

DESIGN LISTENER'S NEEDS OF "SENJA MANJA" PROGRAM FROM ZORA RADIO USING INTEGRATION OF SERVICE QUALITY AND KANO MODEL

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Abstract

Zora Radio is one of affiliation of Telkom Education Foundation known as Yayasan Pendidikan Telkom (YPT) that is a service company runs the business activities in broadcasting field. The main profit of Zora Radio comes from advertisers on the broadcast program, especially in the prime time, so Zora Radio must maximize the program in prime time to increase the number of listeners so that it will bring revenue from advertisers. Senja Manja program is included in the prime-time program, for which Zora Radio plans to develop the program according to the expectation and needs of the listener. This study aims to support the needs analysis of program listeners in Senja Manja program by Zora Radio using service quality and Kano models to improve the service quality of programs later on. This study was conducted with by identification of 23 attributes of listener needs which used to determine the needs attribute should be prioritized in the development of service program Senja Manja. Based on the results of the service quality questionnaire processing, obtained 12 needs attributes are weak attribute and 11 attribute categorized as strong attributes. Furthermore, based on the classification of Kano Model, there are 8 needs attribute that must be prioritized and 5 attribute needs that need to be improved. Recommendations are formulated based on the data processing result containing needs attributes that are prioritized and improved as true customer needs.

Keywords: Zora, Need Analysis, Service Quality, Kano, Integration of Service Quality and Kano

1. Introduction

Zora Radio is a service company that run the business in the field of broadcasting. The areas of service performed is radio broadcasting with interesting programs as entertainment and information providers. Zora Radio was established in 2005, Zora Radio is one of the private radios that have been working on youth segment for about 2 years because previously, Zora Radio has changing their segment for 5 times. Based on the preliminary survey of youth segment radio to 200 respondents consisting of high school students and college students in Bandung with the age range between 16-23 years old in Figure 1.1 Zora Radio is ranked in second lowest as top of mind radio with the youth segment. Zora Radio is compared with 7 other radios that have the same segment in Bandung, which are Prambors, OZ, Ardan, Urban, 99ers, Hits, and Paramuda.

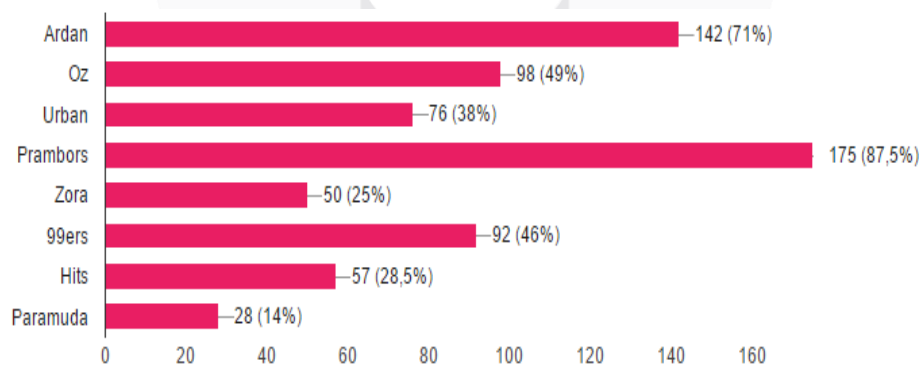


Figure 1.1 Percentage of radio brand awareness among youth

Based on interviews with Radio Director of Zora, Zora Radio revenue is expected to increase and meet the revenue targets but it has always been a difficult thing to achieve. Here is the amount of income from 2014 to 2016 shown in Figure 1.2.

