

# Uncovering True Participant Needs in SMEs Training to Enhance Training Service Quality

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## ABSTRACT

It is recognized in various countries that Small and Medium-Sized Enterprises have played an essential role in the nation's economic development. However, despite the large number of Small and Medium-Sized Enterprises, only a few have succeeded in developing their businesses and moving upmarket. Various efforts from various parties, both government and private, have been made to help build the competencies needed to develop Small and Medium-Sized Enterprises businesses. One way this has been done is through training, such as that conducted by Rumah BUMN Bandung. However, the data shows that the movement provided has yet to have a significant positive impact on the development of Small and Medium-Sized Enterprises businesses. Therefore, a study was conducted to identify the needs of Small and Medium-Sized Enterprises for effective training by applying the Kano Model and Training Service Quality. Data was collected by surveying Small and Medium-Sized Enterprises who attended training at Rumah BUMN Bandung. Of the 130 respondents who participated in the assessment of 15 attributes of needs, it was found that there are 11 needs referred to as "True Participant Needs" that are currently not fulfilled. Among these needs, ten attributes require improvement, while the remaining require further development. These findings are expected to overcome the gap in fulfilling Small and Medium-Sized Enterprise's needs related to effective training.

### Keywords:

True Participant Needs;  
Training Service Quality;  
Model Kano; Small and  
Medium-Sized Enterprises;  
Training Dimensions.

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## 1. INTRODUCTION

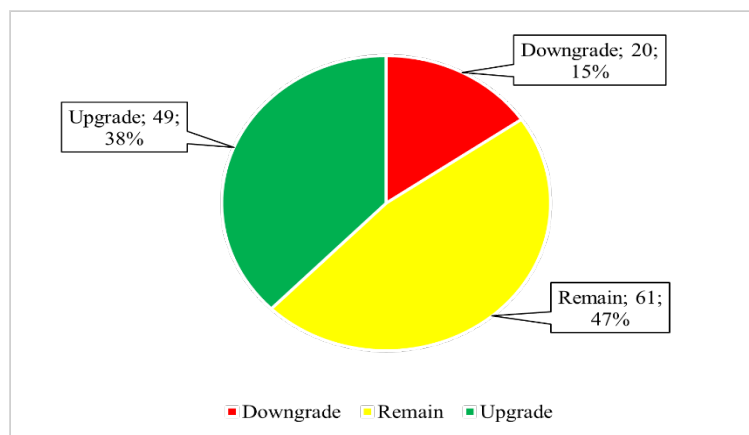
Small and Medium-Sized Enterprises (SMEs) are an economic pillar in various countries because this sector contributes a significant Gross Domestic Product (GDP) contribution to the economy [1]. In Indonesia, SMEs play an essential role in economic development and the absorption of many laborers [2]. According to KemenKopUKM [3], the contribution of the SMEs sector to GDP reached 60.51% in 2019. In addition, the labor absorption of SMEs is 119.6 million people, equivalent to 96.92% of the total workforce in Indonesia. The remaining 3.08% are in large businesses. In practice, even though SMEs have small organizational sizes, they possess a high ability to adapt to changes, whether they are

opportunities or threats [4], [5], [6], [7]. This adaptability will be optimized when supported by the government and other stakeholders who are concerned about SMEs [8].

SMEs generally suffer from budget and are less sure of the expected returns on investment [9]. Thus, the need for a partnerships. Partnerships are not only to connect parties to collaborate but also to overcome gaps in knowledge, capabilities, and competencies [10]. The government has established Rumah BUMN since 2016 to facilitate partnerships for SMEs in Indonesia. Rumah BUMN (RB) is a place designed to facilitate State-Owned Enterprise (SOE) collaboration to form a digital economy ecosystem in SMEs through coaching programs provided to increase the capacity and capability of SMEs. One of them is the Rumah BUMN Bank BRI Bandung in West Java. Currently, there are more than six thousand registered SMEs under its guidance. The most dominant business category is the food and beverage category, followed by the fashion category, and crafts. Furthermore, based on the type of business, there are over five thousand micro-businesses, with the remainder being small and medium businesses.

