

## Applying Importance Performance Analysis (IPA) Method in Analyzing Level of Service Quality

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### ABSTRACT

The more the startups are established in Indonesia, the higher the competition for companies in offering their products and services to customers. In overcoming increasingly fierce business competition, Bliin always makes efforts to improve the quality of service on its application with the aim of creating customer satisfaction. This research employed a descriptive, quantitative method. The population in this study comprises the users of Bliin application who have made transactions and live in Bandung City. The sample used amounted to 191 respondents. The data were collected through questionnaires. The analysis method used the Gap analysis and Importance Performance Analysis (IPA). Based on the Gap analysis method, the overall Gap average value shows the results (-0.43) However, from the overall value per attribute item, almost all attributes are negative. There are only three attribute items that are positive. On the overall average value of the level of performance of (3.73) is smaller than the level of importance or expectation of (4.16). This indicates that the perceived service < the expected service which means that the perceived performance is not as expected. From the results of the IPA analysis method on the Cartesian diagram mapping, there are 9 attributes in quadrant I (high importance and low performance) and 8 attributes in quadrant II (high importance and high performance).

Keywords: Service Quality, Gap Analysis, Importance Performance Analysis (IPA)



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### INTRODUCTION

The more the startups are established in Indonesia, triggering an increase in digitization of all sectors of human life, making more conventional businesses transform into digital businesses,

taking advantage of digitalization in companies and their business lines, doing marketing in the digital space and making a much wider range of business. The market condition that relies heavily on mobile smartphones has become an opportunity and is being used by one of the startups that is currently developing in the city of Bandung, namely Bliin, an online logistics service that has a business focus on the distribution of digitalization of traditional markets, MSMEs and nearby warungs. By utilizing a mobile smartphone, Bliin comes with the purpose to facilitate shopping to the traditional market, SMEs and the nearest shop without having to leave home. Bliin was founded in 2019, and in 2020 Bliin officially launched an e-service in the form of the Bliin mobile application that can be downloaded by android users via Google playstore. To be able to attract customers, companies must pay attention to several aspects of marketing, not only by providing the best products and services but also by providing the best quality service to attract customers' attention. Service quality is determined based on the importance of service dimensions (Parasuraman et al., 1988, 1991). In overcoming increasingly fierce business competition, Bliin always makes efforts to improve service quality on applications with the aim of creating customer satisfaction. In some situations the quality of service provided by Bliin is still not in line with the expectations of some customers, as indicated by complaints received from consumers regarding the services received.

Service quality has been recognized as an integral part of the growing commitment of the service industry to provide quality services to customers, and therefore service companies are allocating more resources to quality measurement and management (Parasuraman et al., 1991, 1994). Central to the growing interest among practitioners in understanding what drives customer perceptions of service quality is the need for diagnostic information. This is important because service quality provides impetus for customers to build closer relationships with the company, the existence of service quality can increase customer satisfaction by maximizing the experience in using their products (Parasuraman et al., 1988, 1991, 1994), this is closely related to creating profits for the company.

Determining the level of service quality on a mobile application is considered an important step in the process of long-term economic sustainability of a business. In measuring the quality of mobile application services, it can be measured by the convenience provided by the company through the media. This is important considering how the delivery of services through the website remains important to be managed properly (Zeithaml et al., 2002). In addition, this multidimensional issue in the concept of online service quality remains important to be managed properly considering the continuous expansion in internet use for various purposes which creates a large enough demand for electronic services (Yousif, 2015). There is no doubt that electronic services – even though they are free of charge – cannot be provided without guaranteeing an appropriate amount of reliability, trust and integrity in the treatment of the company's customers. It is worth mentioning that all contemporary corporate websites use references that demonstrate their commitment to privacy principles.