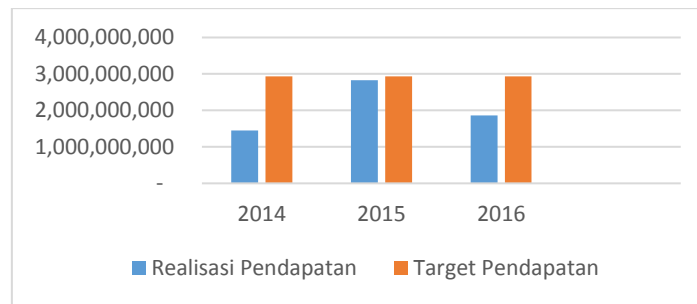


Figure 1.2 Revenue Target Year 2014-2016

The main profit of Zora Radio comes from advertisers on broadcast programs, especially on prime-time programs. Thus, Zora Radio must maximize the program in prime time to increase the number of listeners so that later it will bring income from advertisers. The Senja Manja program is nominated as the 3rd prime time program based on research conducted by the Persatuan Radio Siaran Swasta Nasional Indonesia (PRSSNI) West Java through Markplus. In order to make this program can give satisfaction and compete with competitor, it is necessary to analyze the needs of the program by paying attention to all unmet needs of the listener as the first step in increasing and improving the quality of Senja Manja program.

2. Literature Study

2.1 Kano Model

The Kano model is a method used to categorize attributes of a product or service so it could help to find the need for customer satisfaction^[1]. Noriaki Kano is a Japanese professor who propose Kano models as a tool used to understand customer needs and their impact on customer satisfaction. Kano categorizes the needs of different customers based on how good the need attribute could get customer satisfaction. Categorization of product needs attributes are divided into three categories of needs are as follows^[2]:

1. Must Be

Customers will feel dissatisfied if the performance of the particular attributes is low because the attribute must exist, if it does not exist, the customer will feel disappointed. Customer satisfaction will not increase much, although the performance of these attributes is high. This category is an mandatory criterion that must exist from the product as it should be. Customers ask for compliance for this category.

2. One- Dimensional or performance needs

In this category, customer satisfaction levels has a linear proportion with attribute performance, so high performance attributes will result in a high level of customer satisfaction, and vice versa. Customers expect compliance in this category.

3. Attractive

In this category if the attribute performance is improved then the level of customer satisfaction will increase significantly. But the decline in attribute performance will not have an impact on the rate of satisfaction. Customers are not demanding and do not expect for compliance of this category.

All three attributes are figured into a Kano Model diagram shown in the figure below, where the y axis is the customer satisfaction level while the x-axis is the functional capability of the product.

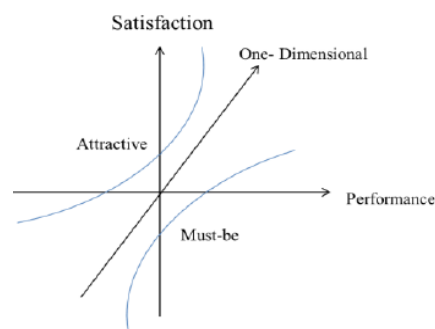


Figure 2.1 Kano Model

In addition, there are also three additional categories of Kano used by considering answers from customers who can bring up other categories. The secondary categories are Indifferent, Questionable, and Reverse^[3]:

1. Indifferent:

In this category, the presence or absence of attribute needs will not affect customer satisfaction. Attributes do not produce satisfaction and also do not generate dissatisfaction, customers do not pay attention to whether these needs are met or not.

2. Reverse

In this category customer satisfaction will decrease if attributes of these needs exist in the product. On the other hand, if the attribute is removed then the customer satisfaction will increase. Thus, attributes will produce dissatisfaction when it is met, and satisfaction when it is not met.

3. Questionable

This category will occur when the respondent's answer to the question from Functional Form and Dysfunctional Form is irrelevant so it raises doubts or misunderstandings toward the questions and responses will not accurate, so the needs can not be clearly defined.

In determining the attribute categories based on the Kano model there are three steps that can be used. First, classify the Kano Model attributes by combining the answers of dysfunctional questions with answers of functional questions. In order to determine Kano Category for each attribute using Blauth formula^[4] can be calculated with several conditions such as:

1. If the value of (one-Dimensional + attractive + must-be) > total value of (indifferent + reverse + questionable), then the chosen value is the maximum value from one-Dimensional, attractive, must-be.
2. If the value of (one-Dimensional + attractive + must-be) < total value of (indifferent + reverse + questionable), then the chosen value is the maximum value from indifferent, reverse, questionable.
3. If the value of (one-Dimensional + attractive + must-be) = total value of (indifferent, reverse dan questionable), then the chosen value is the maximum value from all categories which are one-Dimensional, attractive, must-be indifferent, reverse, and questionable.

