting company ey.com has underscored that the future global customer will experience dramatic changes in terms of the way they: 1) consume; 2) live; 3) live healthy; 4) shop; 5) work; 6) use technology; 7) play; and 8) transport or move [1].

The use of internet-based of ICT has been commonly used in daily education activities. The recent covid-19 global pandemic has speed up the digital transformation, including the way higher education institution provide its services. From admission process, student registration, as well as teaching, research activities have been using ICT in various modes. While in the past we did survey physically, nowadays, online survey become a common practice in research activities. While in the past lectures have been implemented through classical mode of teachings, today people start to familiar with online-based teaching such as Massive Open Online Courses (MOOC) platform. Website is one of online platforms which has been used by higher education institution in providing its services to its stakeholder. Information regarding admission, curriculum, academic staff, as well as other academic information needed by website visitors are provided in a website. Unlike direct information through a physical site visit, website provide flexibilities to visitors to visit anytime and anyplace, through any gadget with less cost and less time [2].

Website is also a medium for higher institution to communicate with its stakeholder, particularly students and society who seek for education services. Considering its importance, a web marketing analyst from Germany, Vtldesign.com describes the effectivity of website through its visitors. Out of 100,000 website visitors, only about 0.03% or 33 visitors who will decide to use the services provided by the website owners [3]. This means that if a university offers its education programme through a website, they have to measure its effectivity. For instance, how many of website visitors will further decide to apply for any programme at the university, etc.

WebQual (*website quality*) is a model which is introduced by webqual.co.uk, to measure quality of a website, using its dimensions. This model is an extention to Service Quality (Servqual) model, introduced by [4], aimed to measure service quality of a website. WebQual has been developed in 1988 and has been used in various analysis of website quality. The model has four dimensions in analysing the quality of website: 1) user quality, 2) information quality; 3) interaction and service quality; 4) overall quality.

Previous researches have been done on to analyse the quality of website, using this *WebQual* model. Barnes & Vidgen has developed a research instrument using the four dimensions of WebQual [5]. This instrument has been used extensively in many studies regarding the quality of websites. Another study by Baiti et al. concluded that WebQual is suitable to measure website quality from a perspective of end-customer [6]. Using a sample from a university in South Sumatra, Indonesia, Manik et al. concluded that *user quality* and *information quality* positively influence to customer satisfaction [7]. A study by Winarti and Munggaran found that there are gaps between perception and expectation of website visitors, particularly on the *information quality* factor[8].

University X is one of the top 10 universities in Indonesia. The university has 16 faculties and one post graduate school. It has about 40,000 student body and 1500 academic staff and 1500 administrative staff. As part of higher education institutions in Indonesia, University X need to evaluate whether their website has been effectively presented to their customers and how was the effectivity and efficiency of its use. Faculty of Economics and Business of the university recorded that during 2020, only 24,000 visitors visited the website [9]. By using the effectivity measure of Vtldesign.com, the faculty could only expect less than 10 students who will apply to

the university. This of course insufficient in order to ensure that the faculty could get certain target of applicants and positive reactions from the stakeholders.

This paper attempts to evaluate the quality of website of the Faculty of Economics and Business of University X in Indonesia, using the *Webqual* model. This would bring another empirical evidence of a website quality of a higher education in Indonesia, by using WebQual model.

THEORETICAL FRAMEWORK

Website is one of marketing modes by using the advancement of internet technology, or *e-marketing*. According to Chaffey & Smith, *E-marketing is marketing online whether via web sites, online ads, opt-in email, interactive kiosk, interactive TV or mobiles* [10]. By using this definition, e-marketing is an online marketing process, by utilizing various online media, i.e. website, online advertisement, opt-in email, interactive TV or cellular phone. Furthermore, Turban & Linda (2012) define website as *an application that runs on the internet, as do email IM and VOIP. The website is a system with universally accepted protocols for storing, retrieving, formatting, and displaying information via client/server architecture* [11].

Webqual.co.uk introduces the WebQual as a model or quality performance measurement. The model is an extension of Service Quality model, developed by Zeitaml et al. [12]. The model has four dimensions in analysing and evaluating a website quality: 1) Usability; 2) Information Quality; 3) Service Interaction Quality; and 4) Overall Impression. Those four dimensions are necessary to be identified from the perspective of stakeholder in order to measure its quality and customer satisfaction [13], [14]. The following table explains the details of the four dimensions of WebQual (www.WebQual.co.uk).

