

ANALYSIS OF SERVICE QUALITY AND IMPORTANT FEATURES OF PROPERTY WEBSITES IN INDONESIA

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ABSTRACT

Nowadays, there are various property websites that offer information about properties rented or sold in Indonesia. However, most of these websites offer similar features and many customers have difficulties in searching the desired information. The purpose of this research is to analyze the service quality of property websites in Indonesia in order to help website owners in evaluating their websites. The service quality of the websites is measured by adapting the SERVQUAL method which measures the gap between visitor's expectation and satisfaction. In addition, considering unique condition of Indonesia and many technology advancements, we also aim to formulate important features of property websites in Indonesia. We disseminated questionnaires to property exhibition events in Jakarta and received 101 valid questionnaires from 204 respondents. The results showed that respondents consider the service quality of the websites is still under their expectation. Moreover, we successfully identified important features of property websites, where some of them are currently not available in property websites in Indonesia.

KEYWORDS

E-commerce, service quality, SERVQUAL, property website, property website features

1. INTRODUCTION

The number of Internet users in Indonesia is increasing each year. Based on data released by Internet World Stats, the number of Internet users in 2000 was two million users and has risen to 30 million users in 2010. This growth rate is likely to increase further as the number of Internet users in Indonesia is only about 12.3% of the total population. A drastically increasing number of Internet users in Indonesia are facilitated by the growth of mobile phones, which are cheaper than personal computers, thus enabling its users to access the Internet easily. Approximately 85 million telecom subscribers in Indonesia have a mobile phone with GPRS enabled.

In line with the growth of the Internet, e-commerce websites as place for buying, selling or exchanging products, services, and information via computer networks, including the Internet (Chaffey, 2007; Hidayanto et al., 2012b) were also growing significantly. Particularly in Indonesia, starting from 1995, dozens of e-commerce companies were established, such as online bookstores sanur.com, ekuator.com, and travel agents like indo.com. Despite many such e-commerce companies are fallen, some of them are still exist.

The growth of the property market in Indonesia in 2012 is predicted to be improved in line with the economic growth. This means that there is always demand for property information. Therefore, we have to think about how to develop websites that meet the expectations of consumers who want to search for property information and who want to market their properties. Bardhan et al (2000) stated that Internet can provide complex information about property better than other media. Moreover, Internet also can shorten cycle and cost of transaction in real estate (Nedelman, 1999).

Currently, there are several e-commerce sites that provide property information in Indonesia. However, these sites commonly share similar features and none of them offer any additional advantage. The differences of these sites are mostly in terms of appearance only, not in their functionalities. On the contrary, similar websites abroad such as trulia.com, offer a lot information and functionality such as the location of nearby schools, interaction between users, and even utilize the GPS feature on a mobile phone to guide them to the property location they seek.

It is important to measure the quality of these websites. Many researchers have proposed some models to measure the quality of websites such as work of Barnes and Vidgen (2000) and Loiacono, Watson, and Goodhue (2002). Mostaghel (2006) has conducted research on the service quality of internet sites, observing the service quality from the point of view of the Internet users in Iran. The population used in this study is the site cloob.com visitor, a cyberspace community site in Iran. The results from this study were compared with similar studies in the United States, performed by Iwaarden and Wiele (2003). Easiness in navigating the site, instant access, and good searching system appear in the top 10 rankings of Iran and the United States visitor perceptions, but the rest is different.

Despite making innovative functionalities, Indonesia is a unique country as its infrastructure of information technology condition is still limited such as the bandwidth capacity. This situation could influence the suitable features of e-commerce sites in Indonesia. Considering some of the aspects we have explained, this research aims to contribute in the following:

- Investigate the characteristics of property information provider sites in Indonesia, particularly their quality service, to determine the level of satisfaction and expectations of users of these sites, and their implications;
- Formulate ideal requirement of property information provider sites, particularly its features.

It is expected that we can contribute to help the developers of e-commerce property information sites in Indonesia in order to gain insight about the visitors' characteristic of these sites, their satisfaction and expectations as well. In addition, the results of this study can also be used as a benchmark basis in formulating strategies of developing property sites in Indonesia.

2. SERVICE QUALITY OF WEBSITES

Customer satisfaction is one of the goals that every company wants to reach. According to Kotler (2002), satisfaction is the happy or disappointed feeling of someone after comparing the perception or impression of the performance (or outcome) of a product with their expectations. This means that the performance could be under their expectations, which means the customers are not satisfied, or the performance is equal to or above the expectations of the customers, which means the customers are satisfied.

