

Effect of Service Quality and Condition of Facilities & Infrastructure to Satisfaction Participants of Basic Safety Training

Darul Prayogo¹⁾, Supendi²⁾, RR Retno Sawitri Wulandari³⁾
Corresponding Author: Darul Prayogo

ABSTRACT: Indonesia as the world's third largest sailor supplier (provider) with a total number of seafarers \pm 150,000 people. We should look at this as a condition of employment opportunities as well as challenges and alternative sources of foreign exchange earnings. To answer this and to take advantage of this opportunity, the Indonesian Marine Institution as a seafarer supplier should improve itself to educate and produce graduates of seafarers to meet those needs to suit developments at all levels (Level Management, Operational Level and Supporters). This study aims to see how big the quality of Basic Training Training (BST) and Infrastructure Facility on Customer Satisfaction at Jakarta Merchant Marine Higher Education (2015). The sampling technique used is cluster proportional random sampling. Cluster in this research is done at Merchant Marine Higher Education, Basic Safety Training Program (BST). Proportional random sampling based on the number of trainees each month is taken randomly. The validity of the test instrument has been greater than the price table r (0.334) so that the instrument is valid and can be used as a test instrument. Data analysis technique used is descriptive analysis technique percentage. Based on the criteria set, the percentage is included in either category. In this study, the sample size was calculated based on the Krejcie table. If the average monthly participant counts 720 participants with a 5% error rate, then 250 random samples are taken. Of the total sample, it will take as many as 35 people to become a test instrument. The author uses two methods: questionnaires and documentation. Data analysis techniques using Likert scale, simple linear regression analysis, correlation coefficient analysis and hypothesis testing. Results of evaluation and discussion. Quality of training and training. Basic Safety Training 27.5%. From service and condition of existing facilities. While the remaining 72.5% is owned by other factors that are not researched. Quality Training and Training at Jakarta Merchant Marine Higher Education. The higher the quality of service and the condition of existing infrastructure, the higher the level of customer satisfaction.

Keywords: Quality of service, condition of infrastructure, customer satisfaction.

Date of Submission: 14-06-2017

Date of acceptance: 08-08-2017

I. INTRODUCTION

The background of the implementation of a special seafarers training program at Merchant Marine Higher Education (STIP) as an effort to participate in implementing the government program that is to educate the life of the nation, where the geographical condition of Republic of Indonesia is an archipelago. Therefore Sea Transportation mode plays a very important role in the implementation of development that is insightful archipelago. Related to the existence of the Merchant Marine Higher Education (STIP) college mentioned above, the change of STIP to Public Service Board (BLU) on February 5, 2009 requires the optimization of management and delivery of education services in the field of shipping industry to the community, increasing financial feasibility, flexibility and Financial management based on the principles of efficiency and productivity, and apply sound business practices without abandoning the role and social function of Jakarta Merchant Marine Higher Education (STIP) by not giving priority to profit only.

Based on the Decision of the Head of Education and Training of Transportation Agency number: SK 898 / KP 208 / IX / Diklat-08 on Minimum Service Standard of Jakarta Merchant Marine Higher Education (STIP), Institution is required to provide services to training participants. As a benchmark of service quality in the implementation of Tri Dharma College must consider the quality of service, equity and equality of services and the ease of obtaining services in Merchant Marine Higher Education (STIP)

The Jakarta Merchant Marine Higher Education (STIP) has ISO 9001: 2008 Certification, which is an international standard governs the Quality / Quality management system. ISO 9001: 2008 sets out the requirements and recommendations for the design and assessment of a quality management system. It can be

concluded that the Quality Management System (ISO 9001: 2008) is a documented procedure and standard practice for system management, which aims to ensure the conformity of a process and product (goods or services) to a particular need or requirement, are specified or specified by the customer and the organization.

Beside of that, which is not less important is the factor of supporting facilities and infrastructure in the field that can support the performance of training institutions as well as to provide convenience and a sense of satisfaction to consumers and provide a sense of security and comfort during the training, along with the rapid advances in technology that makes consumers more selective and start taking into account the ease side they can gain from the new technology.

II. LITERATURE REVIEW

1. Theory of Quality.

According to some experts / quality teachers in the book "Prinsip-prinsip Total Quality Service" by FandyTjiptono, (2008: 11) mentioned several definitions of quality. According to Joseph M. Juran that he defines quality as fitness for use, this definition emphasizes the orientation to the fulfillment of consumer expectations. According to Taguchi, he defines quality as a loss incurred by a product for society after the product is delivered, in addition to losses caused by the intrinsic function of the product.

2. Theory of Service

According to WiraSutedja (2007: 5) in his book entitled "Panduan Layanan Konsumen" defines the Service as an activity or advantage that can be offered by one party to another, where the service is essentially intangible and unending. On the ownership, the product of service may be physical product or not, according to him the service can also be classified into two parts, that is based on the person providing the service or based on the equipment.