In conducting coaching programs, RB Bandung provides three main types of programs. It is competency access, partnership access, and marketing access. Competence access is a coaching program that focuses on increasing the ability and skills of SMEs in running their business through the training program provided. Partnership access is a coaching program that supports business networks and business capital from SOE/People’s Business Credit/other programs. Marketing access is a coaching program focusing on marketing activities by RB Bandung to expand marketing access for SMEs under its guidance.

In assessing the increase in scale and capability of the SMEs under its guidance, RB Bandung has a portal called Skoring UMKM Naik Kelas. Skoring UMKM will be carried out by the fostered SMEs once every six months. This aims to determine whether the coaching program organized by RB Bandung, especially on access to competencies, can impact increasing SMEs' business development. As can be seen in Figure 1 below, which indicates the Skoring UMKM data for the period from June 2022 to June 2023.



**Figure 1 - Data Results of Skoring UMKM Naik Kelas 2022 - 2023**

Out of a total of 6,246 SMEs being mentored, 130 of them have undergone Skoring UMKM assessments two times or more. Based on the Skoring UMKM results, only 38% of SMEs have shown an improvement in business maturity. This figure falls short of the target, which is set at 50%.

To identify the reasons for not achieving the SME improvement target, in-depth interviews were conducted with SMEs who have completed Skoring UMKM and have participated in training programs. These in-depth interviews were aimed at exploring the shortcomings of the training program or any complaints experienced by the mentored SMEs during their participation in the training program. The interviewees involved in the in-depth interview are SMEs who have participated in the training program two times or more. The selection of these SMEs was done to obtain accurate information. Table 1 provides a summary of complaints from the in-depth interviews.

**Table 1 - Trainee Complaints Data of RB Bandung**

No.	Complaints
1	The training content does not match what is currently needed.
2	There is no mentoring after training.

- 3 Less interactive class atmosphere.
- 4 The training content provided is general.
- 5 Poor management of time.
- 6 It needs more facilities and infrastructure.
- 7 There are no competent instructors present.
- 8 There is no monitoring of the application of training content.

Table 1 shows the results of in-depth interviews with the fostered SMEs about the training programs they have attended. To obtain accurate information, in-depth interviews were conducted with eight fostered SMEs who had participated in the training and filled out the Skoring UMKM. From the results of these in-depth interviews, various complaints indicate a gap between reality and expectations in the training program that has been provided. Thus, this research was conducted to know what attributes cause trainee satisfaction that has not been fulfilled. Service Quality is a method used to evaluate the gap between perceived and expected services, which was first popularised by Parasuraman, Berry, and Zeithaml in 1988 [11].

Service Quality has been used in various industries, such as banks, hospitals, restaurants, movie theatres, education, and training [12]. The research results from Abbas [13] state that measures university service quality with the dimensions of teachers' profile, curriculum, infrastructure and facilities, management and support staff, employment quality, safety and security, and students' skills development. The research results from Khair [14] state that measures the factors contributing to improving training quality with the dimensions of training objectives, training content, training techniques, training time management, trainer's personality characteristics, training amenities, and training feedback.

This research was conducted by adapting the dimensions of Service Quality popularised by [11] into Training Service Quality dimensions obtained from the Voice of Participants and previous research. Training Service Quality will be used to measure the perceptions and desires of trainees who will be integrated with the Kano Model. Using the Kano Model aims to measure how well the service can satisfy customers. The results of this research are expected to be able to get True Participant Needs that can benefit related parties in organizing SME training programs.

## 2. METHOD

### 2.1 Framework for Integration of Training Service Quality and Kano Model

Integrating Training Service Quality and the Kano Model aims to overcome the relationship between performance attributes and customer satisfaction, which is considered linear [15]. Traditional linear models assume that as performance attributes improve, customer satisfaction linearly increases. However, the Kano Model introduces the idea that certain attributes may be basic expectations, and their improvement doesn't necessarily lead to increased satisfaction but rather prevents dissatisfaction. Figure 2 is a framework that illustrates the integration of Training Service Quality and the Kano Model concerning research [15].

