Analysis of the Importance Degree and Performance of Internet Service Providers in Makassar City

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Abstract

This study aimed to analyse the customer experience seen from the level of actual performance and the level of importance of services provided by internet service providers PT. XYZ in Makassar City. Variables and attributes issued by TM Forum GB 912, consisting of Customer Management, Fulfillment, Assurance, and Billing, are used to analyse the performance provided by customer service in the field. The analysis technique will be carried out using the Importance Performance Analysis and Customer Satisfaction Index consisting of quadrant analysis and gap analysis used to investigate customer satisfaction and identify variables whose performance is deemed to need improvement. Data were collected using a platform-based questionnaire application form 100 respondents selected using random sampling techniques. The results showed that customers were satisfied with the performance and quality of services provided. The customer satisfaction index value obtained by CSI analysis shows a value of 82.006%.

In conclusion, the Fulfillment variable is a service variable that is considered the most critical customer and requires improvement because its performance is still relatively low. While the variables thought good and need to be maintained are the Billing variable. Other service variables are sorted based on the priority of improvement in a row, namely Fulfillment, Customer Management, and Assurance.

Keywords: *customer experience, importance-performance analysis, customer satisfaction index.*

1. Introduction

The development of the industrial world, which is entering the era of the industrial revolution 4.0 makes internet service providers increasingly important. It has caused internet services to become a significant commodity for every telecommunications company in Indonesia, one of which is internet services provided by PT. XYZ On the other hand, the telecommunications industry is at its maturity level based on *Product Life Cycle Stages* [1]. It characterised by relatively low customer costs, high-profit amounts, and a relatively constant number of competitors. When viewed from an increasingly growing market size, wherein 2019, it estimated that around 10.355 million USD market opportunities exist in this industry. It is an opportunity as well as a threat to internet service providers, so it must be even better in providing services to their customers.

With market conditions that have reached maturity levels, the company has the additional task of maintaining *customer retention* and reducing the *churn rate*. *Churn rate* is the number of customers starting to unsubscribe or the ratio between the number of customers who quit compared to the total number of customers in the same period. So this will cut the company's profit. Moreover, according to research conducted by Adiningsih (2007) in [2] stated that there were 8.6% of the *churn* value in the Indonesian Telecommunications Industry in 2007. Other studies revealed that in 2013, the level of *churn rate* for telecommunications industry customers in Indonesia increased by 11%, research conducted by [3] with 11% is a number with a *churn* value which is equivalent to 2 times the churn value that occurs in the Telecommunications industry in Thailand and the Philippines.

Approach with a focus on *customer service*, or commonly referred to *customer-oriented* is one of the ways of the company that is used to increase customer retention. Furthermore, in *customer-oriented*, several approaches are oriented to *customer experiences* such as the approach to *customer experience* and the method by calculating the *customer satisfaction index* (CSI). *The customer experience* (CX) is the result of overall observations, perceptions, thoughts and tastes that arise through direct and indirect interactions and relationships between customers and service providers [4] while the *customer satisfaction index* is an index oriented to the level of *customer satisfaction* with the performance provided by the company.

In this study, the aim is to analyse the level of *customer satisfaction* with the services provided to *customer service* products that provide Internet service providers. Based on the CX variable, it will also identify what services are considered the most important and need management attention to be improved to maintain *customer satisfaction*. Besides, the purpose of this study is expected to be useful for subsequent researchers and for practitioners in the telecommunications industry in Indonesia who provide internet services.

Theoretical Framework

Customer Experience Management (CEM)

Customer Experience (CX) has a vital role in industries that focus on a particular service (*niche market*), such as the Telecommunications Industry. *Customer Experience* is the overall interaction between customers and products, companies, and parts of the company. CX causes a reaction. Experience (Experience), here is very personal to produce different levels based on rational, emotional, censorship, physical to spiritual. *Customer Experience* is an experience that is felt by customers as a result of interaction between these customers with a company during the period of their relationship said [5]

[6] *Customer Experience Management* (CEM) is a strategic process of managing the overall *customer experience* with a product or company. [5] CEM is a collection of methods used by companies to track, monitor, and manage every interaction between customers and companies in all stages of the *customer lifecycle*. Furthermore, [7] said with the rapid increase in the telecommunications industry, CEM is the only feasible way to regain control of *customer retention*.