Table 1 Dimension of Website Quality (WebQual)

Quality Dimension	Description
<i>Usability</i>	
1	I find the site easy to learn to operate
2	My interaction with the site I clear and understandable
3	I find the site easy to navigate
4	I find the site is easy to use
5	The site has an attractive appearance
6	The design is appropriate to the type of the site
7	The site conveys a sense of competency
8	The site creates a positive experience for me
<i>Information Quality</i>	
1	Provides accurate information
2	Provides believable information
3	Provides timely information
4	Provide relevant information
5	Provides easy to understand information
6	Provides information at the right level of detail
7	Provides the information in an appropriate format.
<i>Interaction Quality</i>	
1	Has a good reputation
2	It feels safe to complete transaction
3	My personal information feels secure
4	Creates a sense of personalization
5	Creates a sense of community
6	Make it easy to communicate with the organization
7	I feel confident that goods/services will be delivered as promised
<i>Overall Impression</i>	My overall view on the website.

Source: Nada & Wibowo (2015).

Earlier researches have highlighted the importance of having quality website. The study by Elangovan for instance has concluded that the three dimensions of WebQual contributed to the satisfaction of the society in accessing the website: 1) usability; 2) service interaction; and 3) quality of information [15]. A study by Ilias, Rahman and Abd. Razak concluded that customer satisfaction was only influenced by easy to use with a coefficient of determination of 0.859 [16]. Similarly, a Study by Putra, Soleh and Widyastuti concluded that Webqual positively influence customer satisfaction [17].

METHOD

This paper attempts to provide another empirical evidence of *Website Quality* (WebQual), using *Importance Performance Analysis* (IPA). A questionnaire which uses the four dimensions of WebQual and using a likert scale of 1 to 5 was distributed online to the respondents. The instrument has been tested for its validity and reliability.

Using the sample of all stakeholder of the Faculty of Economics and Business, University X in Bandung, Indonesia, this study collected 70 samples through an accidental sampling approach as the authors could not know the total number of website visitors of the Faculty of Economics and Business, University X. The sample represents all stakeholder to the faculty, including students, public, lecturers, partners and alumni of the faculty. The sample were collected in 2021. The respondents were asked to provide their perspective to the website of the Faculty of Economics and Business, University X, Bandung, Indonesia. For an ethical reason, the authors do not reveal the identity of the university. The website was accessed at www.feb.x.ac.id the "x" was representing the University X.

The data which are collected from the stakeholder from August to November 2021, then analysed by using Importance and Performance Analysis (IPA) which was firstly introduced by Martilla & James [18].

RESULTS

The following table 2 is the result from the perspective of its stakeholder.

Table 2 Website Quality of Faculty of Economics and Business, University X (N=70)

<i>Webqual</i>	<i>Performance</i>	<i>Importance</i>
Usability	3.75	4.73
Information Quality	3.86	4.77
Service Interaction	3.76	4.66
Overall Impression	3.77	4.66

Source: Collected Data (2021)

From the *Importance* aspect of the Website Quality, Information Quality poses as the most importance of the website quality of the Faculty of Economics, University X is Information Quality (4.77), followed by Usability (4.73), and then Service Interaction and Impression which share the same score of 4.66.

From the Performance aspect of the Website Quality, It is shown that the website of the Faculty of Economics and Business, University X has its strongest performance in the Information Quality (3.86) and the least one on the Usability (3.75). It means that in terms of Information

Quality, the faculty has successfully provided quality of information which are needed by its stakeholder or website visitors (3.86). However, the result has also shown less usability as it poses the lowest performance (3.75). It means that, the quality of information of the website does not relate to the usage, particularly for the stakeholder. This is proven that from the analysis by the author using webstat, the author found that the most visited page of the website was an article about *"The Impact of Pandemic to Financial Statement and Business Practices in Indonesia"* (Webstat of the Official Website, 2021). Although the article provides an important information, however it does not relate directly to educational services which is offered by the University. Similarly, the second article which is most visited by the visitors was about *"The implementation about Financial Policy of Central and Regional Government after Covid Pandemic"*. Again, the article has its importance to the general society. However, it does not relate to business activities in the university.