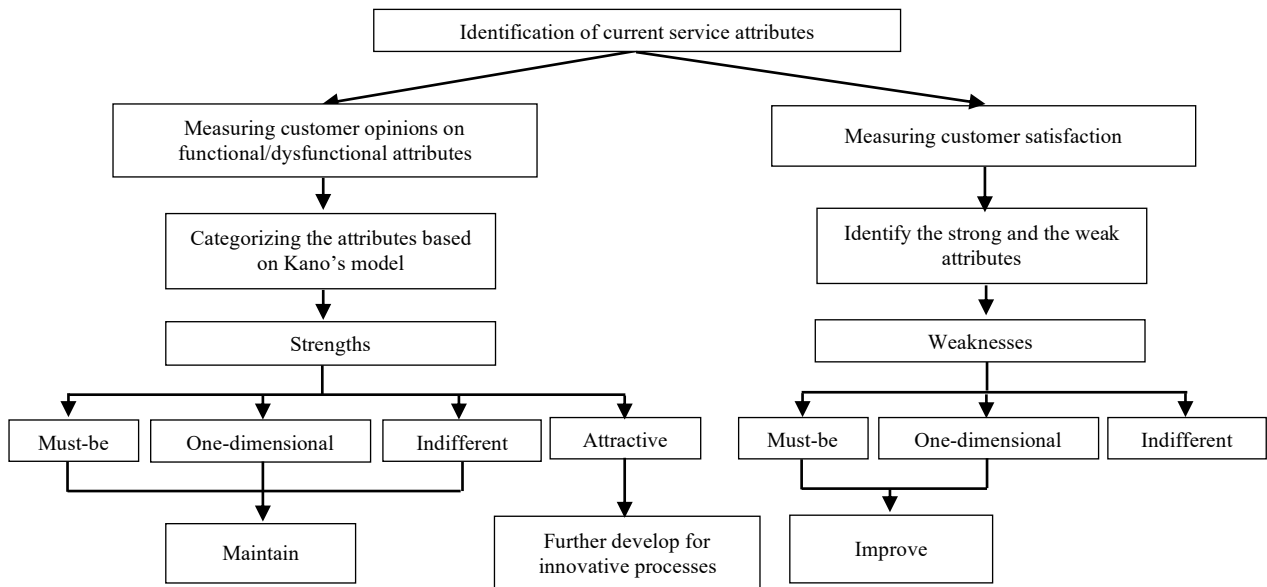


Figure 2 - Framework for Integration of Training Service Quality and Kano Model

The initial stage is to identify the attributes of needs through in-depth interviews and literature studies. The next step includes collecting customer satisfaction data and prioritizing each attribute's level of importance through the Training Service Quality and the Kano Model questionnaire. The Training Service Quality questionnaire aims to generate weak attributes and strong attributes. The Kano Model questionnaire aims to categorize the need attributes into Kano Model categories, that is, Must-be (M), One-dimensional (O), Attractive (A), Indifferent (I), Reverse (R), and Questionable (Q).

Must-be is a category that will decrease customer satisfaction if not fulfilled. One-dimensional is a category that will decrease customer satisfaction if not fulfilled and increase customer satisfaction if fulfilled. Attractive is a category that will provide customer satisfaction if fulfilled and has no effect on customer satisfaction if not fulfilled. Indifferent is a category that is fulfilled or not, it will not affect customer satisfaction. The reverse is the opposite of the one-dimensional category. Questionable is a category that occurs when the customer's answer contradicts the Kano statement.

Strong attributes with must-be, one-dimensional, and indifferent categories will be maintained, and strong attributes with attractive categories will be developed. Meanwhile, weak attributes with must-be, one-dimensional, and attractive categories will be improved, and weak attributes with indifferent categories will be ignored. Attributes with developed and improved action analysis results will be summarised into True Participant Needs that will be used as material for improvement recommendations.

