DESIGN MEASUREMENT SYSTEM FOR CUSTOMER SATISFACTION CONSIDERING ISO 9001:2015 CLAUSE 9.1.2 IN SOES MERDEKA BANDUNG

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Abstrak:

Tujuan penelitian ini adalah untuk merancang sistem pengukuran di Soes Merdeka yang dapat diukur oleh perusahaan, karena pada saat yang sama perusahaan tidak memiliki sistem dan juga instrumen untuk menghitung tingkat kepuasan pelanggan. Dalam penelitian menggunakan atribut kepuasan pelanggan yang menyajikan seluruh pengalaman saat berbelanja seperti kualitas produk, harga, kualitas layanan, loyalitas konsumen, dan kepuasan pelanggan secara keseluruhan. Jenis data yang digunakan adalah data primer dengan memberikan kuesioner sebagai instrumen dan juga melakukan wawancara mendalam untuk mendapatkan persepsi pelanggan Soes Merdeka. Kuesioner disesuaikan dengan Skala Likert, di mana pertanyaan ditanyakan tentang kepuasan kinerja yang diberikan pilihan jawaban dari sangat puas sampai tidak puas. Instrumen dibuat dua variasi, untuk mencari instrumen yang paling efisien dan efektif, harus lulus uji validitas menggunakan SPSS dan validitas logis dan untuk uji reliabilitas menggunakan metode tes ulang.

Keywords: Customer satisfaction attributes, ISO 9001:2015, logical validity, test retest reliability, In-Depth interview.

Abstract:

The purpose of this study was to design measurement system in Soes Merdeka that can be measured by the company, because at the same time company do not have a system and also an instrument to calculate customer satisfaction level. In research using customer satisfaction attributes that presenting the whole experience while shopping such as product quality, price, service quality, consumer loyalty, and customer satisfaction overall. Type of data used are primary data by giving the questionnaire as instrument and also conducting in-depth interview to obtain customers perception of Soes Merdeka. The questionnaire tailored to the Likert Scale, where questions are asked about the satisfaction of performance given a choice answers from very satisfied until not satisfied. The instruments were made two variety, in order to find the most efficient and effective, instruments should passed validity test using SPSS and logical validity and for reliability test using test retest method.

Keywords: Customer satisfaction attributes, ISO 9001:2015, logical validity, test retest reliability, In-Depth interview.

1. Introduction

Customer satisfaction to a product or service produced by a company is an indicator success for the company concerned more than just selling the product, but also establish a good relationship with consumers and foster consumer confidence in the product indirectly. Toko Roti & Kue Merdeka which is now better known as "Soes Merdeka" is one of the subsidiaries under PT. Tirta Ratna, which was established on May 31, 1969. In addition to the city of Bandung, currently the Soes Merdeka has branches spread across several cities in Java and Bali, among others: Jakarta, Depok, Bogor, Jogjakarta, Surabaya and Denpasar-Bali.

Currently the management of Soes Merdeka one problems that occur is, the purchasing power of customers in Soes Merdeka is derived. This is due to the lack of conformity of expectations of products or services offered in Soes Merdeka to customers, and also due to the lack of excellent service between the bakery management and its customers, therefore loyal customers are more likely to buy other products from competitors. Fortunately building intimacy with customers requires a review and evaluation of increased customer satisfaction and also to get trust form loyal customers and also gain new customers.

2. Study Literature

2.1 Customer Satisfaction

Customer satisfaction is defined as an overall evaluation based on the total purchase and consumption experience with the good or service over time (Fornell, Johnson, Anderson, Cha & Bryant 1996).

2.2 Consumer Loyalty

Oliver (1999,33) defines loyalty as "Customer loyalty is viewed as the strength of the relationship between an individual's relative attitude and re-purchasing. Loyal customers will encourage others to buy from you and think more than twice before changing their mind to buy other services. There are 5 factors between customer satisfaction and customer loyalty. First, The factors that influencing customer satisfaction and loyalty generally in price, quality, reliability, empathy, responsiveness are the main factors that influence the customer satisfaction and loyalty. Second, factors influences customer satisfaction, refers to the selection, purchase, and consumption of goods and services for the fulfillment of their basic and the fundamental needs. Third, factor influences customer loyalty, several studies have proved that finding loyal customer is not accessible even the customers seem to be satisfied with the products and the services (Heskett, 2011). Fourth, relation between customer satisfaction and loyalty, Customer satisfaction is a key element for every organization wishing to increase customer loyalty and create a better business achievement.