3. Theory of Basic Safety Training

Basic Safety Training is a training that must be owned by prospective seafarers before working on board. A prospective seafarer performs basic skills training "Basic Safety Training (BST)" for 8 (eight) days. After graduation then will be Certificated of Certificate of Skill (Certificate of Proficiency).

4. Theory of Facilities and Infrastructure.

It means everything that can be used as a tool in achieving goals (Ali, 1996: 880). Infrastructure is all things that are the main support the implementation of a process (Ali, 1996: 796). According to "Kamus Besar Bahasa Indonesia", the definition of facility is everything (can be a condition or effort) that can be used as an aid or media in achieving the purpose or goal (Great Dictionary of BI, 2002: 999). While Infrastructure is Everything that is the main support of the implementation of a process (business, development, project, etc.), (Great Dictionary of BI, 2002: 893). While the facilities - infrastructure according to a construction expert and public facilities, Gasperz (1997: 27), facilities - infrastructure that are grouped into the category of serviceability, is everything associated with the convenience obtained by consumers of the products used. It means that more facilities provided by the provider of products (goods / services) to consumers, more the convenience for consumers

5. Theory of Consumer Satisfaction

According to FandyTjiptono (2008: 12), Consumer's satisfaction and dissatisfaction is the consumer's response to the evaluation of discrepancy / disconfirmation that is felt between the previous expectations and the actual work of the perceived product after its usage. Continued by a statement from Engel, (1990) revealing that "Consumer satisfaction is a The purchasing evaluation whereby the chosen alternatives at least deliver results equally or exceed consumer expectations, while dissatisfaction arises when the results not according to consumer expectations. While according to marketing expert Kotler (1994) states that "Consumer satisfaction is the level of a person's feelings after comparing the performance or the results he felt compared to the expectations

III. METHODOLOGY

A. Methods Used

Approach method used in this research is study of the case and quantitative method. Quantitative methods are the science and the arts related to the method of data collection, data analysis, and interpretation of the results of analysis to obtain information for taking conclusions and making decisions. (Silohun, 2001)

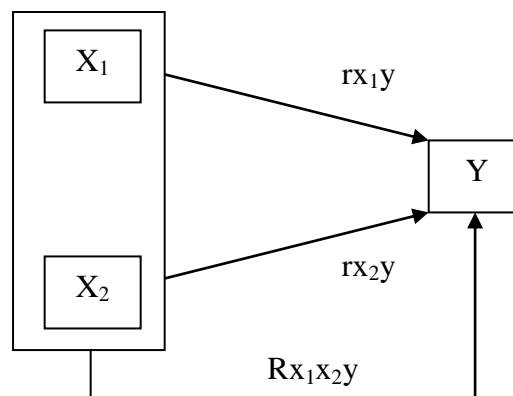


Figure 3.1 Constellation of research model

Information :

- X1 = Quality of service
- X2 = Condition of facilities - infrastructure
- Y = Consumer satisfaction
- Rx1y = Correlation value between X1 and Y
- Rx2y = Correlation value between X2 and Y
- Rx1x2y = Correlation value between X1; X2 and Y

A. Data Collection Technique

Based on the title of this research, the type of research used is a correlational survey (Nazir, Moh. 1999: 65). In order to obtain the data that can be tested truth, relevant and complete, in this research will be used data collection methods as follows:

1. Questionnaire Method
2. Documentation Method

B. Determination Technique of Population and Sample

1. **Population.** The place that used as research location is Jakarta Merchant Marine Higher Education (STIP)Marunda Makmurstreet, Cilincing, North Jakarta. The research was conducted between January and December 2012. In this study, the population used as the object of research is the users of services "Basic Safety Training (BST)". The total population is 8650 Participants.

2. **Sample.** In this study, the large number of samples is calculated based on the Krejcie table (Sugiyono, 2005: 63). If the average number of population per-month is 720 participants with a 5% error rate, then the sample size is 250 and taken at random. Of the total population, 35 people were taken to test the instrument. The sampling technique used is Cluster Proportional Random Sampling. Cluster in this research was conducted at Jakarta Merchant Marine Higher Education, Short Course Basic Safety Training (BST). Proportional Random Sampling is based on the number of monthly training participants drawn at random.

C. 1. Descriptive Percentage Analysis Result

A) Quality of Service

Description of service quality based on the results of filling questionnaires can be seen in table 4.1 below:

Table 4.1 Description of Service Quality

No.	Interval	Criteria	Frequency	Percentage
1	61 - 80	Very good	28	11%
2	41 - 60	Good	208	83%
3	21 - 40	Less good	14	6%
4	1 - 20	Very less good	0	0%
Total			226	100%

Based on table 4.1 seen in the variable quality of service included in it are: Convenience, security, standard and reliability. As many as 11% included in the category of very good, 83% included in the good category and as many as 6% included in the category less good.