**2.2 Research Design**

Data collection in this study was carried out through two types of data: primary and secondary data. Primary data in this research is divided into qualitative and quantitative data. Qualitative data is in the form of data from in-depth interviews with fostered SMEs regarding perceived complaints and data from interviews with RB Bandung coordinators regarding existing conditions. Meanwhile, quantitative data is in the form of data from filling out the Training Service Quality and the Kano Model questionnaire. As for secondary data in this study, that is internal data of RB Bandung, data of Skoring UMKM, and relevant literature studies.

In this study, two types of questionnaires were designed based on the attributes needed by SMEs using a Likert scale as a measuring tool. The two types of questionnaires are the Training Service Quality and the Kano Model questionnaire. The Training Service Quality questionnaire has three measurement scales: the level of expectations, the level of reality, and the level of importance. The scale used for measuring Training Service Quality is from 1 to 4 with a description as in Table 2.

**Table 2 – Training Service Quality Measurement Scale**

Scale	Expectation Level	Reality Level	Importance Level
1	Very Unneeded	Very Unsuitable	Very Unnecessary
2	Unneeded	Unsuitable	Unnecessary
3	Needed	Suitable	Necessary
4	Very Needed	Very Suitable	Very Necessary

The Kano Model questionnaire categorizes the requirement attributes into six Kano categories using two levels of measurement scales, namely the functional and the dysfunctional level. The scale used for the Kano Model measurement is a Likert scale from 1 to 5, with the description in Table 3.

**Table 3 - Kano Model Measurement Scale**

Scale	Functional – Dysfunctional Level
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

This study uses a non-probability sampling approach with purposive sampling. This approach was chosen because not all individuals in the population have an equal opportunity to become respondents. Using purposive sampling techniques in data collection, samples are taken selectively according to the criteria determined by the researcher [16]. The sample size in this study was obtained by multiplying the number of questions by a value of five to ten [17]. There are 15 need attributes in this study, as shown in Table 5. Then, the total sample size required is around 75 to 150 respondents. The

total respondents in this study were 130 respondents. The questionnaire distribution was carried out by distributing questionnaires online and onsite.

**Table 4 - Customer Satisfaction Value (CSV)**

$$\text{GAP} = \text{Reality Level} - \text{Expectation Level}$$

$$\text{CSV} = \text{GAP} \times \text{Importance Level}$$

At the initial data processing stage, Customer Satisfaction Value (CSV) is calculated based on the Training Service Quality questionnaire results. The level of reality will reduce the results of measuring the level of expectation to get the GAP. The result of the GAP will be multiplied by the level of importance to get CSV. Positive CSV is categorized into strong attributes, and negative CSV is categorized into weak attributes. In the Kano Model questionnaire, data processing is carried out by grouping the results of functional and dysfunctional level measurements using Blauth's Formula as in Figure 3, which refers to research [18].

If you can... , how do you feel? (Functional question)		1. I like it that way. 2. I expect it that way. 3. I am neutral. 4. I can accept it to be that way. 5. I dislike it that way.						
If you cannot... , how do you feel? (Dysfunctional question)		1. I like it that way. 2. I expect it that way. 3. I am neutral/ 4. I can accept it to be that way. 5. I dislike it that way.						
<b>Customer Requirements</b>		<b>Answer to dysfunctional question</b>						
		Like	Must-be	Neutral	Live with	Dislike		
<b>Answer to functional question</b>		Like	Q	A	A	A	O	
		Must-be	R	I	I	I	M	
		Neutral	R	I	I	I	M	
		Live with	R	I	I	I	M	
		Dislike	R	R	R	R	Q	
<b>C.R.</b>	<b>A</b>	<b>M</b>	<b>O</b>	<b>R</b>	<b>Q</b>	<b>I</b>	<b>Total</b>	<b>Category</b>
1.	1						1	A
2.								