Customer Satisfaction Index (CSI)

The Facing increasingly stringent telecommunications business development, every company must be able to see the importance of the *satisfaction* of each customer, one of them by conducting an assessment based on *Customer Satisfaction Index* / CSI. CSI is used to analyse the level of overall *customer satisfaction* by looking at the level of importance of the product/service attributes. This CSI value divided into five criteria based on a *Likert Scale* ranging from dissatisfied to very satisfied who interpret the values contained therein.

Customer satisfaction has recognised as a critical success factor in any company. The research claimed by [8] that said, "Satisfied customers tend to be less influenced by competitors, are less sensitive to price, and their loyalty lasts longer for their product choices". Recent developments in the telecommunications sector show that communications service providers / Customer Service Providers (CSP) are involved in various marketing and survey activities to find out the level of *satisfaction* of their customers. In general, as the results of previous studies stated by [9], "some internet service customers complained about the Speed of Service, the Right Solution provided by Customer Care, Speed of Obtaining Service, Management of Promises, Repeated Interruptions".

Importance Performance Analysis (IPA)

Importance Performance Analysis (IPA) is an analytical tool used to identify what variables and attributes need to be improved to improve services. The purpose of this analysis is to measure the *performance* and *importance* of variables seen from the perception of the customer. According to [10], this technique was first put forward by Martilla and James in 1977 in their article "*Importance-Performance Analysis*" published in the *Journal of Marketing*.

This analysis technique begins by asking for answers through questionnaires to respondents. The answers given by respondents will assess as an average level of performance and level of importance. Then both of them will be analysed on the IPA Matrix where the X-axis represents perception while the Y-axis represents the level of customer interest. So you will get four quadrants that have different meanings in each of the matrix quadrants.

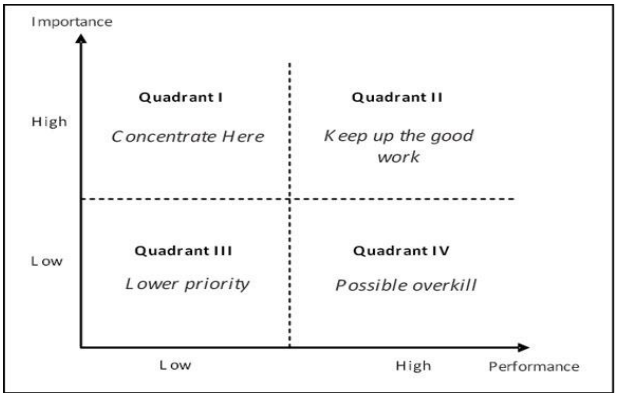

Figure 1 Quadrant Importance Performance Analysis

2. Research Method

2.1 Framework of Thinking

this study refers to the framework of thinking below :

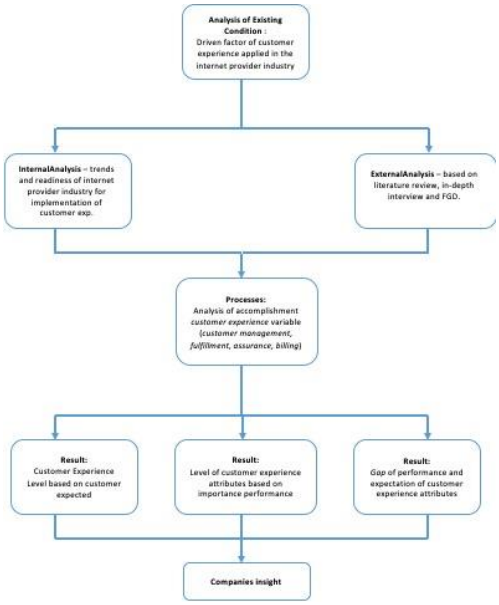

Figure 2 Framework of thinking

2.2 The Characteristic Of Respondent

The research questionnaire distributed to respondents through an application platform which divided into four sections, namely the respondent profile, the questionnaire performance measure, the questionnaire measure of expectation, and additional information. Before entering into the questionnaire performance and expectation measures, respondents must answer several questions that serve as screening issues. It is because this study uses a purposive random sampling technique where respondents are customers who subscribe to PT. XYZ products, and have had contact with Customer Service. The result, 244 respondents took the survey, and the characteristics made 100 respondents of the study. The study conducted in Makassar City.

