Assesing the Electronic Service Quality using *E-S-Qual* and *Importance Performance Analysis* Combined Method

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Abstract. Internet is an integral part of any service provider activity which serve millions of users with variety of needs throughout the world. The function of internet is widely used and adapted by companies providing services in the form of business transactions, electronically or by means of e - commerce. The quality of service provided is vital to each company's success. This case study was conducted in one of the biggest companies engaged in Indonesia's online shopping business: LAZADA. Assessing the quality of electronic services provided by LAZADA using a combination of E - S - Qual and IPA methods to know the quality of services provided by LAZADA and how customer perceive LAZADA's service. The result of this study procured E - S - Qual value as 2.5 out of a scale of 5, which shows that a lot of things can still be explored by LAZADA in providing services for the customers. Perceptions or expectations of the customers that have not been fulfilled in LAZADA's service delivery are: appropriate duration of delivery, the certainty of the number of goods ready for shipment, and out of stock items.

1. Introduction

In this globalization era, Internet is an integral part of any service provider activity which serve millions of users with variety of needs throughout the world. With more than 3 billion users the Internet became a universal tool, globalizing dimensions worldwide. In addition, the Internet has also become a general and universal tool of information for people, be it at home, school, or work. Within a few years back, the internet become the change to communication and business.

Within the business scope, extremely high market competition conditions as it is now makes the Internet both integral and impactful for companies in various fields of business, particularly in the service providing sector. The consequences or effects of internet use in service-providing sector also impacted on the shift of conventional service providers to internet-based service providers. Those companies grab the opportunity to use electronic transactions and electronic commerce (e-commerce) to interact with consumers/customers.

The main key of success or failure of a company that uses the concept of electronic transactions is not just the web interface offered nor a low price, but rather the electronic service (e - service) quality [1].

The concept of conventional service quality itself has been researched and developed many times. Service Quality itself is one of the critical factors of a successful service provider, because of it is close relation to customer satisfaction. Moreover, the increase of customer satisfaction will cause positive impact on the company's own service providers, such as repurchasing (repeat purchases), customer loyalty and profit [2]. However, e-service quality is different from the conventional-based service quality that includes interaction between the seller and the buyer. The E-S-Qual or Electronic Service Quality is an overall customer assessment of the e-service's delivery in the virtual market [3].

In Indonesia alone, a lot of companies and businesses have utilized Internet to interact with customers. One of them is LAZADA online - shopping. LAZADA itself is one of the largest electronic commerce (e - commerce) in Southeast Asia, reaching 91.4 million dollars in terms of profit during the first 6 months of 2015, equivalent to more than 1 billion IDR (http://www.aitinesia.com),

With a broad marketplace and a huge advantage, theoretically it will have excellent and satisfying service for each customer. High quality service will form customer satisfaction and create customer loyalty [4].

But in reality, the quality of service provided by Lazada is not as expected of one of the largest e - commerce in Indonesia. Based on a review by a company website reviewer, according to comments and reviews as well as ratings given by customers, the quality of service provided by Lazada stands at 1.9 / 5, which categorized as very low (http://trustedcompany.com). One of the reviewer on the website (a customer or prospective buyer of Lazada) wrote Lazada delivery performance as very poor, another potential customer wrote that Lazada disappointingly cancelled order unilaterally.

Customer complaints as written above, if not taken seriously by the company concerned will cause many losses for the company itself. Consumers lack of loyalty, the number of complaints, will lead to lower financial gains.

Therefore, research is needed to assess Lazada's quality of service. Because Lazada itself is an online shopping mall, it can be done using Electronic Service Quality (E-S-Qual) method to assess Lazada online shopping store quality of service.

This study aims to assess the quality of electronic service using a combination method of E-S-Qual and Importance Performance Analysis, it is useful in concluding the expectation of customers of a service contrasted to the reality of service given by Lazada. By using a quadrant graph, the following things will be known: the important but not satisfactory, satisfactory and important, not important but satisfactory, not important and not satisfactory, and unsatisfactory. With the combination of both methods, useful suggestions for improving the quality of service in Lazada will be further provided.

2. Research Methodologies

The E - S - Qual scale or dimension by [5] is used in this study to assess the quality of electronic service, it consists of four dimensions with 22 items statement. The dimension ratings for E - S - Qual is efficiency, system availability, fulfilment, and privacy.

The first dimension of E - S - Qual is efficiency (EFF), defined as the ease and speed of website use or the ease of electronic transaction. In other words, easy to use, neatly arranged, and minimal amount of information needed to be entered by the customer. The second dimension is the System Availability (SYS) which is the technical function rating of the online shopping website. The third is fulfilment as in fulfilment of goods and promises offered to customers. And the fourth is Privacy, namely the security offered by providers of online shopping, for both security and confidentiality of the data entered by customer.