**Figure 3 – Blauth’s Formula**

Figure 3 is an explanation of the use of Blauth’s Formula. The results of the functional and dysfunctional questionnaires will be classified using the Blauth Formula table to obtain attributes with categories Must-be, One-dimensional, Attractive, Indifferent, Questionable, or Reverse categories. Furthermore, from the results of the Kano category, the Customer Satisfaction Coefficient (CSC) will be calculated. Customer Satisfaction Coefficient (CSC) calculates how much customer satisfaction can be improved by providing product or service characteristics according to customer needs [19]. Table 5 calculates CSC, which refers to research [19].

**Table 5 - Customer Satisfaction Coefficient (CSC)**

<b>Satisfaction Level</b>	<b>Dissatisfaction Level</b>
$= \frac{A + O}{A + O + M + I}$	$= \frac{O + M}{(A + O + M + I)X(-1)}$

The range of satisfaction level values is from 0 to 1. If the resulting satisfaction level is close to 1, it shows that the resulting influence is getting stronger. Meanwhile, if the level of satisfaction is close to 0, it shows that the influence produced is weakening. The opposite also applies to the value of the level of dissatisfaction from 0 to -1.

### 3. RESULT AND DISCUSSION

#### 3.1 Identification of Need Attributes

Table 6 shows the results of identifying the attributes of the needs of the RB Bandung training program. From the results of this identification, the need attributes of each dimension of Training Service Quality are obtained.

**Table 6 - Need Attributes Based on Training Service Quality Dimensions**

No	Dimension	Need Attributes	Source
1	<i>Training Content</i>	The training contents are in line with the needs of SMEs.	[20]
		The training contents provided are specific.	VoC
		The training contents provided are easy to understand.	[13]
2	<i>Post Training Treatment</i>	Provide monitoring of the application of training contents.	[21]
		Provide consultation services.	[22]
		Provide mentoring after the training program.	[22]
3	<i>Instructor</i>	Instructors have competence in their field.	[13]
		Instructors can teach.	[13]
		The instructor creates an interactive environment in the classroom.	[13]
4	<i>Reliability</i>	The content of the training is in line with the established theme.	[23]
		The training is conducted according to the planned duration.	[23]
		The training is conducted according to the planned schedule.	[23]
5	<i>Training Amenities</i>	Availability of supportive equipment for training.	[13]
		Training equipment can operate.	[22]
		The training room used is adequate.	[24]

The training program's need attributes were identified through in-depth interviews and previous research. In-depth interviews will produce the Voice of Participants, which are the expectations of the fostered MSMEs. The need attributes obtained will be grouped into dimensions of training service quality using affinity diagrams. The identification results obtained fifteen attributes of needs, which were grouped into five dimensions of training service quality.

#### 3.2 Training Service Quality Data Processing

Table 7 shows the results of data processing the Training Service Quality questionnaire. The results of this processing will produce attributes with strong and weak categories.

**Table 7 - Data Processing Results of Training Service Quality Questionnaire**

No	Attribute Code	Reality Level	Expectation Level	GAP	Importance Level	CSV	Attribute Type
1	TC1	3,600	3,777	-0,177	3,785	-0,670	Weak
2	TC2	3,708	3,631	0,077	3,669	0,282	Strong
3	TC3	3,746	3,808	-0,062	3,762	-0,231	Weak
4	PT1	3,685	3,715	-0,031	3,715	-0,114	Weak
5	PT2	3,623	3,777	-0,154	3,685	-0,567	Weak
6	PT3	3,662	3,738	-0,077	3,731	-0,287	Weak
7	IT1	3,669	3,815	-0,146	3,754	-0,549	Weak
8	IT2	3,731	3,792	-0,062	3,777	-0,232	Weak
9	IT3	3,646	3,785	-0,138	3,723	-0,516	Weak
10	RB1	3,608	3,731	-0,123	3,738	-0,460	Weak
11	RB2	3,754	3,554	0,200	3,562	0,712	Strong
12	RB3	3,723	3,600	0,123	3,631	0,447	Strong
13	TA1	3,723	3,746	-0,023	3,715	-0,086	Weak
14	TA2	3,785	3,646	0,138	3,731	0,517	Strong

