

MEASURING SERVICE QUALITY IN WARUNG PASTA BANDUNG USING SERVQUAL METHOD

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Abstract- Since 2010, the number of restaurants in Bandung has been growing. This makes the competition among restaurants potentially get more intense. Providing a good service to customers is very important for a restaurant that is in a very tight competition. Warung Pasta is one of the restaurants in Bandung that is in such competition. If Warung Pasta Bandung wants to succeed, it is necessary to provide quality service. The purpose of this research is to measure the service quality of Warung Pasta Bandung. One of the methods to measure service quality is the SERVQUAL method. There are five dimensions in SERVQUAL. With SERVQUAL method, the service quality of Warung Pasta Bandung is measured by calculating the difference between customers' expectations and their perception (i.e. customer gap). By measuring the customer gap, it is possible to know the extent to which the customers are satisfied with the service provided by Warung Pasta Bandung. When the expectation score is higher than the perception score (i.e. negative gap), it means that the perceived service does not meet the customers' expectations. But when the perception is higher than the expectation (i.e. positive gap), it means that the perceived service exceeds customers' expectation. This research used survey to collect the data with the sample size of 280 respondents. Author also did pretest to 30 respondents in this research. Author used SPSS software to test the validity, reliability and also customer gap. The result shows that the gap for all dimensions is negative, indicating that the service at Warung Pasta Bandung does not seem to meet customers' expectations.

Introduction

Culinary business has been growing very fast in Bandung, at least for the last 3 years since 2010. Based on LPJK Kota Bandung, there were 609 restaurants in Bandung in 2012, spread all over the town in every side. The high number of restaurants potentially makes high competition. The restaurant industry has witnessed diversified changes and fierce competition overtime (Malik et al, 2013). With the high level of competition, there are factors that restaurants need to give attention to, one of which is service quality. Restaurants used to be more focused on food quality and taste. But now, they have to pay equal attention to other factors such as serving, atmosphere, interior decorations, tangibles, and location (Malik et al, 2013).

Table 1 Number of Restaurant in Bandung (LKJ Wali Kota Bandung)

Year	Number of Restaurants
2010	461
2011	512
2012	609

Literature Review

Service

According to Turban et al. (2002), "Customer service is a series of activities designed to enhance the level of customer satisfaction – that is, the feeling that a product or service has met the customer expectation."

From Turban's definition about service, it is important to providing good service in order to satisfy customer. If the customer's requirements are fulfilled, he/she gets satisfied and delighted.

Quality

Armand Feigenbaum define quality as a customer determination based upon a customer's actual experience with a product or service, measured against his or her requirements -stated or unstated, conscious or merely sensed, technically operational or entirely subjective -and always representing a moving target in a competitive market.

Service Quality

Service quality is a measure of how well the service level delivered matches customer expectations (Lewis and Booms, 1983).

A service can be considered:

- Excellent, when perceptions are higher than expectations;
- Good, when perceptions are equal to expectations;
- Bad, when perceptions are lower than expectations.

A negative gap indicates that received service did not met customers' expectations. On the contrary, a positive gap indicates that customers perceived that service delivery exceeded their expectations (Markovic, 2010).

There were 10 quality dimensions in SERVQUAL, but later reviewed by the same authors in 1988 and reduced into 5 dimensions, which are reliability, assurance, tangible, empathy and responsiveness.

1. Reliability

Ability to perform the promised service dependably and accurately. It means that the performance has to be exactly like what promised before. It also means that the firm performs the service right the first time.

2. Assurance

Knowledge and courtesy of employees and their ability to inspire trust and confidence. How the employee acts to customers would affect their trust. If the employee has the knowledge and being nice and polite, it would build customer trust and confidence.

3. Tangible

Appearance of physical facilities, equipment, personnel and communication materials. Tangible is about something that physically can be touched. This dimension has to be considered because customer can directly see and touch it. By looking on physical appearance, a person can decide whether to come or not.

4. Empathy

Caring, individualized attention the firm provides its customers. It means that a company understands what customer's needs. It involves providing individualized attention to customers and learning specific customer's requirements.