Meanwhile, previous literature reviews have assessed the concept of service quality as a causal determinant of consumer behavior such as loyalty (Caruana, 2002; Wong & Sohal, 2003) or satisfaction (Caruana et al., 2000; Lee et al., 2000; Oh, 1999; Sulistyan et al., 2017) or repurchase intention (Kitapci et al., 2014), and strategic variables such as market share and profitability (Deo et al., 2017). It is noted that previous research has reviewed the dimensions of service quality in various contexts, for example in higher education services (Brochado, 2009; Sharabi, 2013), services in cooperatives (Hidayati et al., 2016), as well as in health services (Kalijogo, 2019; Novira et al., 2020). However, although there are many references in the literature on the strategic benefits of service quality programs there is no uniform level of understanding of how perceived service quality should be measured or how it relates to a wider variety of variables important to the strategic objectives of the firm. Although much is known about how customers perceive service quality, models that assist managers in determining exactly where to address specific service performance areas are often not proven in the literature. Service provision also involves more than

one party and multiple actions and this is reflected in the potential multidimensional nature of service quality (Novira et al., 2020; Prakash, 2019; Yang & Fang, 2004). While service providers may deliver services and therefore tend to measure quality according to an economy-based paradigm, regulators (such as governments) can measure quality on an operations-based paradigm and consumers according to a marketing-based paradigm, leading to conflicting expectations regarding quality. These three paradigms will certainly produce various differences, especially in expectations and real conditions that are actually felt by service users.

In its development, the concept of service quality can be measured using the dimensions of the E - ServQual method, E-Service Quality is defined as an extension of the ability of a site to facilitate shopping, purchasing, and distribution activities effectively and efficiently (Deo et al., 2017). The dimensions of E – ServQual that can be used to measure service quality on the internet network (Zeithaml et al., 2002), are: efficiency, fulfillment, system availability, privacy, responsiveness, compensation and contact. Previous research such as Lasyakka (2015) reviewed the dimensions of eService quality which include reliability, website design, security, and customer service have a positive and significant effect together on perceived value. The use of Importance Performance Analysis has been widely used in several previous empirical studies. In the context of online services, the IPA method has the main function of displaying information about the factors of service that greatly impact on satisfaction and loyalty to certain e-commerce according to consumers' minds (Andayani, 2018). In the context of clinical services for patients, the IPA method can be used to seek to improve the quality of primary clinical service quality with Service Quality analysis and Importance Performance Analysis (Kalijogo, 2019). The use of this IPA method is also recognized in efforts to improve the quality of the Detik.com site (Apriliani et al., 2020) as well as in optical services in supporting user satisfaction (Chandra & Novia, 2019).

In determining the service quality gap, there is also an Importance Performance Analysis (IPA) method which has the main function of displaying information related to service factors according to consumers which greatly affect their satisfaction and loyalty and service factors that according to consumers need to be improved because current conditions have not satisfactory (Andayani, 2018). Based on the phenomenon that occurs in the service quality of the Bliin application in the city of Bandung, a thorough analysis is needed to determine the quality of services offered through the dimensions of the E – Service Quality and Importance Performance Analysis (IPA) method. This study aims to review how the performance of services produced by Bliin in Bandung City according to consumer perceptions and then try to provide the best recommendations from comparisons between service performances that have great potential in encouraging Bliin customer satisfaction in Bandung City.

## **METHOD**

Descriptive quantitative research method, in this study the population is Bliin application users in the city of Bandung and has made transactions totaling 367 people. Determination of the sample in this study was carried out with the type of non-probability sampling, namely the purposive sampling technique in which 191 respondents were obtained. The data in this study used primary data and then the data was processed using SPSS Statistics 23. The data collection technique used in this study was a questionnaire. The questionnaire used in this study was a closed questionnaire in the form of a checklist. This study uses a Likert scale as the answer scale for a closed questionnaire. In this study, respondents will fill out two questionnaires to measure perceptions and expectations of the service quality of the Bliin application, with a Likert scale score of 1 to 5 (strongly disagree to strongly agree).

In this study, Importance-Performance (IPA) analysis was used to understand Bliin's perceived online service quality attributes including the level of importance and performance of online service outcomes. In the IPA grid, a set of attributes related to a particular service is evaluated

based on how important each attribute is to the customer and how the service is perceived as performing relative to each attribute (Wu et al., 2008). The four quadrants derived from the grid are known as (A) Concentrate Here – customers consider this dimension important but they think the service is not performed well, (B) Keep Up the Good Work – customers perceive this dimension as important and are satisfied with the way the service is performed, (C) Low Priority – the customer perceives this dimension as unimportant or performs well, and (D) Likely Overstated – the customer perceives the service as being well performed, but unimportant.