15	TA3	3,777	3,600	0,177	3,731	0,660	Strong
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The data processing results in Table 7 show that of the 15 need attributes, there are ten need attributes with weak categories and five with strong categories. Strong attributes indicate that the attribute has fulfilled customer satisfaction. Meanwhile, weak attributes suggest that the attribute still needs to satisfy customers. In addition, based on the results of the CSV calculation, the need attribute with the lowest value is that the training contents are in line with the requirements of SMEs (TC1), and the need attribute with the highest value is that the training is conducted according to the planned duration (RB2).

### 3.3 Kano Model Data Processing

Table 8 shows the results of data processing the Kano Model questionnaire. The results of this processing will be known as the Kano category, along with the value of the level of satisfaction and dissatisfaction of each need attribute.

**Table 8 - Data Processing Results of Kano Model Questionnaire**

No	Attributes	A	O	M	I	Kano Category	Satisfaction Level	Dissatisfaction Level
1	TC1	12	45	41	25	O	0,463	-0,699
2	TC2	39	23	38	26	A	0,492	-0,484
3	TC3	20	48	38	22	O	0,531	-0,672
4	PT1	18	43	41	25	O	0,480	-0,661
5	PT2	20	44	39	26	O	0,496	-0,643
6	PT3	22	42	37	27	O	0,500	-0,617
7	IT1	15	36	51	25	M	0,402	-0,685
8	IT2	19	34	55	21	M	0,411	-0,690
9	IT3	21	44	41	22	O	0,508	-0,664
10	RB1	17	46	42	23	O	0,492	-0,688
11	RB2	20	34	46	28	M	0,422	-0,625
12	RB3	18	36	49	24	M	0,425	-0,669
13	TA1	20	47	40	20	O	0,528	-0,685
14	TA2	20	32	54	21	M	0,409	-0,677
15	TA3	15	36	52	25	M	0,398	-0,688

The Kano Model processing results show that eight attributes include the one-dimensional category, six attributes that have the must-be category, and one attribute that consists of the attractive category. Meanwhile, from the CSC calculation results, the value with the highest level of satisfaction is TC3, with a value of 0.531, and the value with the highest level of dissatisfaction is TC1, with a value of -0.699.

### 3.4 Training Service Quality and Kano Model Integration Data Processing

After obtaining the data processing results from the Training Service Quality and the Kano Model, the next step is to integrate the results of processing the Training Service Quality and the Kano Model to get attributes that need to be developed, improved, maintained, and ignored. The results of the integration of Training Service Quality and the Kano Model are shown in Table 9.

**Table 9 - Data Processing Results of Training Service Quality and Kano Model Integration**

No	Attribute Code	CSV	Attribute Type	Kano Category	Recommendation
1	TC1	-0,670	Weak	<i>One-dimensional</i>	Improved
2	TC2	0,282	Strong	<i>Attractive</i>	Developed
3	TC3	-0,231	Weak	<i>One-dimensional</i>	Improved
4	PT1	-0,114	Weak	<i>One-dimensional</i>	Improved
5	PT2	-0,567	Weak	<i>One-dimensional</i>	Improved
6	PT3	-0,287	Weak	<i>One-dimensional</i>	Improved

7	IT1	-0,549	Weak	<i>Must-be</i>	Improved
8	IT2	-0,232	Weak	<i>Must-be</i>	Improved
9	IT3	-0,516	Weak	<i>One-dimensional</i>	Improved
10	RB1	-0,460	Weak	<i>One-dimensional</i>	Improved
11	RB2	0,712	Strong	<i>Must-be</i>	Maintain
12	RB3	0,447	Strong	<i>Must-be</i>	Maintain
13	TA1	-0,086	Weak	<i>One-dimensional</i>	Improved
14	TA2	0,517	Strong	<i>Must-be</i>	Maintain
15	TA3	0,660	Strong	<i>Must-be</i>	Maintain

In the results of the integration of Training Service Quality and the Kano model, it is known that ten attributes need to be improved, four must be maintained, and one must be developed. Attributes with recommendations for improvement and development become True Participant Needs suggestions for improving the quality of training program services at RB Bandung.