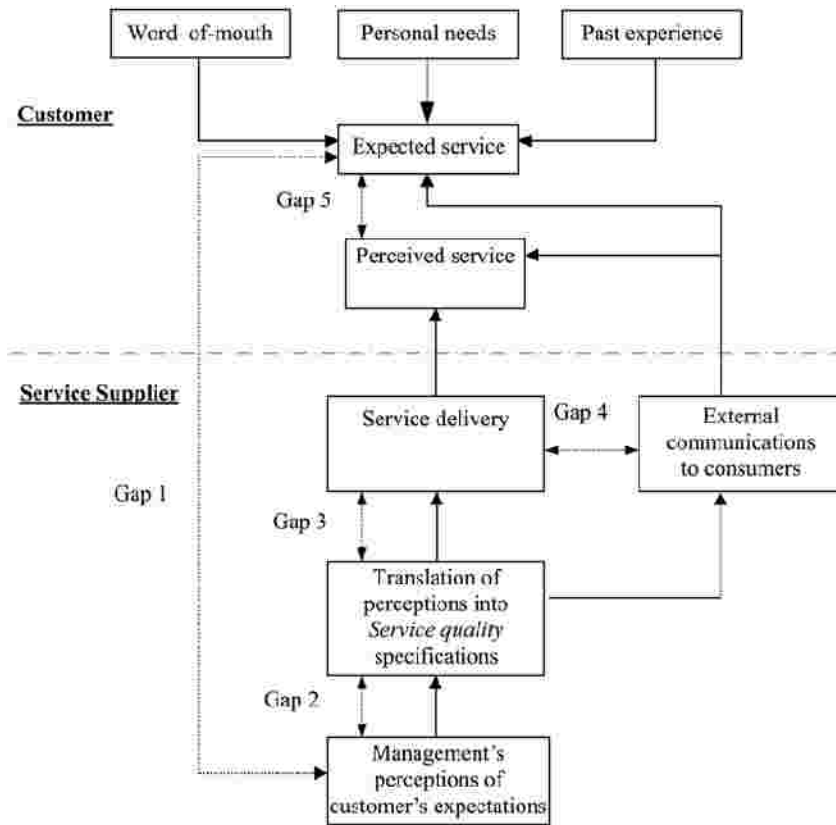
5. Responsiveness

Willingness to help customers and provide prompt service. Responsiveness concerns the willingness or readiness of employees to provide service. This dimension is also important because if the employee gives the best service, a customer would feel valued by the company.

Based on Parasuraman (1991), there are 22-item instrument for assessing customer perceptions of service quality. The SERVQUAL instrument is divided into 2 sections, which are expectations and perceptions.

Customer Gap

Customer gap is the difference between customer expectations and perceptions (Zeithaml, 2006). With SERVQUAL, it is possible to identify and measure the gap between customer expectations and perceptions. According to Parasuraman et al, there are 5 gaps that may cause customer to experience poor service quality. The last gap, which is the 5th, is the customer gap.



Source: Parasuraman et al. (1985)

Figure 1 Customer Gap

Zone of tolerance

Zone of tolerance is the extent to which customers recognize and are willing to accept the variation between perception and expectation (Zeithaml et al. 2012). The distance between the adequate and the desired levels is known as the 'zone of tolerance' (figure below, Parasuraman et al. 1991).



Figure 2 Zone of Tolerance

If service drops below adequate service – the minimum level considered acceptable – customers will be frustrated and their satisfaction with the company will be undermined. If service performance is higher than the zone of tolerance at the top end – where performance exceeds desired service – customers will be very pleased and probably quite surprised as well (Zeithaml et al. 2012).

Methodology

In this research, the author uses 7 steps:

1. Define Research Objective

Research objectives are the goals to be achieved by conducting research (Zikmund et al, 2010). The author defined the research objective at Warung Pasta Bandung.

2. Planning Research Design

Research design is a master plan that specifies the methods and procedures for collecting data and analyzing the needed information (Zikmund et al, 2010). The method that the author used to collect the data is survey method.