After all three steps are done, the last step is to do improvement according to each category for every attribute whether it is Maintained, Prioritized, or Improved.

2.2 Service Quality

Service quality method is a method used to measure a service quality^[4]. The cause of service quality mismatch can be seen from the users and providers. Differences in thinking between the two sides that can make a gap. The capability of service quality in generating information, not only in the evaluation of the actual service but also the expectations of the customers, is able to recognize the areas of service quality and the strengths and weaknesses of an organization^[2].

The program of Senja Manja by Zora Radio is the object of this study with an assessment by the service quality method. Therefore, the service quality Dimensionons are adjusted to the object of this research so it is relevant to the scope of the problem and Dimensionon selection. Service quality was developed with the aim of help analyzing the source of quality problems and understanding ways of improving service quality. Which quantitatively measures quality in the form of a questionnaire containing service quality Dimensionons, namely Tangibles, Reliability, Responsiveness, Assurance, and Emphaty^[7].

The service quality method is built on the comparison of two main factors: customer perception of the actual service they receive with the ideal service that is expected by the customer. If the actual services are better than the customer expectation, then the service can be said as a good quality, whereas if the actual services are less than that customers expectation, then it is said as not qualified. Thus, this service quality method defines how far the difference between actual and expected service that customers receive^[5].

Adjustment of service quality Dimensionon with object of research make some Dimensionon is not used, because it is irrelevant and has been represented by Dimensionon which have been developed according to object of study. The chosen Dimensionon has a sense and function that is more relevant to the object of research.

The Dimensionons used in this study is a service quality Dimensionon that is suitable with the quality measurement of radio broadcasting service in Senja Manja program. The selected Dimensionons are Announcer Interaction, Information, Content Attractiveness, Access Deliverable, Responsiveness, and Technical Aspect. Explanation of definition of selected Dimensionon is explained in table 2.3.

Table 2.3 Chosen Dimension

No	Dimension	Definition
1.	Announcer Interaction	Ability and skill of announcer to interact with listener to inform something with an easy to understand language ^[8] .
2.	Information	Ability of service provider party to provide precise and accurate information so the customer can trust and believe in it ^[9] .
3.	Content Attractiveness	Ability of service provider to serve a program that can attract customer ^[10] .
4.	Access Deliverable	Ease of service provider to be accessed by the customer in delivering information or program ^[11] .
5.	Responsiveness	Willingness of service provider to immediately offer services needed by the customer ^[11] .
6.	Technical Aspect	Readyness of service provider to run its company, that includes tools availability and production technique from radio ^[12] .

Service quality is used to evaluate the quality of service by looking at customer importance and customer expectations. However, this CSI calculation can only be done if the customer has experienced the service. The calculation used to measure the Customer Satisfaction Index (CSI) can be obtained through the following formula.

Customer Satisfaction Index

$$= \text{Gap} \times \text{Importance} \dots \dots \dots 2.1$$

Gap

$$= \text{Performance} - \text{Expectations} \dots \dots \dots 2.2$$

The difference between the level of performance and the level of expectation of each need attribute will result in a gap as satisfaction or dissatisfaction of a quality^[6]. The value of customer satisfaction is influenced by the importance level of each attribute needs. The level of satisfaction that has been multiplied by the gap value is called the customer satisfaction index (CSI) which will be classified as customer satisfaction and dissatisfaction. A positive CSI will be a powerful attribute, while a negative CSI will be a weak attribute. The level of final customer satisfaction is called the customer satisfaction index (CSI) which will be classified into the satisfied and dissatisfied part of the customer for a service. A positive CSI will be a powerful attribute, while a negative CSI will be a weak attribute.

3. Analysis Data

3.1 Analysis of Data Processing from Service Quality’s Questionnaire

Based on the results of data processing on the service quality questionnaire, there are attributes that are categorized weak attributes and strong attributes. In data processing, there are 11 strong attributes and 12 weak attributes as follows:

Strong attributes are attributes that have a positive CSI. Thing that will be done on the strong attributes highly depends on the category of Kano owned by each attribute. Strong attributes that have an indifferent, must-be and one-dimensional Kano category will be maintained because the customer is satisfied with the attribute. Strong attributes categorized as Attractive will be prioritized because these attributes can be a differentiation for the Zora radio’s Senja Manja program. There are 11 strong attributes that have positive CSI that can be seen in Table 3.1.