Regarding e-commerce websites, the reason for satisfying customers is to assure that customers will purchase or repurchase from the website. There are various ways to retain consumers to keep visiting the companies' e-commerce site, such as visitors could customized the site according to their wishes, giving options for visitors to subscribe to the site to get the updates via e-mail, providing customer interaction features, as well as providing secure transactions (Hidayanto et al., 2012a; Luo, 2002; Udo, 2001). Finally, such efforts are established to improve the quality of services provided by e-commerce website.

In order to see the customer perspectives on service quality, many researchers have proposed frameworks to measure the customer satisfaction level. Among these frameworks, there are SERVQUAL (Parasuraman et al., 1988), E-S-QUAL (Parasuraman et al., 2005), and WebQual (Barnes and Vidgen, 2000). The comparison of dimensions used in measuring customer satisfaction can be seen in Table 1.

Table 1. Comparison of some service quality measurement methods

Researcher	Method	Dimension
Parasuraman, et al. (1988)	SERVQUAL	Tangibles, Reliability, Responsiveness, Assurance, Empathy
Parasuraman, et al. (2005)	E-S-QUAL	Efficiency, Fulfillment, System availability, Privacy, Responsiveness, Compensation, Contact
Barnes and Vidgen (2000)	WebQual	Usability, Design, Empathy, Information, Trust

According to Parasuraman et al (2005), the main purpose of the WebQual is to give useful information for the design of the site, not to measure the quality of service experienced by users. We considered SERVQUAL as the most appropriate method for our case as it contains quite a lot of aspects to measure, so it can address the problem in this study. E-S-QUAL is not selected as aspects discussed in this method could not describe the service quality on the property information provider site.

3. METHODOLOGY

This research used the SERVQUAL basic model developed by Parasuraman et al. (1988) to measure the quality of property information provider websites in Indonesia. The questions contained in the questionnaire using aspects of website quality developed by Cox and Dale (2002), with respect to the dimensions of SERVQUAL. In addition, we measured the perception of the visitors regarding the features contained in the property information provider websites. Later, we used both of the information to formulate the strategy for developing the property information provider websites. The proposed model of our research is shown in Figure 1.

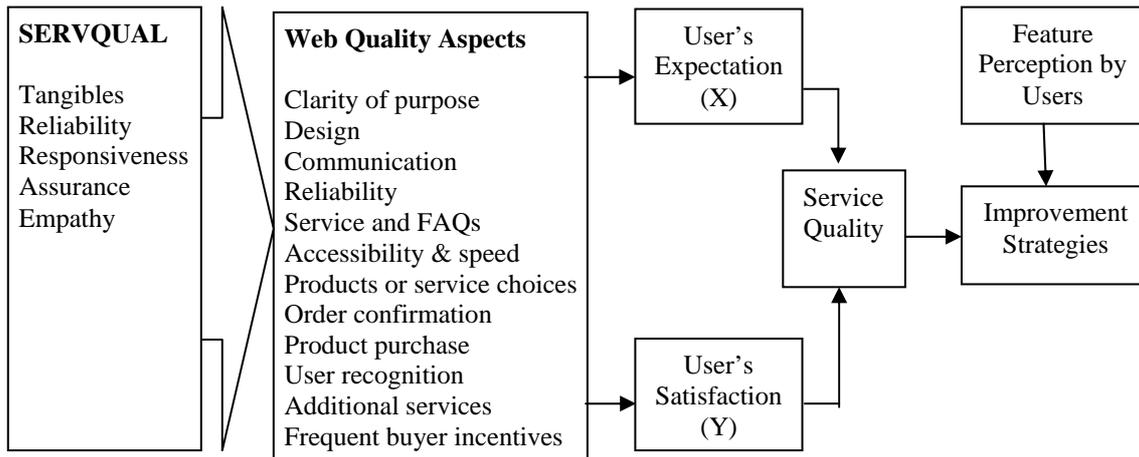


Figure 2. Research model

Regarding the quality assessment of property sites, there are three variables measured in this study. The first variable (X) is the expectation of respondents to property sites in Indonesia. The second variable (Y) is the satisfaction of the respondents with respect to the performance of the property sites in Indonesia. Last is the perception of the available features on the property websites according to the respondents. Therefore, we outline our hypothesis as follow:

H: There is a difference between expectations and satisfaction of the property site visitors in Indonesia.