3. Questionnaire Design

Questionnaires are very flexible—there are many ways to ask questions (Kotler, Armstrong, 2012). The author made the questions on the questionnaire based on the 5 SERVQUAL dimensions, which are reliability, assurance, tangible, empathy and responsiveness and developed the Parasuraman questionnaire model, with 22 items. He performed a preliminary observation to Warung Pasta Bandung. Based on the observation, he added some new variables that haven't mentioned before in the questionnaire. After observation, he performed an interview with the manager of Warung Pasta Bandung. The purpose is to confirm the items on the questionnaire. Before the author interviewed the manager, he had received the confirmation from Human Resource Coordinator of Warung Pasta to distribute the questionnaire. There are 28 items that the author made based on the results of observing and interviewing. The items are as follows:

Reliability

1. Warung Pasta served the right food based on order
2. The price that Warung Pasta offer is match with the taste and portion
3. The portion that Warung Pasta served is appropriate with what promised (based on size and picture on the menu)
4. The waiting time for food to be served can be tolerated
5. Warung Pasta maintained the taste of the food

Assurance

1. Warung Pasta employees act nicely and politely
2. Warung Pasta employees have the knowledge to answer you question
3. You feel safe to do a transaction with Warung Pasta
4. You are confident that Warung Pasta employees are honest

Tangible

1. Warung Pasta employees' appearance is nice
2. The table and chair of Warung Pasta are arranged neatly and clean
3. The area of Warung Pasta is clean
4. Warung Pasta provide clean equipment (plate, spoon, fork, etc.)
5. The lighting of Warung Pasta is nice
6. The volume of music provided by Warung Pasta is appropriate
7. The decoration of Warung Pasta is nice
8. The parking area of Warung Pasta is adequate
9. The parking area of Warung Pasta is comfortable
10. Warung Pasta's toilet is clean
11. Warung Pasta's mushola is clean and comfortable

Empathy

1. Warung Pasta operating hours are convenient to you
2. Warung Pasta give you personal attention
3. Warung Pasta understand your requirement

Responsiveness

1. Warung Pasta employees tell customers exactly when services will be performed
2. Warung Pasta employees give you prompt service
3. Warung Pasta employees are always willing to help you
4. Warung Pasta employees never too busy to respond your request
5. Warung Pasta respond your complain immediately

For the scale, author used likert scale. With likert scale, respondent expressing their level of agreement or disagreement for a statement, in this case Warung Pasta service quality. The author used 5 level likert items, which are strongly disagree, disagree, neither agree nor disagree, agree and strongly agree.

Author used number to represents the level of agreement.

- 1 represents Strongly disagree
- 2 represents Disagree
- 3 represents Neither agree nor disagree
- 4 represents Agree
- 5 represents Strongly agree

The objective of this research is to measure the gap between customer expectation and perception. Thus, the author provided the expectation part and perception part in the questionnaire to reach the objective. The questions and answers provided by author for customer expectation and perception are exactly the same. Since there are 28 variables in this research, author measured the sample size by multiplying 28 with 10. So, the sample size is 280.

4. Sampling Method

Considering the objective of this research, the author used probability sampling. In probability sample, each member of the target population has a known and non-zero probability of inclusion in

the sample (Kish, 1965). The probability sampling technique that author used is simple random sampling. With simple random sample, each individual is chosen randomly and entirely by chance, such that each individual has the same probability of being chosen at any stage during the sampling process (Yates et al, 2008).

5. Data Collection

The data in this research are collected from the questionnaire. There are 280 questionnaires that the author has distributed and from that 280 questionnaire the author collected the data. The author put 200 questionnaires in Warung Pasta Bandung, the questionnaire distribution was done by Warung Pasta Bandung employees. For the rest 80 questionnaires, the author distributed the questionnaires via email to the author's colleagues, who are customers of Warung Pasta Bandung.

6. Data Analysis

Data analysis is the application of reasoning to understand the data that have been gathered (Zikmund et al, 2010). After the data have been collected from the questionnaire, the author recorded the data just as the respondent indicated. The data have to be analyzed to get the information needed. The data analysis in this research was using SPSS Software. The analysis in this research including:

- Respondent data
- Mean and standard deviation
- Validity test
- Reliability test
- The gap between customer expectation and perception

7. Conclusion and Recommendation

This is the last stage of this research. After the author analyzed the data and interpreting the result, the author makes a conclusion and list of improvement that can be done by Warung Pasta. The conclusion was based on the data analysis, focusing on which dimension has the highest and the lowest mean.