Electronic Service Quality (E - S - Qual) then measured with the following formula 1.

$$E - S - Qual = \sum_{i=1}^{n} WS_{ij} \times PS_{ij} \quad (1)$$

Whereas E - S -Qual equal the value of the item statement, WSij the weight factor of statement J against I, and PSij is the value obtained from i against j statement. The weight factor alone is the result of normalization and justification of importance value which can be formulated at formula 2.

$$WS_{ij} = \frac{IS_{ij} - \min(IS_j)}{max(IS_j) - min(IS_j)} \quad (2)$$

Whereas ISij is the value of the quality of service significance per j statement item against each i.

After that a priority matrix (Importance Performance Analysis) will be depicted to determine the interests and perceptions of each customer to LAZADA, and how the service benefit to these interests.

3. Result and Analysis

The item statement used refer to [5]. Two parts of the questionnaire are used, the first is to assess e-service quality using E - S - Qual method and the second is to assess the importance of each statement itself. In this questionnaire the prerequisite are respondents aged 16 and older that have shopped at online shopping store LAZADA beforehand.

Table 1 Dimensions and Item Statements of E – S – Qual

Dimensions	Item Statements
Efficiency	EFF1: The site makes it easy to find what the customer needs. EFF2: It makes it easy to get anywhere on the site. EFF3: It enables the customer to complete a transaction quickly. EFF4: Information at the site is well organized. EFF5: It loads its pages fast. EFF6: The site is simple to use. EFF7: The site enables the customer to get on to it quickly. EFF8: The site is well organized.
Fulfillment	FUL1: It delivers orders when promised. FUL2: The site makes items available for delivery with-in a suitable period. FUL3: It quickly delivers what the customer order. FUL4: It sends out the items ordered. FUL5: It has in stock the items the company claims to have. FUL6: It is truthful about its offerings. FUL7: It makes accurate promises about delivery of products.
System Availability	SYS1: The site is always available for business. SYS2: The site launches and runs right away. SYS3: The site does not crash. SYS4: Pages at this site do not freeze after the custo-mers enter the order information.
Privacy	PR1: It protect information about the customers' web-shopping behavior. PR2: It does not share the customers' personal informa-tion with other sites. PR3: The site protects information about the customers' credit card.

One hundred and eighty respondents have participated in filling out the questionnaire, consisting employees, students, civil servants, entrepreneurs, and of other positions or occupations. Then a reliability test using Cronbach's Alpha was conducted to check the validity and the correlation value given by respondents for each statement [6]. Cronbach's alpha value of each statement are shown in Table 2. It is known that the value of

Cronbach's alpha for each statement stated as more than 0.7, indicating the questionnaire used as reliable.

Table 2 Cronbach Alpha for Each Dimension of E – S – Qual

Dimension	N of item	Cronbach's Alpha
Efficiency	8	0.923
System Available	4	0.849
Fulfillment	7	0.709
Privacy	3	0.832

The average value of each item then measured with formula (1) and (2). The results of the Electronic Service Quality calculation are shown in the Table 3.

Table 3 E – S – Qual Result

Dimensi	I	W	P	ESQ
EFF1	4.02186	0.75546	4.04372	3.0548837
EFF2	4.13661	0.78415	4.13661	3.2437367
EFF3	4.06557	0.76639	4.06011	3.1116411
EFF4	4.07104	0.76776	4.06557	3.1213831
EFF5	3.97814	0.74454	3.98361	2.9659366
EFF6	4.08197	0.77049	4.08197	3.1451223
EFF7	4.06557	0.76639	4.05464	3.1074532
EFF8	4.03279	0.75820	4.03279	3.0576458
SYS1	4.14208	0.78552	4.14208	3.2536803
SYS2	3.96721	0.74180	3.96721	2.9428917
SYS3	3.66120	0.66530	3.66120	2.4357998
SYS4	3.90164	0.72541	3.90164	2.8302876
FUL1	4.03825	0.75956	1.89071	1.4361134
FUL2	4.14208	0.78552	1.89071	1.4851892
FUL3	3.84153	0.71038	2.11475	1.5022843
FUL4	4.26230	0.81557	1.61202	1.3147227
FUL5	4.23497	0.80874	1.69399	1.3700021
FUL6	4.07650	0.76913	1.57923	1.2146302
FUL7	3.95628	0.73907	1.85792	1.3731374
PRI1	4.16393	0.79098	4.16393	3.2936039
PRI2	4.20219	0.80055	4.20219	3.3640449
PRI3	4.00546	0.75137	4.00546	3.0095703
Electronic Service Quality				2.5288073

Based on the results of the E - S – Qual calculation, it is found that the value obtained was 2.5 out of a maximum scale of 5. This means that there are still many things LAZADA can further explore for the sake of customer satisfaction.