In order to test our hypothesis, we developed a questionnaire which comprises two parts. The first part contains questions regarding the assessment of property websites service quality. The second part contains questions regarding important features expected by users. The questions in the first part were based on Iwardeen and Wiele (2003) who have studied the application of SERVQUAL on websites. The structure is based on the SERVQUAL questionnaire, but the aspects are defined according to the questions' categories of website quality developed by Cox and Dale (2002). Categories of website quality that will be measured are: clarity of purpose, design, communication, reliability, service and frequently asked questions, accessibility and speed, the product or service selection, order confirmations, purchasing the products, user recognition, additional services, and incentives for active users. Afterwards, these aspects are grouped according to SERVQUAL dimensions which are tangible, empathy, assurance, responsiveness, and reliability. The questions in the second part were developed by listing features of property websites from Indonesia and outside of Indonesia such as trulia.com, Rumah.com, Rumah123.com, PropertyKita.com, and Century21.co.id.

Each question was measured by using 5 (five) Likert scale. This Likert scale was adjusted according to the measured variables. To measure the expectation and features variable, the Likert scale was represented by the words of "Not Very Important" to "Very Important". To measure the visitor's satisfaction variable, Likert scale was represented by the words of "Very Dissatisfied" to "Very Satisfied".

Questionnaires were distributed over the Internet as an online questionnaire. We published the link that will direct the Internet users to a website that contained the online questionnaire. In addition, we also visited the largest property exhibition in Jakarta. In this exhibition there are many property developers, especially the sales and marketing team and also customers who look for information about property they want.

4. ANALYSIS AND DISCUSSION

4.1 Validity and Reliability Testing

We distributed questionnaires to 204 respondents and only 101 respondents answered all questions (thus we consider only 101 valid questionnaires to be processed). Our respondent locations are dominated from Jakarta (33%), Depok (22%), Bekasi (11%), and the rest are from Bandung, Batam, Bogor, Boyolali, Denpasar, Makassar, Malang, Pontianak, Surabaya, Surakarta, Tangerang, Wonogiri, and Yogyakarta. In terms of age, our respondents' age is between 26-30 (44%), 21-25 (26%), and the rest above 31 years old. In addition, 83% of our respondents are bachelor and master degree holder.

Based on the validity tests, it is found that the value of CI-CT (r count) is greater than the r table value of 0.1956 in $df = 99$ ($101-2$) on all of its variables. Thus it can be concluded that our instrument is valid. In addition, the values of Cronbach alpha in all SERVQUAL dimensions are greater than 0.7. Thus, it also can be concluded that our instrument is reliable. Table 2 summarizes the values of Cronbach Alpha for each SERVQUAL dimension for both expectation and satisfaction variables.

Table 2. The reliability test result of expectation and satisfaction variables

SERVQUAL dimensions	Cronbach Alpha	
	Expectation	Satisfaction
Tangible	0.829	0.908
Empathy	0.765	0.880
Assurance	0.785	0.858
Responsiveness	0.823	0.883
Reliability	0.876	0.902

We also conducted validity and reliability testing on a feature variable which is used to see which features among 37 tested features are important for users. After examining all CI-CT values (r count) which are greater than the r table value of 0.1956 in $df = 99$ ($101-2$) and Cronbach Alpha value of 0.953, it is can be concluded that our instrument to select important features is also valid and reliable.

Hypothesis testing was done by using Paired-Samples T Test in SPSS program and it was found that the Sig (2-tailed) is below 0.05 (5%) which is 0.000. It is proved that under the hypothesis there are differences between users' expectations and satisfaction levels. A summary of testing can be seen in Table 3.

Table 3. Pair importance satisfaction

	Paired Differences					t	df	Sig (2-tailed)
	Mean	Std Deviation	Std Error mean	95% Confidence Interval of the difference				
				Lower	Upper			
Pair Importance Satisfaction	.99977	.25819	.03937	.92031	1.07923	25.391	42	.000

4.2 Analysis of Service Quality

Table 4 shows the top five factors with the highest and lowest expectation score of service quality. This resembles factors which are considered important and not important in the users' point of view of property websites. According to Table 4, it can be seen that the factors regarding property information dominate the top five of the highest expectation score, such as "Status of the property is clear, whether it is still available for sale/lease/contract or already sold" which is placed in the first rank and is considered as the most important factor. This shows that visitors do not want to spend time with fictitious information. Visitors of property websites also want information about property in a greater detail and not only its basic information such as location and phone number of the seller, but also information about the characteristics and price of the property.