Data Collection and Analysis

Respondent Data

In the questionnaire, the author included questions about respondent's personal data. The data are including gender, age and occupation. The author has provided boxes of choice for gender and age to fill by the respondent. So, the respondent can check at the right box that matches his/her personal data. The author did not provide boxes for occupation.

Gender

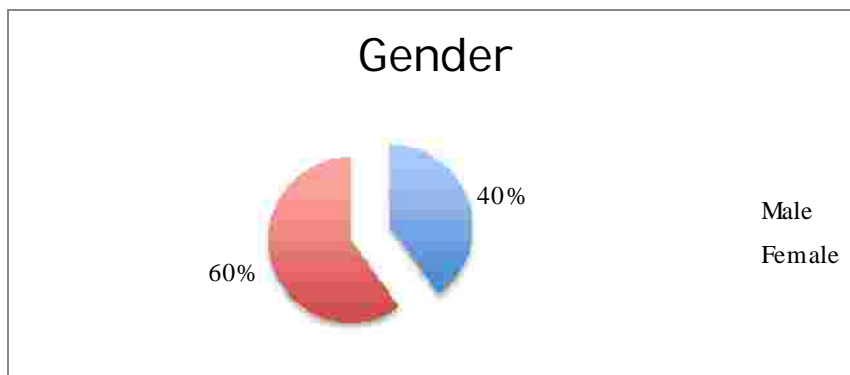


Figure 3 Respondent Gender

From the data collected, 168 respondents are women and 112 respondents are men. The percentage is 60% for women and 40% for men.

Age

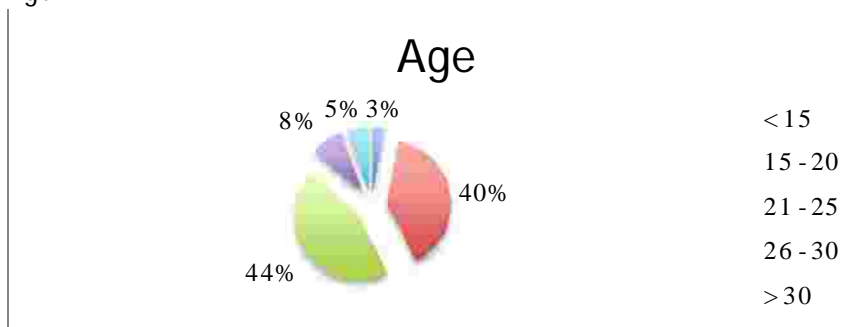


Figure 4 Respondent Age

The author divided the range of the age into five. Under 15 years old, 15-20 years old, 21-25 years old, 26-30 years old and over 30 years old. Most of the respondents are in the range 15-20 years old and 21-25 years old. 40% of the respondents are in the range of 15-20 years old, 44% of the respondents are in the range of 21-25 years old. This can be understood because the main target market of Warung Pasta is youngster and student. While under 15 years old, 26-30 years old and over 30 years old each has a proportion of 3%, 8% and 5%.