2.3 Customer Satisfaction Indicators

First Indicator Concept:

In determining consumer satisfaction there are five factors that must be considered by the company (Lupyoadi, 2006: 15), such as Product quality, Quality of Service, Emotional, Price, Cost. In product quality consumers will be satisfied if the results of their evaluation indicate that the products they use are qualified. Quality of service especially for the service industry. Consumers will feel satisfied if they get a good service or as expected. Emotional factors explain that consumers will feel proud and gain confidence that others will be amazed by him when using products with a particular brand that tends to have a higher level of satisfaction. Satisfaction obtained not because of the quality of the product but the social value that makes consumers become satisfied with certain brands. Price factors is Products that have the same quality but set a relatively cheap price will give a higher value to consumers. Last, cost factors tend to Consumers who do not need to spend additional costs or do not have to waste time to get a product or service tend to be satisfied with the product or service.

Second Indicator Concept:

Hawkins and Lonney quoted in Tjiptono (2004: 101) attribute-forming satisfaction such as Conformity of Expectation, Interest Back Visit, Willingness to Recommend. Conformity of expectation it is the level of conformity between the performance of the product the customer is expecting and the customer feels. Interest back visit It is customer's pleasure to pay a visit or re-purchase the related products. Willingness to recommend is the customer's willingness to recommend products that have been felt to friends or family.

2.4 Customer Satisfaction Tool

Tjiptono (2006:148) suggests there are four methods that every company can use to measure and monitor customer satisfaction (as well as competitors' customers). Four techniques to measure customer satisfaction such as Complaints and Suggestions System, Customer Satisfaction Survey, Ghost shopping, Lost customer analysis.

2.5 Collecting Data Method

2.5.1 Purposive Sampling

According Sugiyono (2013: 218-219) purposive sampling is a technique of sampling the source data with certain considerations. Purposive sampling is one of the non-random sampling sampling technique where the researcher determines the sampling by determining the special characteristic which is suitable with the purpose of the research so that it is expected to answer the research problem. Based on the explanation of purposive sampling, there are two things that are very important in using the sampling technique, which is non random sampling and set the special characteristics according to the research objectives by the researchers themselves.

2.5.2 Validity Technique Corrected Item Total Correlation

This analysis is by correlating each item score with the total score and correction of the correlation coefficient value which is overestimated. This is because in order to avoid overestimating total item coefficients (estimated value higher than actual). Alternatively, this analysis calculates the correlation of each item with the total score (Bivariate Pearson Technique), but the total score here excludes the item score to be calculated According to Azwar (2007) so that we obtain more accurate information about the correlation between the items with the test required a correction formula to the effect of spurious overlap.

The test used a two-tailed test with a significance level of 0.05. The test criteria are as follows:

- If r arithmetic> r table (2 sided test with sig 0.05) then the instrument or question items correlate significantly to total score (declared valid), and so the otherwise.

2.5.3 Logical Validity

Logical validity is type of validity refers to the extent to which the contents of a measuring instrument are representations of aspects to be measured. To obtain a high logical validity a measuring instrument must be designed in such a way that it really contains only relevant items and needs to be part of the overall measuring instrument. A measuring object to be revealed by the measuring instrument should be limited first the area of behavior carefully and concretely. Logical validity is very important role in the preparation of test presentation and scale-up, by using blue-print or table specifications.

2.5.4 Test Retest Reliability

Test-retest reliability is reliability test by giving the same questionnaire to a respondent in different time. Given by a period of two or four weeks (Malhotra, 2012: 317). The correlation between the scores obtained from the same respondents was calculated to be seen in the same level. The higher the value of the correlation, the higher the degree of inclination. This type of measurement has many shortcomings, namely: first, the problem of time. The greater the first and second testing distance, the less reliable the scale is. Second, the environmental factors will change and will affect the test results. Third, the difficulty of obtaining the same respondent for the second test. Fourth, respondents will usually answer the same as the one in the first test (McDaniel and Gates, 2013: 286).