Table 4. Top five factors with the highest and lowest expectation score

Service Quality Factors	Expectation mean	Service Quality Factors	Expectation mean
Status of the property is clear, whether it is still available for sale/lease/contract or already sold.	4.62	Web and information can be organized in accordance with the user needs.	3.51
Website can be accessed quickly	4.60	The page is not overly extends downward.	3.65
Detailed information of property price is available	4.58	Privacy policy is accessible	3.71
Detailed information of property characteristics is available	4.52	Security policy is accessible	3.74
Website can be accessed at any time	4.49	There is a platform/media for sharing information between users	3.78

Assurance and design aspects dominate the top five factors with the lowest expectation score, given by the respondents. Visitors of the property websites in Indonesia prioritize more on property information rather than design and assurance offered by the website. Privacy and security policy are also considered to be unimportant aspects due to the absence of transaction or exchange of data within the website. Visitors who are just looking for property information do not even need to register in order to see the information. Financial transactions such as online payment are also still rarely adopted in property websites, thus it explains why users do not consider these as important aspects. However, all aspects we tested are considered important as average rating of each feature is above 3.51.

Table 5 shows the top five factors with the highest and lowest satisfaction score of service quality. It can be seen that among all factors examined in this study, the speed of accessing website is ranked first as the most satisfying factor. Respondents also feel convenient and easy when exploring and navigating through the website. Whilst factors that are considered as the most unsatisfactory is the willingness of the owner of the website to answer any questions or complaints. The property status changes are also not informed, so that respondents are not aware of the changes that occur.

Table 5. Top five factors with the highest and lowest satisfaction score

Service Quality Factors	Satisfaction Mean	Service Quality Factors	Satisfaction Mean
Website can be accessed at any time	3.50	Questions or complaints can be resolved within 24 hours	2.75
Website offers options for new or already registered user. New users are given the option to register, while registered users are provided a login form.	3.40	Users get information on progress/ changes/offers contained in the website	2.92
The website can be explored and navigated easily and not confusing	3.38	Users do not need to do a lot of "clicks" to get some information	2.94
The registration process is easy and simple	3.36	Animations contained in the website do not disturb or make users feel uncomfortable when finding or reading information	2.95
The intent and purpose of the website is clear, either as provider of information or gives the opportunity for the users to contribute information in it	3.34	It is easy to print information from the website	2.98

4.3 Analysis of SERVQUAL Dimensions

As we explained in the Methodology section, after examining the score of each variable, we also aim to group such variables according to SERVQUAL dimensions, which are tangible, assurance, responsiveness, reliability, and empathy. We see the gap between expectation and satisfaction scores to determine which dimension should be get more attention from the property website developers. Table 6 shows the

SERVQUAL dimensions and their respective expectation, satisfaction, and gap scores. The negative gap score indicates that the satisfaction on the corresponding dimension does not meet with the users' expectation.

Table 6. Score of SERVQUAL dimensions

Dimension	Expectation	Satisfaction	Gap
Reliability	4.3377	3.1991	-1.1386
Responsiveness	4.2884	3.1275	-1.1609
Assurance	4.0495	3.1327	-0.9168
Tangible	4.0495	3.1312	-0.9183
Empathy	3.9736	3.0968	-0.8768

Among the five dimensions, reliability is considered as the most important dimension value is the expectation, followed by responsiveness, assurance, tangible, and empathy as the least important. This shows that most respondents seeking for speed when accessing the property websites. Reliability is also considered as the most satisfying dimension among other five dimensions. It means that most of the property websites in Indonesia can be accessed at any time and provide reliable connections. If we look at the respondents, most of them reside in Jakarta and greater part of Jakarta, which of course has a good Internet connection. It also explains why they consider the reliability as the most satisfying dimension.

If we look at the gap score, responsiveness has the highest gap among other dimension. As we explained, most of respondents feel that the website owners tend to give slow response or even ignoring when they ask something. It explains why most of respondents feel that the website owners are unresponsive.