Occupation

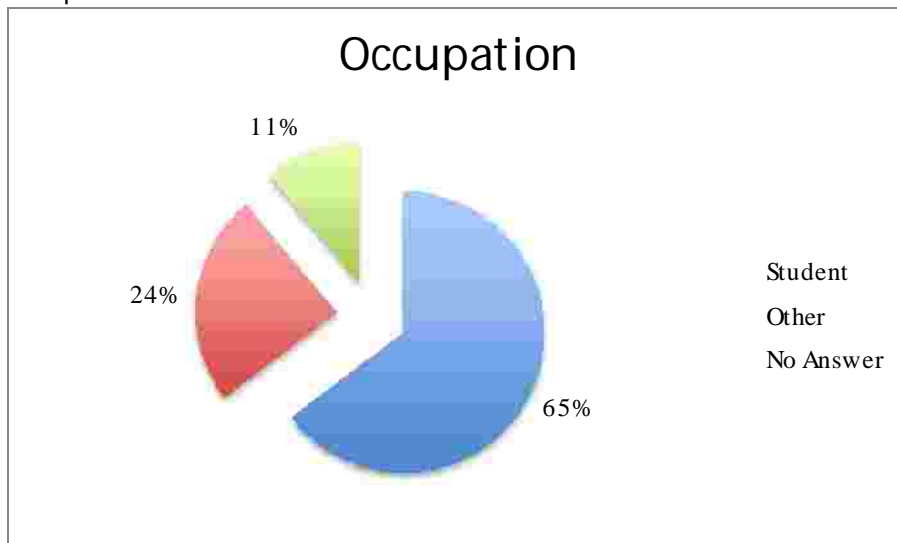


Figure 5 Respondent Occupation

From 280 questionnaires distributed, most of the respondents are students with the percentage of 65%. This is also can be understood because the main target market of Warung Pasta is youngster and student.

Reliability Test

Reliability dimension

Table 2 Expectation Reliability Test on Reliability Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items

.849	.849	5
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Table 3 Perception Reliability Test on Reliability Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.773	.772	5

Based on the tables above, the cronbach's alpha in reliability dimension on expectation and perception are 0.849 and 0.772. The reliability dimension is reliable since both cronbach's alpha of expectation and perception are higher than 0.600.

Assurance dimension

Table 4 Expectation Reliability Test on Assurance Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.841	.841	4

Table 5 Perception Reliability Test on Assurance Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.809	.811	4

Based on the tables above, the cronbach's alpha in assurance dimension on expectation and perception are 0.841 and 0.811. The assurance dimension is reliable since both cronbach's alpha of expectation and perception are higher than 0.600.

Tangible dimension

Table 6 Expectation Reliability Test on Tangible Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.920	.921	11

Table 7 Perception Reliability Test on Tangible Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.899	.901	11

Based on the tables above, the cronbach's alpha in tangible dimension on expectation and perception are 0.921 and 0.901. The tangible dimension is reliable since both cronbach's alpha of expectation and perception are higher than 0.600.

Empathy dimension

Table 8 Expectation Reliability Test on Empathy Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.815	.814	3

Table 9 Perception Reliability Test on Empathy Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.731	.731	3

Based on the tables above, the cronbach's alpha in empathy dimension on expectation and perception are 0.814 and 0.731. The empathy dimension is reliable since both cronbach's alpha of expectation and perception are higher than 0.600.

Responsiveness dimension

Table 10 Expectation Reliability Test on Responsiveness Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.890	.892	5

Table 11 Perception Reliability Test on Responsiveness Dimension
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.874	.876	5

Based on the tables above, the cronbach's alpha in responsiveness dimension on expectation and perception are 0.892 and 0.876. The responsiveness dimension is reliable since both cronbach's alpha of expectation and perception are higher than 0.600.

Validity test

For the validity test, the author comparing the value of corrected item-total correlation with r table. Since the sample size is different from the pretest, the r-value that author used to compare is also different. With sample size of 280 and confidence level at 95%, the r-value is 0.1173. So, the author compared the value of corrected item-total correlation with 0.1173. If the value of corrected item-total correlation is higher than 0.1173, the item is valid. If the value of corrected item-total correlation is less than 0.1173, the item is not valid.