## RESULTS AND DISCUSSION

The majority of respondents were female as much as 73.8 percent or as many as 141 people from the total research sample who became respondents. Male respondents identified as many as 26.18 percent or as many as 50 people from the total research sample who became respondents. Looking at the age aspect, it was found that the majority of Bliin respondents were in the 21-29 year age range of 72.25 percent as many as 138 people. Respondents are in the age range > 41 years by 7.33 percent or as many as 14 people. Meanwhile, those aged <20 years showed a percentage of 8.38 percent and those aged 30-40 years showed a percentage of 12.04 percent. The majority of respondents identified the characteristics of the majority in the type of student work with a percentage of 28.80 percent or as many as 55 people and the type of work of Private Employees with a percentage of 28.27 percent or as many as 54 people. Then entrepreneurs with a percentage of 12.04 percent, civil servants 6.81 percent, housewives 17.28 percent and not working 6.81 percent.

### Gap Analysis

**Tabel 1. Gap analysis per-attribute and dimensions**

No	Attribute	Mean Performance (Perception)		Mean Importance (Expectations)		Gap P-I	
		Attribute	Dimensions	Attribute	Dimensions	Attribute	Dimensions
1	<i>Efficiency</i>	3,97		3,90		0,07	
2		3,75		4,18		-0,43	
3		3,73	3,84	4,30	4,11	-0,57	-0,27
4		3,82		4,25		-0,43	
5		3,93		3,92		0,01	
6	<i>Fullfilment</i>	3,94		4,35		-0,41	
7		3,70	3,77	4,29	4,25	-0,59	-0,48
8		3,65		4,18		-0,53	
9		3,78		4,17		-0,39	
10	<i>System Avability</i>	3,84		4,23		-0,39	
11		3,58	3,67	4,17	4,22	-0,59	-0,55
12		3,59		4,25		-0,66	
13	<i>Privacy</i>	3,76		4,32		-0,56	
14		3,71	3,77	4,21	4,29	-0,50	-0,52
15		3,85		4,34		-0,49	
16	<i>Responsiveness</i>	3,60		4,18		-0,58	
17		3,66	3,63	4,27	4,20	-0,61	-0,57
18		3,58		4,22		-0,64	
19		3,66		4,11		-0,45	
20	<i>Compensation</i>	3,64		4,14		-0,50	
21		3,79	3,73	3,75	3,94	0,04	-0,21
22		3,70		3,85		-0,15	
23		3,77		4,01		-0,24	
24	<i>Contact</i>	3,76		4,15		-0,39	
25		3,77	3,72	4,17	4,14	-0,40	-0,42
26		3,64		4,10		-0,46	

Sources: processed data 2021

Gap analysis is carried out using three reference points, namely analysis per service attribute, analysis per dimension, and analysis of the overall average. The results of the calculation of the P-I Gap can be seen in Table 3. Gap analysis per attribute and dimension. The results of the per-attribute Gap analysis show that almost all statement attributes are negative and there are only three attributes that have positive values, namely the attribute question 1 - "The Bliin application is easy to access and easy to use" with a value of (0.07), question 5 - "Display the application menu is easy to understand" with a value of (0.01) and question 21 - "Bliin provides a 100% refund service if the goods are not as ordered" with a value of (0.04). The highest negative score is in question 12 - "No crashes on the Bliin application" with a value of (-0.66). In the per-dimensional Gap analysis, all dimensions still have negative values with the highest negative value (-0.57) on the Responsiveness dimension. Furthermore, in Table 4 the overall average gap, while the overall average value of the level of performance or application performance (3.73) is smaller than the average value of importance or consumer expectations (4.16). This shows that perceived service < expected service, a service quality is said to be good if the service received exceeds what is expected. On the other hand, service quality will be said to be less good if the service received is lower than what is expected. This is because the quality of service or service is influenced by the expected service and perceived service. This situation means that the services provided by the Bliin application still need to be improved because they are deemed unsatisfactory to consumers. The value of the gap is negative, namely (-0.43), it is illustrated that if the results of the gap analysis are positive (+) then the service quality is in good criteria, if the result is negative (-) it is said that the service quality is not good, which means that the Bliin application service is included. If the criteria are not good, then improvement must be prioritized because the overall gap value shows a negative result, which means that there are still items that consumers feel are not in line with expectations and cause dissatisfaction with the service.