Tabel 3.1 Strong Attribute

No.	Attribute's Code	Attribute	CSI	Result	Kano's Category	Recommendation
1	AI3	Announcer maintain good interaction with listeners	0.70	STRONG	A	Priority
2	AI4	Announcer are able to communicate something in a language that is easy to understand	1.27	STRONG	I	Maintained
3	AI5	A friendly announcer to the listener	1.70	STRONG	I	Maintained
4	RES3	Announcer respond to requests from listeners	0.63	STRONG	O	Maintained
5	INF1	The presence of interesting discussion material	0.45	STRONG	M	Maintained
6	CA1	Held the quizzes with giveaway	0.81	STRONG	O	Maintained
7	CA2	There are guest stars like famous artists or singers among youth	0.19	STRONG	M	Maintained
8	AD1	Availability of telephone contact	0.49	STRONG	I	Maintained
9	AD2	There is an official account in social media like twitter, facebook, Instagram	0.65	STRONG	A	Priority
10	AD3	Availability of platform for chatting like WhatsApp, Line, and SMS	1.27	STRONG	I	Maintained
11	TA2	Availability of live online in social media. (Example: Instagram live, bigo live)	0.79	STRONG	A	Priority

Weak attribute is an attribute that has negative CSI. Things that will be done on the weak attributes also depends on the category of Kano owned by each attribute. Weak attributes that have the must-be and one-dimensional Kano categories will be improved to meet audience satisfaction. Attractive weak attribute attributes will be prioritized because these attributes can differentiate the Zora Radio's Senja Manja program and weak attributes with the Indifferent Kano category will be maintained. The 12 weak attributes that have a negative CSI can be seen in Table 3.2.

Tabel 3.2 Weak Attribute

No.	Attribute's Code	Attribute	CSI	Result	Kano's Category	Recommendation
1	AI1	Announcer have vast knowledge	-0.29	WEAK	A	Priority
2	AI2	Announcer is creative in entertaining	-0.64	WEAK	A	Priority
3	INF2	The presence of educational discussion materials.	-0.59	WEAK	A	Priority
4	INF3	Info deliver accurately and based on National and International issues	-0.56	WEAK	A	Priority
5	INF4	Provide information on the latest trending songs (top hits / top chart)	-1.56	WEAK	O	Improved
6	CA3	Songs played are songs with genre like pop, jazz, and RnB	-1.08	WEAK	M	Improved
7	CA4	Material of discussion provided according to the needs of young people	-1.04	WEAK	M	Improved
8	RES1	Involve the listener in determining the song wanted to play.	-1.13	WEAK	I	Maintained
9	RES2	Involving the listener in determining the topic of discussion to be discussed	-1.18	WEAK	I	Maintained
10	TA1	Availability of online streaming	-1.06	WEAK	M	Improved
11	TA3	Availability of wide range of radio frequencies to the corners of Bandung	-0.38	WEAK	A	Priority
12	TA4	The quality of the broadcast is clear	-2.24	WEAK	M	Improved

3.2 Analysis of Data Processing from Kano Models's Questionnaire

Data processing questionnaire of Kano model begins by grouping the needs attribute into the Kano category based on the Kano Evaluation Table and Blauth Formula so that the categories of all attributes can be obtained. This classification is based on respondents' answers from functional statements and dysfunctional statements on each attribute. The needs attributes are grouped into six Kano categories, which are attractive (A), must-be (M), one dimensional (O), indifferent (I), reverse (R), and questionable (Q) as Table 3.3.