Table 12 Validity Test

Dimension	Expectations			Perceptions		
	Corrected Item-Total Correlation	R table	Valid/ Invalid	Corrected Item-Total Correlation	R table	Valid/ Invalid
Reliability						
R1	0.614	0.1173	VALID	0.504	0.1173	VALID
R2	0.718	0.1173	VALID	0.578	0.1173	VALID
R3	0.700	0.1173	VALID	0.635	0.1173	VALID
R4	0.613	0.1173	VALID	0.436	0.1173	VALID
R5	0.653	0.1173	VALID	0.574	0.1173	VALID
Assurance						
A1	0.595	0.1173	VALID	0.578	0.1173	VALID
A2	0.682	0.1173	VALID	0.615	0.1173	VALID
A3	0.732	0.1173	VALID	0.701	0.1173	VALID
A4	0.697	0.1173	VALID	0.616	0.1173	VALID
Tangible						
T1	0.614	0.1173	VALID	0.644	0.1173	VALID
T2	0.671	0.1173	VALID	0.623	0.1173	VALID
T3	0.713	0.1173	VALID	0.666	0.1173	VALID
T4	0.677	0.1173	VALID	0.612	0.1173	VALID
T5	0.684	0.1173	VALID	0.639	0.1173	VALID
T6	0.566	0.1173	VALID	0.480	0.1173	VALID
T7	0.692	0.1173	VALID	0.650	0.1173	VALID
T8	0.752	0.1173	VALID	0.669	0.1173	VALID
T9	0.767	0.1173	VALID	0.692	0.1173	VALID
T10	0.749	0.1173	VALID	0.665	0.1173	VALID
T11	0.668	0.1173	VALID	0.650	0.1173	VALID
Empathy						
E1	0.583	0.1173	VALID	0.417	0.1173	VALID
E2	0.716	0.1173	VALID	0.592	0.1173	VALID
E3	0.707	0.1173	VALID	0.677	0.1173	VALID
Responsiveness						
RES1	0.721	0.1173	VALID	0.655	0.1173	VALID
RES2	0.774	0.1173	VALID	0.742	0.1173	VALID
RES3	0.769	0.1173	VALID	0.723	0.1173	VALID
RES4	0.693	0.1173	VALID	0.700	0.1173	VALID
RES5	0.721	0.1173	VALID	0.703	0.1173	VALID

From the table above, all item from all dimension are higher than 0.1173. Which means that all item are valid.

Customer Gap
Customer gap on reliability dimension

Table 13 Customer Gap

	Perception	Expectation	Gap
Reliability 1	3.9929	4.1607	-0.1678
Reliability 2	3.6536	3.9107	-0.2571
Reliability 3	3.7107	3.9786	-0.2679
Reliability 4	3.7821	4.0214	-0.2393
Reliability 5	3.9143	4.0821	-0.1678
Average	3.81072	4.0307	-0.21998
Assurance 1	4.1821	4.3571	-0.175
Assurance 2	3.9536	4.1393	-0.1857
Assurance 3	4.1179	4.2071	-0.0892
Assurance 4	3.9571	4.0857	-0.1286
Average	4.052675	4.1973	-0.14463
Tangible 1	4.0000	4.1179	-0.1179
Tangible 2	3.9179	4.1536	-0.2357
Tangible 3	3.9786	4.1893	-0.2107
Tangible 4	4.0071	4.2214	-0.2143
Tangible 5	3.5929	3.9250	-0.3321
Tangible 6	3.7000	3.9036	-0.2036
Tangible 7	3.6214	4.0000	-0.3786
Tangible 8	3.2857	3.7286	-0.4429
Tangible 9	3.3893	3.8143	-0.425
Tangible 10	3.5679	3.9714	-0.4035
Tangible 11	3.6464	3.8571	-0.2107
Average	3.70065455	3.98929091	-0.28864
Empathy 1	3.9250	4.0643	-0.1393
Empathy 2	3.5964	3.9036	-0.3072
Empathy 3	3.6821	3.9393	-0.2572
Average	3.7345	3.96906667	-0.23457
Responsiveness 1	3.5786	3.9036	-0.325
Responsiveness 2	3.7107	4.0500	-0.3393
Responsiveness 3	3.9893	4.1786	-0.1893
Responsiveness 4	3.7107	4.0286	-0.3179
Responsiveness 5	3.7893	4.0500	-0.2607
Average	3.75572	4.04216	-0.28644

From all the customer gap tables above, if the gap is ranked from the highest gap to the lowest, the first one is tangible dimension with -0.28864, the second is responsiveness dimension with -0.28644, the third is empathy dimension with -0.23457, the fourth is reliability dimension with 0.21998, the fifth is assurance dimension with -0.14463.

The customer gap from all dimensions is negative. It seems that customers' expectation is higher than the perception. Therefore, Warung Pasta should improve their service if they want to satisfy more customers. From the customer gap analysis, there are many things that can be done by Warung Pasta to improve the business.