Respondents are dominated by customers who live in residential / residential-type houses: 68.85% or 168 respondents; followed by c**u**stomers who live in apartments / rented houses as much as 23.77% or 58 respondents; and finally respondents who are in the type of Business / Office / Internet Cafe: 7.38% or as many as 18 Respondents. Other characters that have identified are the duration (years) of subscription, where 57 respondents subscribe for less than one year, or equal to 23.75. Subscription time between 1 - 2 years is 30% or 72 respondents, and the last is respondents who have subscribed for more than two years, which is 46.25% or 11 respondents.

Indicates that the average customer who is a research respondent is a subscriber who has subscribed for about to one two years with type respondent living in a residential/residential area

2.3 Validity And Reliability Test

The results of the validity test for each statement for the performance measure and the expectation measure for indiHome internet service providers based on customer experience variables are valid because each correlation value is positive with a probability value ≤ significance level of 0.05.

Table 1 Validity For Each Attribute Test

Kode Item	Korelasi Antar Item dalam Variabel	Status
CMCE1	0,621	Valid
CMCE2	0,688	Valid
CMCE3	0,865	Valid
CMCE4	0,881	Valid
FCE1	0,806	Valid
FCE2	0,804	Valid
FCE3	0,518	Valid
ACE1	0,716	Valid
ACE2	0,639	Valid
ACE3	0,497	Valid
BCE1	0,325	Valid
BCE2	0,381	Valid
BCE3	0,409	Valid
BCE4	0,378	Valid

While the reliability analysis is done using SPSS v 24, the results can be seen in the following table:

Table 2 Reliability Test

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CMCE1	39,50	51,947	,537	,865
CMCE2	40,00	51,474	,620	,861
CMCE3	39,75	47,671	,827	,848
CMCE4	39,75	46,829	,845	,846
FCE1	39,80	49,011	,754	,853
FCE2	39,95	49,313	,754	,853
FCE3	39,45	52,155	,395	,875
ACE1	40,10	52,305	,662	,860
ACE2	39,75	52,092	,563	,864
ACE3	39,60	54,884	,417	,870
BCE1	39,30	56,221	,207	,882
BCE2	38,70	56,642	,303	,875
BCE3	38,50	56,684	,341	,873
BCE4	39,00	56,000	,281	,877

Reliability Statistics

Cronbach's Alpha	N of Items
,873	14

Reliability test results from the questionnaire used in data collection based on customer experience (CX) variables regarding performance measures and expectations of the customer service performance of PT. XYZ is reliable. Because each dimension has a Cronbach's alpha value higher than 0.60.

3. Result and Discussion

3.1 Analysis Result Toward Variable Cx

The results that have made for fourteen point attributes of the four CX variables shown in the table below:

Table 3 Achievements for Each Customer Experience Attribute

Variables	Indicators	Codes	Performances	Expectations	Percentage (%)
Customer Management	***Preferred Access***	**CMCE1**	**3,1225**	**3,17**	**78,8**
	Customer Time Spent	**CMCE2**	**3,3125**	**4,37**	**60,64**
	Accuracy	**CMCE3**	**3,2875**	**4,35**	**60,46**
	First Handling	**CMCE4**	**3,3**	**4,35**	**60,69**
Fulfillment	***Fulfillment Response***	**FCE1**	**3,4625**	**4,24**	**65,33**
	Order Handling	**FCE2**	**3,1**	**4,3**	**57,67**
	Fitures	**FCE3**	**3,625**	**3,52**	**82,39**
Assurance	***Problem Handling***	**ACE1**	**3,1375**	**4,28**	**58,64**
	Service Problem Management	**ACE2**	**3,35**	**4,29**	**62,47**
	Service Quality Management	**ACE3**	**3,3625**	**4,36**	**61,7**
Billing	***Bill Payment & Receivable Mgmt.***	**BCE1**	**4,0875**	**4,21**	**77,67**
	Payment Methods	**BCE2**	**4,5375**	**4,2**	**86,43**
	Ease of Access	**BCE3**	**4,6875**	**4,32**	**86,81**
	Billing Accuracy	**BCE4**	**4,1625**	**4,34**	**76,73**