Table 3.3 Kano Model's Questionnaires Processing

No.	Attribute Code	A	O	M	Total A+O+M	I	Q	R	Total I+Q+R	Kano Category
1	AI1	35	17	31	83	22	0	5	27	A
2	AI2	34	22	21	77	22	3	8	33	A
3	AI3	36	18	22	76	31	3	0	34	A
4	AI4	10	15	22	47	56	2	5	63	I
5	AI5	20	18	16	54	47	5	4	56	I
6	RES3	18	37	12	67	28	5	10	43	O
7	INF1	12	18	41	71	27	6	6	39	M
8	INF2	35	21	13	69	30	2	9	41	A
9	INF3	38	19	21	78	29	0	3	32	A
10	INF4	11	43	22	76	23	9	2	34	O
11	CA1	18	33	17	68	30	0	12	42	O
12	CA2	12	19	48	79	26	5	0	31	M
13	CA3	21	14	39	74	21	8	7	36	M
14	CA4	25	19	31	75	23	4	8	35	M
15	AD1	22	11	11	44	60	2	4	66	I
16	AD2	32	21	14	67	25	8	10	43	A
17	AD3	11	20	10	41	65	0	4	69	I
18	RES1	11	15	20	46	59	0	5	64	I
19	RES2	15	16	20	51	53	3	3	59	I
20	TA1	17	27	41	85	18	0	7	25	M
21	TA2	29	21	20	70	25	6	9	40	A
22	TA3	31	20	21	72	29	2	7	38	A
23	TA4	17	13	45	75	31	4	0	35	M

In Table 3.3 it can be seen that there are 6 attributes of needs belonging to the must-be category ie INF1, CA2, CA3, CA4, TA1, TA4. 6 attributes included in the indifferent category are AI4, AI5, AD1, AD3, RES1, RES2. 3 attributes that fall into the one-dimensional category are RES3, INF4, CA1. And 8 attributes that are categorized as the attractive category are AI1, AI2, AI3, INF2, INF3, AD2, TA2, TA3.

3.3 Analysis of Service Quality and Kano Integration

Result of analysis from integration of *Service Quality* dan Kano obtained according to CSI and Kano category can be seen in Tabel 3.4.

Tabel 3.4 Integration Service Quality and Kano Model

No.	Attribute's Code	Kano Category	CSI	Weak or Strong	Reccomendation
1	AI1	A	-0.29	Weak	Prioritized
2	AI2	A	-0.64	Weak	Prioritized
3	AI3	A	0.70	Strong	Prioritized
4	AI4	I	1.27	Strong	Maintained
5	AI5	I	1.70	Strong	Maintained
6	RES3	O	0.63	Strong	Maintained
7	INF1	M	0.45	Strong	Maintained
8	INF2	A	-0.59	Weak	Prioritized
9	INF3	A	-0.59	Weak	Prioritized
10	INF4	O	-1.56	Weak	Improved
11	CA1	O	0.81	Strong	Maintained
12	CA2	M	0.19	Strong	Maintained
13	CA3	M	-1.08	Weak	Improved
14	CA4	M	-1.04	Weak	Improved
15	AD1	I	0.49	Strong	Maintained
16	AD2	A	0.65	Strong	Prioritized
17	AD3	I	1.27	Strong	Maintained
18	RES1	I	-1.13	Weak	Maintained
19	RES2	I	-1.18	Weak	Maintained
20	TA1	M	-1.06	Weak	Improved
21	TA2	A	0.79	Strong	Prioritized
22	TA3	A	-0.38	Weak	Prioritized
23	TA4	M	-2.24	Weak	Improved

True Customer Needs is derived from the integration of service quality and Kano Model, which are the need attributes that needs to be improved and prioritized. Thus, the total True Customer Needs total is 13 which consists of 8 priority attributes and 5 improved attributes. Here's an analysis of the 13 True Customer Needs attributes:

1. Provide information on the latest trending songs (top hits / top chart) attribute analysis (INF4)
2. Songs played are songs with genre like pop, jazz, and RnB attribute analysis (CA3)
3. Material of discussion provided according to the needs of young people attribute analysis (CA4)
4. Availability of online streaming attribute analysis (TA1)
5. The quality of the broadcast is clear attribute analysis (TA4)
6. Announcer maintain good interaction with listeners attribute analysis (AI3)
7. There is an official account in social media like twitter, facebook, Instagram attribute analysis (AD2)
8. Availability of live online in social media. (Example: Instagram live, bigo live) attribute analysis (TA2)
9. Availability of wide range of radio frequencies to the corners of Bandung attribute analysis (TA3)
10. Announcer have vast knowledge attribute analysis (AI1)
11. Announcer is creative in entertaining attribute analysis (AI2)
12. The presence of educational discussion materials attribute analysis (INF2)
13. Info deliver accurately and based on National and International issues attribute analysis (INF3)