2.5.5 Likert Scale

This scale is used to measure the attitudes, opinions and perceptions of a person or group of people about the phenomenon or social phenomena that occur. This has been specified by the researchers. Hereinafter referred to as research variable. Then spelled out through dimensions into sub-variables, then become an indicator that can be used as a benchmark to compile items of questions or statements related to research variables (Iskandar, 2009: 83). Revelation or statement was then responded in the form Likert scale, which is expressed through words such as; agree, strongly agree, enough, disagree, strongly disagree

2.6 Process Design Business Process Management (BPM)

In designing a system, it need a method to designing the process business. The process design requires two parts, first the context and second Process. The context consists of Objective and relation to organization purpose, Customer, Output and relation to customer and objectives, Input and event driven, and Performances and performances target. The process itself consists of Activity or sequence and interaction, Deliverables and state (location), Organization, function and roles (responsibilities and authorities), Criteria (specification), Rules, Performance Indicators, Performance Measurements, Ensure the effective operation (control monitoring and evaluation), Risk and opportunities

2.7 Requirements of ISO 9001:2015

The ISO 9001 standard contains the requirements of the management system quality. The structure of ISO 9001: 2015 that is focused on Customers Satisfaction. Content of Clause 9.1.2 about customer satisfaction, the organization should Monitor customer perceptions to see how far requirements have been met and Determine methods for collecting, monitoring and obtaining this information.

2.8 Research Methodology

Designing customer satisfaction gauges considers aspects that build customer satisfaction such as components of Service Quality, product, pricing, Consumer Loyalty and Customer Satisfaction in general. This conceptual model is a structured design that contains interrelated and organized concepts and relation to the

reference theory for this research. The conceptual model in designing assessment of customer satisfaction as follows:
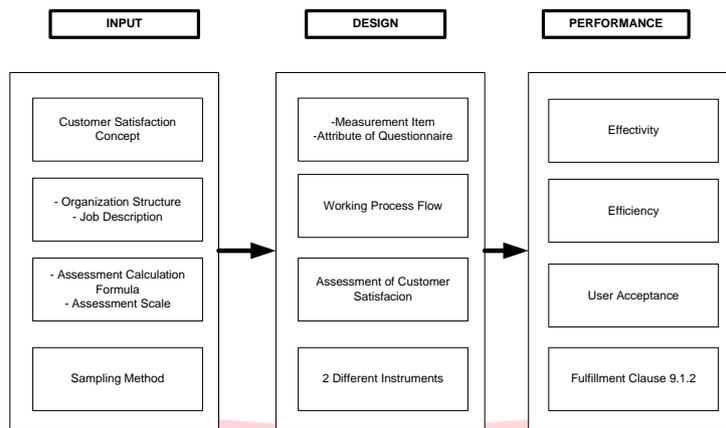

Figure 2. 1 Research Conceptual Model

3.1 Methods and Analysis

3.2 Designing Instruments

a.   Variable Instruments Plan on Questionnaire

Table 3. 1 Variable Instruments Plan on Questionnaire 1

Dimension	Variable	Indicator	Category	Scale
Conformity of Expectation	Product Quality	1. No defect product	STS-SS 1-5	Likert, where 1=Strongly Disagree and, 5= Strongly agree
	Price	2. Price Compatibility with Product Value		
	Service Quality	3. Hospitality of staff (Empathy) 4. Knowledge of Product (Assurance) 5. Speed of Service (Responsiveness) 6. Hygiene of facilities (Tangibles) 7. Served from the beginning of arrival until return (Reliability)		
Consumer Loyalty	Word of Mouth Re-Purchasing	8. Recommendation to relative	STS-SS 1-5	Likert, where 1=Strongly Disagree and, 5=

		9. Intention to another purchasing		Strongly agree
Customer Satisfaction	Performance	10. Generally the performance of Soes Merdeka suitable with customer expectations	STS-SS 1-5	Likert, where 1=Strongly Disagree and, 5= Strongly agree