In the Table above, there is a gap between performance appraisal and expectations felt by customers. That it can be understood that: 1) Analysis at the level of *customer experience* ***PERFORMANCE*** of each attribute states that the quality ―BCE3 on the billing variable has a high point compared to other traits. It means that the customer is satisfied with the performance given in terms of ease of payment. Meanwhile, seen at the lowest point, there is an ―FCE2 attribute on the *Fulfillment variable*, this states that customers in the city of Makassar are not satisfied with the promise management provided by internet service providers to customers. 2) Analysis at the **EXPECTATION** level of the variable and the CX attribute, states that the ―CMCE2 quality on the *Customer Management* variable is the attribute that has the most significant point. So, it can interpret that the customer feels that the speed of service is the most important thing to prioritise compared to other attributes. 3) The level of comparison between *Performance* and *Expectations* of the CX variable on the ―BCE3 attribute of the *Billing variable*, is the attribute that has the smallest gap value, this means that the level of ease of payment felt by customers for PT. XYZ has handled according to what the customer wants.

3.2 Analysis Result Of Importance Performance Analysis (IPA)

3.2.1 Quadran Analysis (Cartesians Diagram)

Based on the quadrant analysis results, obtained attributes contained in quadrants I, II, III, and IV and their implications for the results of the study. The results of the characteristics listed in each quadrant can be seen in the Figure below.
With the explanation as follows:

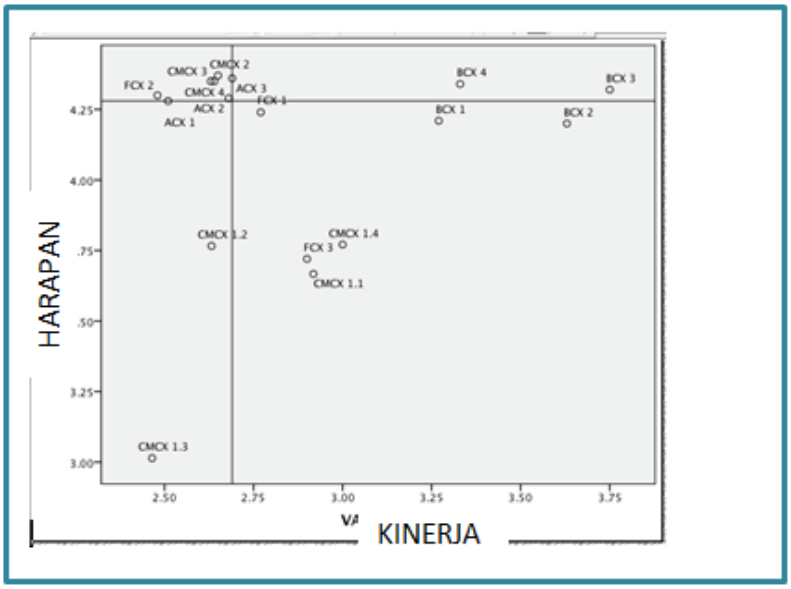

Figure 3 The Result of Cartesians Diagram

With the explanation as follows:

Quadrant I (*Top Priority*)

The attributes contained in this quadrant have a high level of importance, according to respondents, but their performance is still low. The implication is that the attributes listed in this quadrant must prioritise for improvement. The qualities contained in this quadrant are promise management, speed of resolution of interruptions, solutions can be resolved at the first request, providing appropriate handling solutions, speed of service, and handling satisfaction.

Quadrant II (*Maintain Performance*)

The attributes contained in this quadrant have a high level of importance, and their performance is also considered good by respondents. The qualities listed in this quadrant are the strengths or advantages of the company in the eyes of the respondent so that it needs to be maintained its performance, and these attributes and its quality is maintained. Characteristics contained in this quadrant are attributes derived from billing variables, namely ease of payment and accuracy of bills.

Quadrant III (*Low Priority*)

The attributes contained in this quadrant have a low level of importance, and their performance is also considered to be impoverished by the respondents. Performance improvement needs to

be done to shift these attributes to quadrant I. The attributes contained in this quadrant are attributes derived from customer management, fulfilment, and billing variables.