4. Conclusion

Based on the research objective that has been stated previously, some conclusions that obtained are shown in the following points:

1. Based on the research that has been done, there are 23 listener' need attribute of Zora Radio's Senja Manja program which identified according to 6 service quality dimension that has been increase include Announcer Interaction, Information, Content Attractiveness, Access Deliverable, Responsiveness, dan Technical Aspect.
2. Based on the results of data processing from service quality questionnaire and Kano Model questionnaire, there are 11 strong attributes which means the listener's expectations of the attributes of Manja Senja program needs are met and 12 weak attributes which means the listener's expectation of these attributes is high.
3. Based on the results of the classification of the attributes of the listening needs of the program, Zora Radio's Senja Manja program using the Kano Model, there are 6 attributes of needs belong to the category of must-be, 3 attributes belong to one dimensional category, 6 attributes belong to the indifferent category, and 8 attributes are included in the attractive category.
4. Based on the results of data processing using the integration of service quality and Kano Model, obtained 13 needs attribute to be improved and prioritized as True Customer Needs, namely:
 - a. Provide information on the latest trending songs (top hits / top chart).
 - b. Songs played are songs with genre like pop, jazz, and RnB.
 - c. Material of discussion provided according to the needs of young people.
 - d. Availability of online streaming.
 - e. The quality of the broadcast is clear.
 - f. Maintain a good interaction to the listener.
 - g. There is an official account in social media like twitter, facebook, Instagram.
 - h. Availability of live online in social media. (Example: Instagram live, bigo live).
 - i. Availability of wide range of radio frequencies to the corners of Bandung.
 - j. Announcer have vast knowledge.
 - k. Announcer is creative in entertaining.
 - l. The presence of educational discussion materials.
 - m. Info deliver accurately and based on National and International issues.

Daftar Pustaka

- [1] Shen, X. X., Tan, K. C., & Xie, M. (2000). An Integrated Approach to Innovative Product Development Using Kano's Model and QFD
- [2] Tan, K.C. & Pawitra, T.A. (2001). 'Integrating SERVQUAL and Kano's Model into QFD for Service Excellence Development', *Managing Service Quality*, vol. 11 no. 6, pp 418-430.
- [3] Wang, T., & Ji, P. (2010). Understanding Customer Needs Through Quantitative Analysis of Kano's model. *International Journal of Quality & Reliability Management*, 173-184.
- [4] Widiawan, K., & Irianty. (2004). Pemetaan Preferensi Konsumen Supermarket Dengan Metode Kano Berdasarkan Dimensi *SERVQUAL*. *Jurnal Teknik Industri*, 37-46.
- [5] Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). A Multiple-Item Scale for Assessing Electronic Service Quality. *Journal of Service Research*, 1-21.
- Loiacono, E.T., Watson, R.T. and Goodhue, D.L. (2002), WebQual: A Measure of Website Quality, American Marketing Association Conference Proceedings.
- [6] Tjiptono, F., & Chandra, G. (2011). *Service, Quality, and Satisfaction* (3 ed.). Yogyakarta: Andi.
- [7] Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service Quality Delivery Through Web Sites: A Critical Review of Extant Knowledge. *Journal of the Academy of Marketing Science*, 362-375.
- [8] Nugrawidi, S. A., & Rusfian, E. Z. (2013). Pengaruh Dimensi-Dimensi Customer Engagement Terhadap Customer Relationship. *Journal of marketing*, Universitas Indonesia
- [9] Loiacono, E.T., Watson, R.T. and Goodhue, D.L. (2002), WebQual: A Measure of Website Quality, American Marketing Association Conference Proceedings.
- [10] O'Brien, T. V., Ostrowski, R. L., & Gordon, G. L. (2000). Service quality and customer loyalty in the commercial airline industry. *Journal of Travel Research*,
- [11] Santoso, Haryo (2006). Meningkatkan Kualitas Layanan Industri Jasa Melalui Pendekatan Integrasi Metoda *SERVQUAL SIG SIGMA* atau *SERVQUAL QFD*. Universitas Diponegoro, Semarang.
- [12] Padma, P., Chandrasek, & L. Prakash Sai. (2008). conceptual framework of service quality in healthcare Perspectives of Indian patients and their attendants.