The authors then mapped the perception of the stakeholder by using the Importance Performance Analysis (IPA) or also known as the Perceptual Map of the Stakeholder. The following Figure 1 reveals its perceptual map. It shows that the website of the Faculty Economics and Business, University X has a good performance in terms of its Information Quality. The dimension poses in the Quadrant of "Keep Up the Good Work". Which means, the faculty should maintain its quality of information provided in their websites. However, the type information should be reconsidered as the evidence shows that the information has less usability.

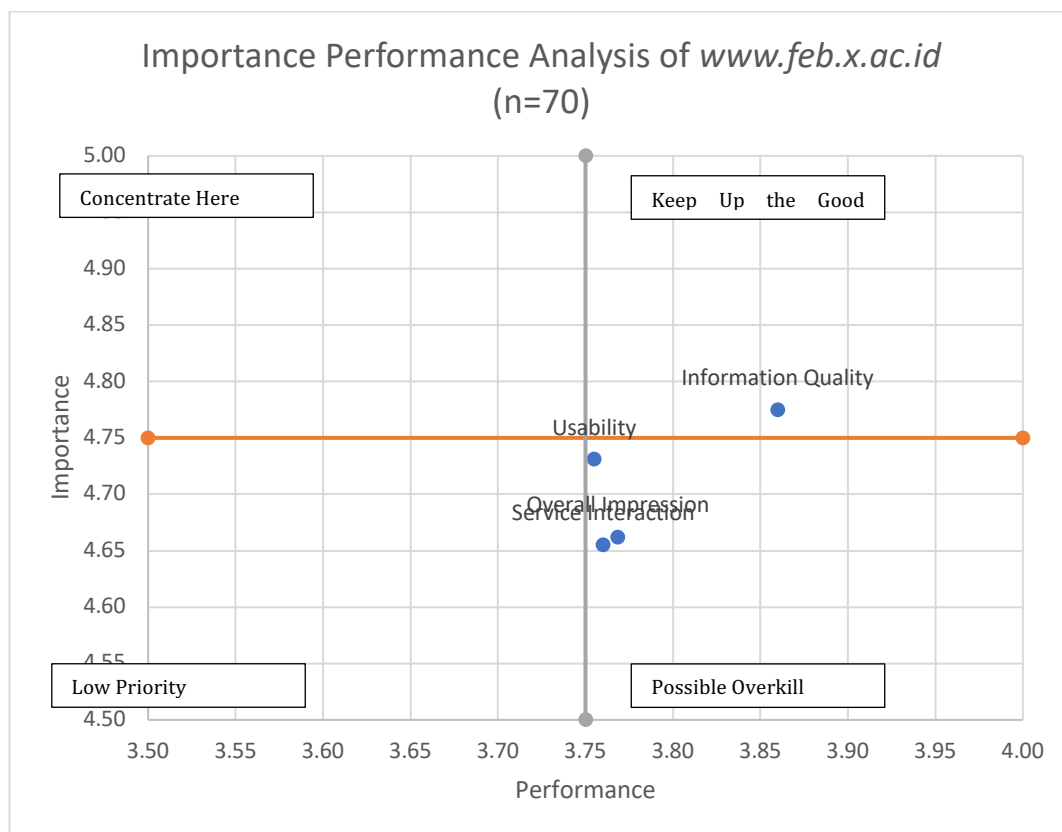


Figure 1 Importance Performance Analysis of Webqual of *www.feb.x.ac.id*
Source: Primary Data Collected (2021)

The figure also shows that the other three dimensions pose in the Quadrant "Possible Overkill" which means that the stakeholder did not see the dimensions of the website as importance. However, its performance are above its average. It can be concluded that the owner of the website provides information which has not related to the information which are needed by its stakeholder.

CONCLUSION

The study has shown that the quality of the website of the Faculty of Economics and Business of University X in Indonesia, has shown a good performance, with the performance scores above 4 (out of 5). The highest quality of the website is the Information Quality while the least one is Usability. It shows that although the institution has provided an information quality to its stakeholder, however, it does not relate to the information which the stakeholder is seeking for. It has less usability to the stakeholder. In this context, the institution should reidentify the usability of information provided in their website to ensure its effectivity. The result also shown that the model represents valuable inputs to a higher education institution to improve their website as their front-line information provide to the stakeholder

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