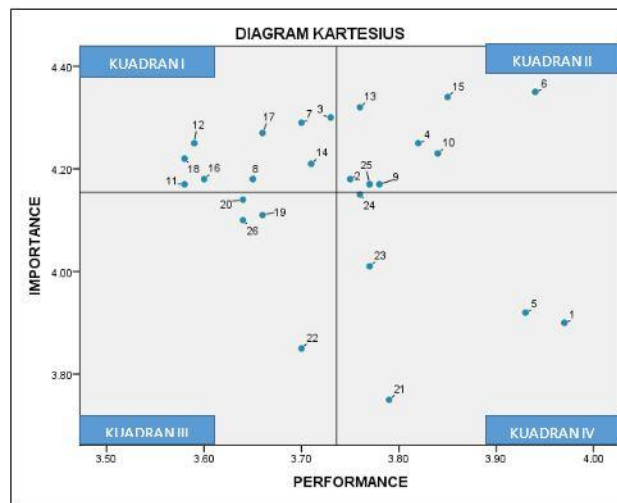
**Tabel 2. The overall average Gap**

<b>Dimensions</b>	<b>Mean Perception</b>	<b>Mean Expectations</b>	<b>Gap P-I</b>
Efficiency	3.84	4.11	-0.27
Fullfilment	3.77	4.25	-0.48
System Avability	3.67	4.22	-0.55
Privacy	3.77	4.29	-0.52
Responsiveness	3.63	4.2	-0.57
Compentation	3.73	3.94	-0.21
Contact	3.72	4.14	-0.42
<b>Overall Average</b>	<b>3.73</b>	<b>4.16</b>	<b>-0.43</b>

Sources: processed data 2021

#### **Importance performance analysis**

Importance performance analysis is done by calculating the average value for each statement attribute of the importance variable and the performance variable. Priority mapping analysis in this study was conducted on all respondents. From the data processing using SPSS 23, it is obtained a Cartesian IPA diagram for all respondents (consumers) of the Bliin application service in Figure 1. Cartesian diagram. Based on the Cartesian diagram, it shows that there are nine (9) attributes in quadrant I, eight (8) attributes in quadrant II, four (4) attributes in quadrant III, and five (5) attributes in quadrant IV.



**Figure 1. Kartesius Diagram**

Source: Data processed 2021

In Figure 1. It can be seen that the attributes included in quadrants I, II, III and IV. **Quadrant I** is a quadrant that has a high importance value and low performance, attributes that are included in quadrant I are: Easy to get the desired information on the Bliin application (statement 3), Bliin delivers goods on time (statement 7), Stock of goods listed on the application is always ready (statement 8), the Bliin application does not hang when processing transactions (statement 11), does not crash on the Bliin application (statement 12), feels safe when making transactions on the Bliin application (statement 14), Bliin able to provide the necessary information when a problem occurs (statement 16), Bliin application services are fast and responsive in responding to customer requests (statement 17), The problem handling mechanism at Bliin is running well (statement 18). In quadrant I, the company can make attribute improvements with priority suggestions as follows: the bliin application must be able to provide relevant, short and concise information, the real time delivery time feature can also provide real time chat features, update stock items regularly and provide features stock real time, upgrade the version of the application to reduce bugs/errors, bliin can provide information if a problem occurs, actively promote on social media, create menu features in the form of a "help center", optimizing application services and improving company human resources, implementing standards for handling consumer problems and complaints.

**Quadrant II** has a high importance value and high performance, the attributes that enter quadrant II are: Easy to get the desired product in the Bliin application (statement 2), Easy to make payments (statement 4), Bliin sends goods according to the order (statement 6), the offer given by Bliin is true (statement 9), the Bliin application can function properly (statement 10), the confidentiality of personal information on the Bliin application is guaranteed (statement 13), the Bliin application does not share personal data to other sites (statement 15), Availability of customer service by telephone and other media (statement 25). There are also priority proposals in maintaining attributes in quadrant II, namely: maintaining the appearance of the application menu design that is easily understood by consumers, maintaining ease of making payments by optimizing existing methods, conducting periodic checks of products displayed on the application must be in accordance with the original product, providing correct offers such as promos on products and discounted vouchers, improving the application system, providing good service and in accordance with consumer expectations to increase trust in the product/company, optimizing employees to serve with a friendly and courteous attitude.