### 3.5 True Participant Needs

Table 10 shows the results of True Participant Needs, which are equipped with the types of attributes, Kano categories, and recommendations needed to overcome problems in the SME training program.

**Table 10 – Results of True Participant Needs**

No	Attribute Code	Need Attributes	Attribute Type	Kano Category	Recommendation
1	TC1	The training contents are in line with the needs of SMEs.	Weak	O	Improved
2	TC2	The training contents provided are specific.	Strong	A	Developed
3	TC3	The training contents provided are easy to understand.	Weak	O	Improved
4	PT1	Provide monitoring of the application of training contents.	Weak	O	Improved
5	PT2	Provide consultation services.	Weak	O	Improved
6	PT3	Provide mentoring after the training program.	Weak	O	Improved
7	IT1	Instructors have competence in their field.	Weak	M	Improved
8	IT2	Instructors can teach.	Weak	M	Improved
9	IT3	The instructor creates an interactive environment in the classroom.	Weak	O	Improved
10	RB1	The content of the training is in line with the established theme.	Weak	O	Improved
11	TA1	Availability of supportive equipment for training.	Weak	O	Improved

Out of the fifteen attributes of needs, eleven attributes have emerged as True Participant Needs. These eleven attributes include training contents are in line with the needs of SMEs (TC1), the training contents provided are specific (TC2), the training contents offered are easy to understand (TC3), provide monitoring of the application of training contents (PT1), provide consultation services (PT2), provide mentoring after the training program (PT3), instructors have competence in their fields (IT1), instructors can teach (IT2), the instructors create an interactive environment in the classroom (IT3), the content of the training is in line with the established theme (RB1), and availability of supporting equipment for training (TA1).

The results of this study show that each need attribute has a different effect when implemented in a training program, such as need attributes with one-dimensional categories. Attributes with this category need to be considered in implementing training programs. This is because not fulfilling this attribute can cause customer satisfaction to decrease.



However, attributes in this category can also be a strategy for training institutions to increase customer satisfaction. This study's attributes with one-dimensional categories are TC1, TC3, PT1, PT2, PT3, IT3, RB1, and TA1.

Need attributes with the must-be category are primary need attributes that must be available at a training institution. Therefore, attributes with this category must be available to support implementing the training program to run optimally. In this study, the attributes with the must-be category are IT1 and IT2.

Need attributes with the attractive category are an advantage in organizing training programs. This is because the attribute only affects customer satisfaction if fulfilled. With this need attribute, trainees will get excessive satisfaction from the services provided. In this study, the attribute with the attractive category is TC2.

#### 4. CONCLUSION

As identified in this study, one of the causes of ineffective SME training is the gap between training needs and training services received. The approach to address this was to explore the attributes of SMEs' training needs, which had not previously been studied. Based on the study results, the need attributes that need improvement are related to training content and delivery of training content, which are also associated with instructor skills. This can be understood because the main purpose of training for SMEs is to increase knowledge or skills that can be applied in their business. In addition, post-training support in consulting, monitoring, and mentoring services is also desired to continue the training process. The limited time in training has led to the need for help that will guide them in implementing what they have learned. Among SMEs that have participated in the training, especially those facing complex problems, there is a need for more specific training, and they often expect a place to share experiences related to issues often faced by fellow business people. The approach used in this research, mainly through applying the Service Quality for Training model, requires extensive information gathering to formulate accurate training need attributes. By identifying 15 attributes from the Voice of Participants and relevant literature, the research was able to represent the various attributes of training needs that are considered important. The Service Quality for Training model can be tested in other training institutions to strengthen the results.

In addition to testing in other training institutions, the results of this study can also provide a basis for operational service improvement if followed by the application of the Quality Function Deployment, which is also a follow-up material of this study.

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