Quadrant IV (*Excessive*)

The attributes contained in this quadrant have a low level of importance according to respondents but have excellent performance so that they are considered excessive by the respondent. Improved performance on these attributes only causes a waste of resources. The qualities contained in this quadrant are the attributes that are in the customer management variable, namely media call centre 147 and email media.

3.3 Analysis Result Of Customer Satisfaction Index (CSI)

From the level of expectation and performance data for each attribute, the customer satisfaction index can calculate as the level of customer satisfaction with internet service providers. CSI analysis by calculating the value derived from the Performance value, Weight Factor of *Performance*, *Achievement* value to *Expectations*, and *Weight Score*. It can be seen in the following table:

Table 4 Calculation of Customer Satisfaction Index

Variables	***Indicators***	***Codes***	***Perform.***	***Weight Factor***	***Achievements***	***Weight Score***
Customer Management	*Plasa*	CMCX 1.1	2,918	5,962	3,667	21,862
	Call Center	CMCX 1.2	2,632	5,377	3,766	20,252
	Media-Email	CMCX 1.3	2,465	5,036	3,014	15,179
	Social Media (FB n twitter)	CMCX 1.4	3,000	6,129	3,771	23,114
	Cust. Time Spent	CMCX 2	2,650	5,414	4,37	23,660
	Accuracy	CMCX 3	2,630	5,373	4,35	23,374
	First Handling	CMCX 4	2,640	5,394	4,35	23,463
Fulfillment	*Fulfillment Response*	FCX 1	2,770	5,659	4,24	23,996
	Order Handling	FCX 2	2,480	5,067	4,3	21,788
	Fitures	FCX 3	2,900	5,925	3,72	22,041
Assurance	*Problem Handling*	ACX 1	2,510	5,128	4,28	21,949
	Serv. Problem Mgmt.	ACX 2	2,680	5,476	4,29	23,490
	Serv. Quality Mgmt.	ACX 3	2,690	5,496	4,36	23,962
Billing	*Bill Payment & Receivable*	BCX 1	3,270	6,681	4,21	28,127

	Mgmt.					
	Payment Methods	BCX 2	3,630	7,416	4,2	31,149
	Easy Of Access	BCX 3	3,750	7,662	4,32	33,098
	Billing Acuracy	BCX 4	3,330	6,804	4,34	29,527
			48,945		69,548	410,032
					CSI =	82,00634508

From the table above, by formulating the *Customer Satisfaction Index* (CSI) calculation, a value of 82% is obtained, which means 82% of these customers are delighted with the existing services. It achieved by referring to the value of the *Customer Satisfaction Index* (CSI) in the study.

4. Conclusion

Based on the results of research and discussion, the following conclusions can draw: From the reference study, there are fourteen customer experience attributes which then used as attributes that measured in terms of performance, interests and changes in the past one year of indiHome internet products in Makassar. From the results of the analysis using IPA analysis techniques, it can conclude that: Attributes that most prioritised for improvement include: Management of appointments, speed of settlement of interruptions, a satisfaction of handling, speed of service, right solutions at the first request, technicians who can solve problems at the first request. Attributes that need to be maintained are the accuracy of bills and ease of payment. Attributes that are deemed excessive are the channel for service (plasa, 147 and web), the level of use of service features, the level of a service speed of the chain as well as billing information and payment methods. There are 82% of customers who feel satisfied with the existing services. It based on an analysis of CSI.

Suggestion: In this study, calculations have been carried out to determine customer satisfaction on indiHome internet customers in Makassar, and this study is also the first study conducted in Makassar. This research is expected to have implications for subsequent researchers related to the focus of research on customer behaviour because of the development of technology, the increasing use of the internet as a tool in carrying out daily activities, on the other hand, consumers must also get satisfied with the services of the company.

Suggestion for Researcher

As a suggestion for subsequent research, that with technological advances and the development of customer behaviour patterns, there may be some attributes that can later be reduced, or can even increase the number of characteristics. The scope of research can also expand again. This research has been carried out by taking into account 14 attributes that represent four customer experience variables.

Suggestion for Company

For companies/practitioners in the internet service industry, to provide customer satisfaction, companies must be able to apply attributes that oriented to the customer

experience/customer experience. On the results of the study can be seen several characteristics that should be improved performance, one of them, namely: Management of promises because this concerns the integrity of the company oriented to customer satisfaction.

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