According to the dimensions measured, it is found that the dimensions of Privacy or security has the highest value which is 3.224, this signify the safety and comfort that

customers feel in entering data during the process of buying and selling at LAZADA online store. Meanwhile the lowest eservqual value is of the last dimension: fulfillment, which has a maximum value of 1.3852 on a scale of 5. This proves that both customer and prospective customer of LAZADA online store find that Lazada's fulfillment of goods lack a good criterion. Among them are items sent not as scheduled and proneness to deliver goods which are inconsistent with the booking made by customer. Additionally, LAZADA is often out of stock of the goods offered which resulted in unilateral cancellation by LAZADA, further causing costumer dissatisfaction. Then an IPA matrix was depicted to determine prioritization of what customers want [7]. Priority matrix (Importance Performance Analysis) is described as figure 1.

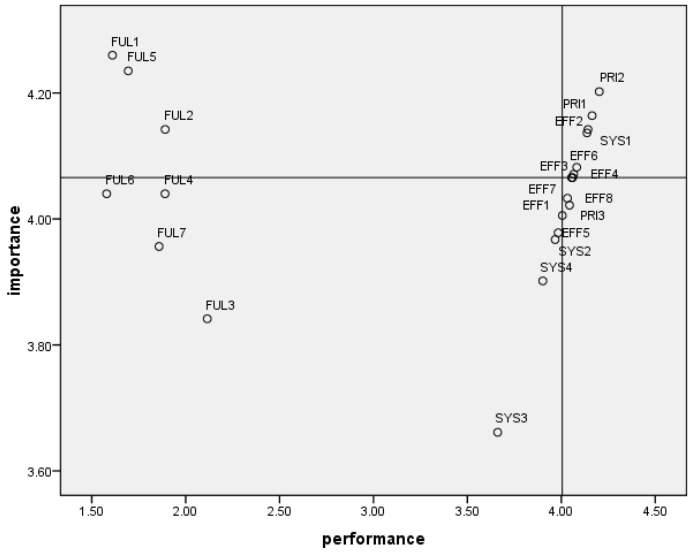

Figure 1 Importance and Performance Matrix

Based on the prioritization using importance performance analysis matrix the following results are obtained:

- There are eight factors that go into Quadrant I, namely PRI2, PRI1, EFF2, SYS1, EFF6, EFF3, and EFF4, and EFF7. This quadrant shows High Importance and High Performance, which are factors considered very important by customer and performed or provided excellently by the manufacturer or service provider. For example, in PRI2 "LAZADA do not share my personal information to another party", which means that the customers think of it as a very important factor and LAZADA provided this service excellently.
- There are three factors included in Quadrant II. The factors are EFF8, EFF1, and PRI3. Quadrant II is introduced as Low Importance High Peformance, where the factors deemed as less important by customers but are provided excellently by LAZADA. For examples is EFF8 "LAZADA Online Shopping Webite is well organized", for customers it is not too important but LAZADA provided the service splendidly. In this quadrant the producers considered to be excessive in providing services.
- There are eight factors included in Quadrant III, namely EFF5, SYS2, SYS4, SYS3, FUL3, FUL7, FUL6 and FUL4. Quadrant III is introduced as Low Importance and Low Performance, interpreted to comprise factors that is not too important for the customers and not properly provided by the service provider itself.
- Next, there are three factors included in Quadrant 4. Namely FUL1, FUL5, and FUL2. This quadrant can be considered as the most important quadrant. It is introduced as High Importance and Low Performance, which include factors deemed important by customers but has low level of performance or provision by LAZADA.

4. Conclusion

Based on the results of the E - S – Qual calculation, it is found that the value obtained was 2.5 out of a maximum scale of 5. This means that there are still many things LAZADA can further explore for the sake of customer satisfaction. The factors that are deemed important by customers but has low level of performance or provision by LAZADA include FUL1, FUL5, and FUL2. These factors are: Lazada's inability to send orders according to it is scheduled time, Lazada did not assure the availability of the item offered and LAZADA is often out of stock of the goods offered which resulted in unilateral cancellation by LAZADA. Proposed improvements regarding point number 2 above are the evaluation of supplier performance and goods checking on a regular basis as well as database management.

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