b.   Variable Instruments Plan on Questionnaire 2

Tabel 3. 2 Variable Instruments Plan on Questionnaire 2

Dimension	Variable	Category	Scale
Product	1. Product Variations 2. Product Quality 3. Taste 4. Appearance of Product 5. Serving	STS-SS 1-5	Likert, where 1=Strongly Disagree and, 5= Strongly agree
Price	6. Price	STS-SS 1-5	Likert, where 1=Strongly Disagree and, 5= Strongly agree
Service	7. Speed of Service 8. Staff Hospitality 9. Staff skill to elaborate product	STS-SS 1-5	Likert, where 1=Strongly Disagree and, 5= Strongly agree
Ambience	10. Exposure (lighting) 11. Temperature of the room 12. Hygiene	STS-SS 1-5	Likert, where 1=Strongly Disagree and, 5= Strongly agree
Customer Satisfaction	13. Product satisfaction 14. Service satisfaction	STS-SS 1-5	Likert, where 1=Strongly Disagree and, 5= Strongly agree
Consumer Loyalty	15. Recommendation to relation	STS-SS 1-5	Likert, where 1=Strongly Disagree and, 5= Strongly agree

3.3 Instruments Differences

Table 3. 3 Instruments of Differences

Questionnaire Component	Questionnaire 1 (K1)	Questionnaire 2 (K2)
Questions	10	15

Respondent	30	30
Scale	Likert Scale	Likert Scale
Column Fill	Cross (X)	Checklist (✓)
Identity	Name, Age, Occupation, Frequency of visits	Name, Age, Occupation, Frequency of visits
Filling Questionnaire (time)	7 Minutes	7 Minutes
Effectivity	Effective and Comprehensive	Effective but not Comprehensive
SPSS Result	Reliable 0.915	Reliable 0.897
Conclusion	Used	Not Used

From the table above we can conclude that the motive to select from both instruments are, the effectivity, efficiency and also the reliability of instrument. The table above stated based on the differences, the instruments to be used is Questionnaire 1 (K1).

3.4 Sampling

Population of this study is infinite (unlimited), because number of customers to vary over time. Using purposive sampling method the sample used considered to have represented of all population, considered suitably representative (representatives). Samples of data used in this research, 30 samples were gained who meet the requirements of respondents which are the customers of Soes Merdeka.

3.5 Validity Test

1. Using Concurrent Validity

$$r = \frac{1}{n-1}\left(\frac{\sum x \quad \sum y \quad (x-\bar{x})(x-\bar{y})}{s_x s_y}\right)$$

Table 3. 1 Classification Correlation Value

Coefficient Interval	Relation Level
0,00-0,19	Very Low
0,20-0,39	Low
0,40-0,59	Strong Enough
0,60-0,79	Strong
0.80-1,00	Very Strong

Total respondent in survey is 30 person, when testing the questionnaire we have to give a confidence level value of 95% or in conversion to be 0.05 then according to Table r statistic, which is DF = n-2 then DF used is DF = 28 the value of r table is 0.361.

Table 3. 2 Table R Statistics

No	DF= n-2	r 0.05 (95%)
1	28	0.361

Source: Table R Statistics Rumushitung.com

From the calculation of Pearson Product Moment Correlation calculation formula above can be found the correlation value r is:

No	R_{xy} Correlation	R_{xy} Table	Conclusion	Relation Level
1	0.98	0.361	Valid	Very Strong

Based on the above table of data collection based on survey and In Depth Interview, in accordance with the provisions of the correlation theory pearson product moment if the correlation value r greater than the r table then the test declared valid, the strength of correlation also considered very strong.

2. Using Logical Validity

The way to do Logical Validity is using In-Depth Interview, in order to do so, the research conducting the same question to same respondent in different time to test the validity of questionnaire. The test stated to be valid if the answers of questionnaire and In-Depth Interview are same.

3.6 Reliability Test

Reliability actually a test to measure a questionnaire which is an indicator of the variables or constructs. Questionnaire said to be reliable if answers from questions are consistent over time. In conducting the reliability test using SPSS version 23 for Windows. Based on reliability test results between test week 1 and test week 2 of customers from questionnaire distributed, Test reliability used is Test Retest method, this method is used to see consistency and correlation of measuring instrument. The first and second reliability results are correlated and if the result is the same then the Test Retest technique is reliable. The first and second questionnaires spread over 14 days.