**Quadrant III** is the quadrant that has low importance and low performance, the attributes included in quadrant III are: the bliin application is well organized (question 19), bliin provides



online warranty options for consumers who want (statement 20), bliin facilitates the collection of goods that you want to return (statement 22), the bliin application facilitates the consumer's need to talk directly to the operator when a problem occurs (statement 26). In quadrant III the company can reconsider whether to make improvements or not to make improvements to quadrant III attributes.

**Quadrant IV** is the quadrant that has low importance and high performance, the attributes included in quadrant IV are: The Bliin application is easy to access and easy to use (statement 1, The application menu display is easy to understand (statement 5), Bliin provides 100% refund service if the goods are not in accordance with the order (statement 21), Bliin provides compensation for problems that occur (not the fault of the consumer) (statement 23), Availability of online customer service in the Bliin application (statement 24). Proposed priority actions in this quadrant are: the company must be able to maintain services so that the bliin application can be accessed and used easily, the existing menu display can be maintained, the company can reduce the 100% refund service and focus on improvements in other services, the company can maintain or reduce the compensation given if it occurs problems, the company can retain the service nan online customer service on the application.

## CONCLUSION

Based on the analysis and discussion that has been described previously, The level of service quality on the Bliin Application based on data from research results for the quality of Bliin application services in the city of Bandung seen from the quality of e-servqual services (efficiency, fulfillment, system availability, privacy, responsiveness, compensation, and contact), the average Gap value overall shows the results (-0,43) has a negative value, then the service in the criteria is not good, when viewed from the overall value of the attribute value, almost all attributes are negative, there are only three attribute items that have positive values with a value (0.01) in the statement attribute "Bliin application is easy to access and easy used" - statement 1, (0.04) on the statement attribute "The application menu display is easy to understand" - statement 5, and (0.07) on the statement attribute "Bliin provides 100% refund service if the goods are not as ordered" - statement 21 . Similarly, the results of the per-dimensional gap analysis of the seven dimensions of e-servqual have negative values, the dimensions of efficiency (-0.27), fulfillment (-0.48), system availability (-0.55), privacy (-0,52), responsiveness (-0.57), compensation (-0.21), contact (-0.42). It can be seen that the per-dimensional gap analysis with the highest negative value is the responsiveness dimension (-0.57) this can mean that the response or alertness of Bliin HR in helping customers, providing services and handling complaints that are less than optimal can be one of the factors for the high gap on the responsiveness dimension. When viewed from the average value of the level of performance or application performance (3.73) it is smaller than the average value of importance or consumer expectations (4.16). This shows that perceived service < expected service means that the perceived performance is not as expected, so that referring to both of these things, Bliin's application services can be said to be not good. there are still items that are felt by consumers that are not in line with expectations.

Attributes that are in quadrants I and II based on the research results are service attributes that are considered important and get the highest importance rating. This does not mean that the quality of service in quadrants III and IV becomes unimportant, but companies must focus more on improvements in quadrant I and maintain achievements in quadrant II. Based on mapping through importance performance analysis (IPA), service quality attributes in the Bliin application in Bandung are spread across four Cartesian quadrants, and there are still attributes that need to be improved. Performance improvement in Bliin application services must pay more attention to the dimensions of each service. Its priority attributes include providing relevant, brief and concise

information such as how to place an order, Bliin includes real time time when an order is placed and provides a real time chat feature on the application, updates stock items regularly and includes information on the amount of stock available in the application. , always continue to maintain on time delivery of goods and actively involve consumers in activities on social media, create menu features in the form of a help center, optimize application services and improve company human resources to have a more professional attitude, and create and implement standard operating procedures (SOPs) for handling consumer problems and complaints in accordance with the company's business form.

For future researchers who will take up this topic, they should expand by adding samples, and can develop different analytical techniques such as analyzing the level of customer satisfaction or analyzing the correlation relationship whether there is a relationship between consumer characteristics and service quality assessments that can be useful for determining marketing strategies

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