Discussion

Based on data analysis above, there are several pieces of information that can be interpreted. The customer gap calculation shows that all dimensions have negative gap since the expectations value is higher than the perceptions value. The service provided by Warung Pasta Bandung does not seem to meet customers' expectations. From the five dimensions measured, the tangible dimension has the highest gap with the value of -0.28864. Following after tangible dimension are the responsiveness dimension, empathy dimension, reliability dimension and assurance dimension, respectively. From this data, the author argues that Warung Pasta Bandung needs to especially improve the tangible dimension as the priority for its improvement.

From the mean of perceptions section calculation, the tangible dimension has the lowest mean among five dimensions. Based on this data, it seems that customers of Warung Pasta Bandung do not get adequate service from the facilities. Although all dimensions have negative gap, it seems that the service provided by Warung Pasta Bandung is not severely bad. The tangible dimension, which has the highest gap and lowest mean on perceptions section, still seems acceptable for the customers. The mean on perceptions section of tangible dimension is 3.70065455. The author argues that this value cannot be considered low since it is still higher than the middle point. Overall, it seems that the service quality of Warung Pasta Bandung is still in the zone of tolerance, where customers are willing to accept the variation between perceptions and expectations.

Conclusion and Recommendation

Conclusion

After analyzing data in chapter IV, the author made three main conclusions for Warung Pasta Bandung:

1. Warung Pasta Bandung service seems to have built enough trust to the customers. It can be seen from the mean and standard deviation of the assurance dimension, which is the highest among five dimensions.
2. Customers of Warung Pasta Bandung do not seem to get adequate service from the facilities. It can be seen from the mean and standard deviation of the tangible dimension, which is the lowest among five dimensions.
3. The gap for all dimensions is negative. In other words, the perception mean is higher than the expectation mean. The summary of the gap is as follows:
 - a) Reliability dimension: -0.21998
 - b) Assurance dimension: -0.14463
 - c) Tangible dimension: -0.28864
 - d) Empathy dimension: -0.23457
 - e) Responsiveness dimension: -0.28644

Although the gap for all dimensions is negative, it seems that the service provided by Warung Pasta Bandung is not severely bad. Even the tangible dimension, which has the lowest mean (i.e. 3.70065455), still scores above the middle point (out of five). It seems that customers still accept the variation between perceptions and expectations. Overall, the service level of Warung Pasta Bandung is still in the zone of tolerance.

Recommendation

Author made recommendation to the highest gap for each dimension

Table 14 Proposed Improvement

Dimension	Statement	Proposed improvement	Degree of implementation
Reliability 3	The portion that Warung Pasta served is appropriate with what promised	<ul style="list-style-type: none"> • Make sure the size of the ordered menu from customers • Make miniature of the served food 	<p>Easy</p> <p>To make sure the size of the ordered menu from customers and make miniature of the served food are easy to do. The miniature could be useful as customer's reference in choosing the size of the food since Warung Pasta offers 3 sizes of portion for some menu.</p>
Assurance 2	Warung Pasta employees have the knowledge to answer you question	<ul style="list-style-type: none"> • Give knowledge to the employees about the menu and facilities in Warung Pasta Bandung • Try to explain information more detail • Remind the employees about the knowledge every week or every month 	<p>Easy</p> <p>The proposed improvements are easy to do. For questions about food, other employees can ask to chefs.</p>
Tangible 8	The parking area of Warung Pasta is adequate	<ul style="list-style-type: none"> • Provide more parking space 	<p>Very difficult</p> <p>Provide more parking space is very difficult to do, because to provide more parking space Warung Pasta need to add more land. But Warung Pasta Bandung can improve their business from other aspect before solve this problem, since this proposed improvement is difficult to do.</p>
Eempathy 2	Warung Pasta give you personal attention	<ul style="list-style-type: none"> • Remind the employees about 10 steps of service • Give more attention to the customers 	<p>Easy</p> <p>The proposed improvements are easy to do. The sixth step of 10 steps of service is</p>

			attention to the guest. It is the step after serve the product. It seems that the customers of Warung Pasta Bandung need more attention. Give extra attention to customers that have just arrived would be a good move, because they want to order something and it is good if they do not try hard to find the employees.
Responsiveness 2	Warung Pasta employees give you prompt service	<ul style="list-style-type: none"> • Reduce waste of motion, waiting and over processing 	Easy Reduce waste of motion, waiting and over processing is easy. The employees just need to train it.

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