Output Week I Test	Output Week 2 Retest
0.915	0.915

3.7 Calculation of Instruments

1. Total Likert Score

Based on the tabulation and recap of the questionnaire results, there are 30 respondents and 10 questions given, then the results are summarized to obtain Likert Score as follows:

Weight	Frequency of Answer	Weight x Frequency of Answer	Score
STS = 1	0	1 x 0	=1
TS = 2	4	2 x 4	=8
C = 3	73	3 x 73	=219
S = 4	147	4x 147	=588
SS = 5	76	5 x 76	=380
Answers Count	300	**Total Score**	1195

2. Index Value

   Maximum Score: Total of Respondents x Highest Score Likert x Number of Questions
   To calculate Index Value, it formulized as follows:

$$\text{Index Value (\%)} = \text{Total Score / Maximum Score}$$
$$= 1195 / 1500$$
$$= 79{,}6\% \sim 80\%$$

Conclusion: That the survey results show that Soes Merdeka's customer satisfaction is 80% which is in Category B= Good.

3.8 Assessment System
1. General Terms

   The time period of survey between one to the next period can be done 3 (three) to 6 (six) months or at least 1 (one) year. Measuring customer satisfaction level is implemented at least once a year.
2. Success Criteria
   a. Customer satisfaction can be monitored regularly according to the procedure applied.
   b. The loyal customers still re-purchasing in Soes Merdeka.
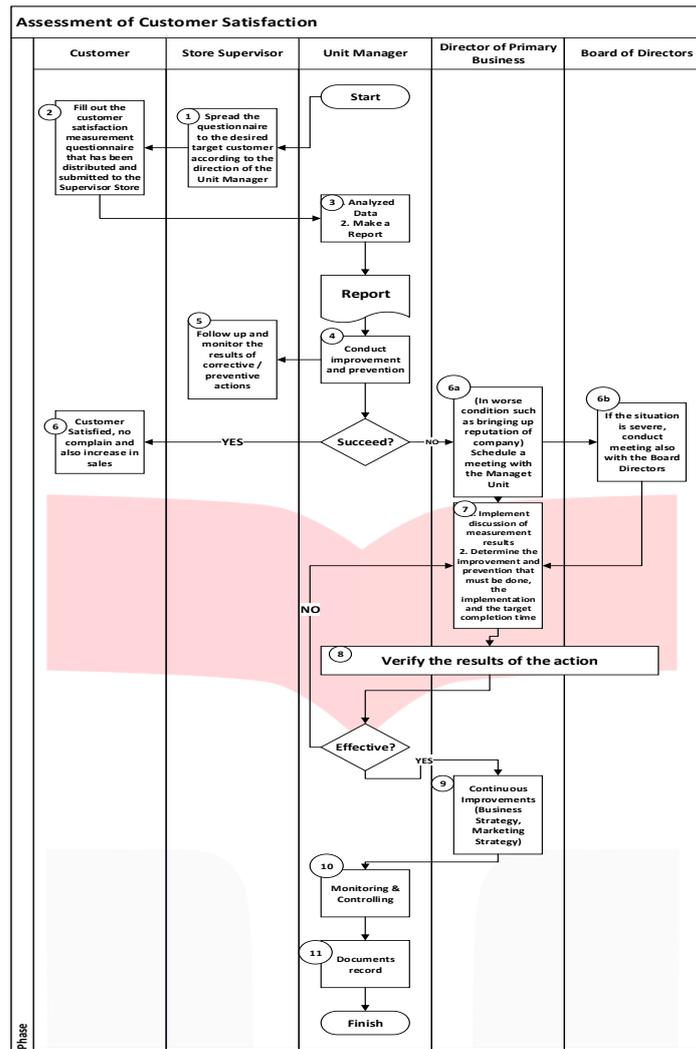   c. New customers increased.

Figure 3. 1 Assessment System Flow

4. Conclusion

After conducting the research, instrument that have been made has met the target and the desired target is which is to measure customer satisfaction and also assessment system for company. The research also already been implemented and verified the validity, reliability, effectivity and efficiency of instruments. The instrument has been verified by made a form of verification that has been test by company. From now on the company knows which art of their performance should be improve and which aspects should be prevent, to avoid losing loyal customers and also gain new customers. The ISO 9001 standard contains the requirements of the management system quality. Content of Clause 9.1.2 about customer satisfaction, the organization should Monitor customer perceptions to see how far requirements have been met and Determine methods for collecting, monitoring and obtaining this information. The proposed document of this research is to fulfill document ISO 9001:2015 clause 9.1.2 for company in case the company want to take ISO 9001 certification in the future.

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