4.4 Analysis of Important Features

Most of property websites in Indonesia are still adopting minimal features in their websites. On the contrary, many famous property websites such as trulia.com have utilized more advanced features such as the implementation of videos in their website. However, according to our results, most of the respondents consider such advanced features as not important as can be seen in Table 7. This is due to unsatisfactory Internet infrastructure in order to access such advanced features.

Table 7. Top ten expected features on property websites

Features	Mean	Features	Mean
Detail data about the property such as land area, building area, number of room, etc.	4.52	Personal information of seller such as name, telephone, email, etc.	4.14
Property location map	4.51	Property catalog	4.11
Property photos	4.49	Search engine for search property based on particular criteria	4.08
Facilities near property such as school, hospital, market, etc.	4.34	List or catalog of property agents/sellers	4.02
Direction to property location	4.29	List or catalog of property developers	4.02

The comprehensive property information page is the most wanted feature. Additional information such as photos, maps, driving directions, catalog list, etc. could be accessed by visitors themselves without contacting the property agent. The common features on most property websites are the map (location) of the property, direction information from the visitor's location to the property and also a catalog from the property developers. However the expected feature that respondents want is to get an exact location of the property and not just a street name or even the name of the area only.

We also mapped the most expected features by visitors to the features owned by the most popular property websites in Indonesia which are www.rumah.com (A), www.rumah123.com (B), www.propertykita.com (C) and www.century21.co.id (D) as summarized in Table 8. We can see that none of these property websites meet user expectations yet. These four websites even do not provide information about direction to the property location. Thus, these property websites need to improve their features in order to accommodate user expectations.

Table 8. Compliance of the most expected features to most popular property websites in Indonesia

Features	A	B	C	D
Detail data about the property such as land area, building area, number of room, etc.	√	√	√	√
Property location map	√			√
Property photos	√	√	√	√
Facilities near property such as school, hospital, market, etc.				√
Direction to property location				
Personal information of seller such as name, telephone, email, etc.	√	√	√	√
Property catalog	√	√	√	√
Search engine for search property based on particular criteria	√	√	√	√
List or catalog of property agents/sellers	√	√	√	√
List or catalog of property developers			√	

4.5 Research Implication

According to the Chairman of REI (Real Estate Indonesia), Setyo Maharso, national property sector in 2011 experienced a good growth and will continue to grow in 2012. One of property websites in Indonesia, PropertyKita.com, states that the number of its visitors in 2011 increased 400% over the previous year. This means the property websites in Indonesia have been considered as one of main media to seek property information. In addition, in 2011, several property websites are acquired by foreign parties as Rumah.com that was acquired by AllPropertyMedia and Rumah123.com that was acquired by IPGA Ltd. This indicates that the property websites have a good future in Indonesia.

In order to satisfy their visitors, property websites in Indonesia must continue to innovate and to develop their websites. Based on our results, there are gaps between expectations and satisfaction of visitors to the property websites in Indonesia. This means that visitors have higher expectations than the performance of the property websites. Property website developers need to evaluate and benchmark with overseas sites, so as to have a comparison and development plans in the future.

Considering the most important features according to respondents, detailed information about the property is the cornerstone of the property websites, as shown in Table 7. Clarity status of the property is necessary for visitors in order to not waste their time by reading properties that are currently unavailable. Property website developers also need to improve their features, particularly regarding to property location map, nearby public facilities, direction to property location and also list of property developers and their reputation. These features were found to be missing in most of property websites in Indonesia.

5. CONCLUSION

This research aims to assess the services quality of property websites in Indonesia and their important features. The results of this study showed that the satisfaction of respondents to the property websites in Indonesia is still lower than their expectations, which means that there are service quality gaps. Among all aspects we examined, we found that there are five aspects which have the highest gap, namely: question or complaint which could be resolved within 24 hours, the clarity of the property status has been sold or not, the availability of detailed information about property characteristics, the site can be accessed quickly, and the availability of detailed information of property prices. In addition, results of our analysis according to SERVQUAL dimensions, it showed that responsiveness dimension has the highest gap. In terms of important features according to respondents' perception, we found that most of property websites in Indonesia missing to implement some important features such information about public facilities near property location, the location maps, property developers' catalogs, and directions to the property location. Therefore, the website developers should be able to provide clear and complete property information, including information related to the property and the seller as well.

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