B) Condition of Facilities and Infrastructure

Description of the condition of facilities and infrastructure based on the results of filling questionnaires can be seen in table 4.2 below:

Table 4.2 Description of the condition of facilities and infrastructure

No.	Interval	Criteria	Frequency	Percentage
1	60 - 79	Very good	32	13%
2	40 – 59	Good	198	79%
3	20 – 39	Less good	20	8%
4	1 – 19	Very less good	0	0%
Total			226	100%

Based on table 4.2 seen in the variable condition of facilities and infrastructure included are: Facilities, physical appearance, system and attractiveness. The Total of 13% included in the category of very good, 79% good and as many as 8% included in the category less good.

C) Consumer Satisfaction

Description of consumer satisfaction based on the results of the questionnaire filling can be seen in table 4.3 below:

Table 4.3 Description of Consumer Satisfaction

No.	Interval	Criteria	Frequency	Percentage
1	62 - 81	Very good	47	19%
2	42 – 61	Good	188	75%
3	22 – 41	Less good	13	5%
4	1 – 21	Very less good	2	1%
Total			226	100%

Based on table 4.3 seen in the variable of customer satisfaction included in it are: Frequency of usage, recommendation, loyalty, perception and appreciation. A total of 19% included in the category of very good, 75% good, as many as 5% included in the category of less good and as much as 1% included in the category of very less good.

Test Results Requirements

A. Data Normality Test

Table 4.4 Normality Test Results Using Kolmogorov-Smirnov Tests of Normality

		VAR00002	Kolmogorov-Smirnov(a)		
			Statistic	Df	Sig.
VAR00001	X1		.054	226	.200(*)
	X2		.043	226	.200(*)
	Y		.051	226	.200(*)

* This is a lower bound of the true significance.
a Lilliefors Significance Correction

a. Linearity Test

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Kepuasan Konsumen

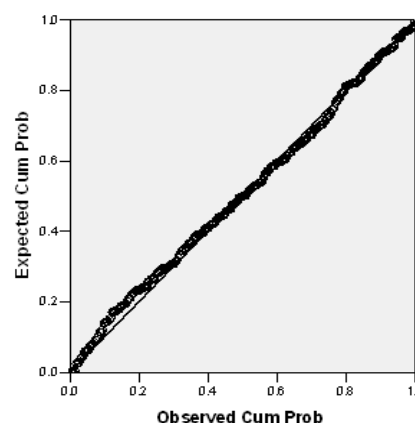
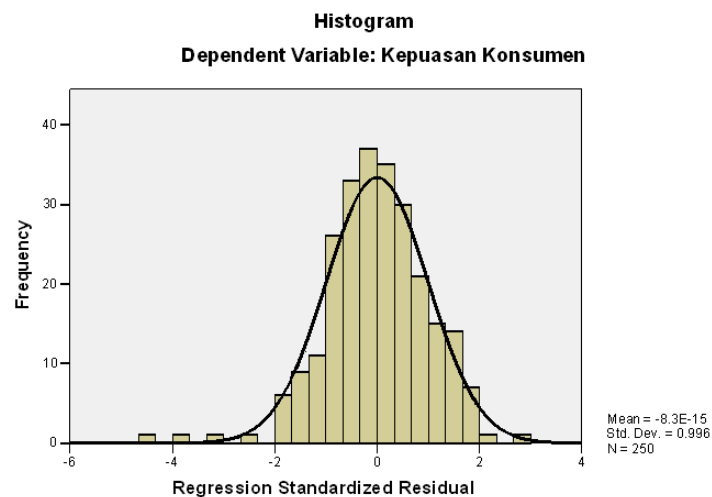


Figure 4.4 Line Linearity among variables

b. Homogeneity Test

Table 4.5 Homogeneity Test Results Using Levene Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
VAR00001	Based on Mean	2.307	4	1125	.056
	Based on Median	2.303	4	1125	.057
	Based on Median and with adjusted df	2.303	4	1118.625	.057
	Based on trimmed mean	2.311	4	1125	.056



D. Multicollinearity Test

Table 4.6 Multicollinearity Test Results Coefficients(a)

Model	Correlations	Collinearity Statistics	
	Partial	Tolerance	VIF
(Constant)			
Quality of Service	.099	.779	1.284
Condition of Infrastructure	.138	.809	1.236

Dependent Variable: Consumer Satisfaction

1. Hypothesis Test

Influence of service quality, condition of infrastructure to consumer satisfaction.

Table 4.7 The results of the analysis of the influence of service quality, the condition of infrastructure facilities to customer satisfaction. Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations Partial	Collinearity Statistics	
		B	Std. Error	Beta				Tolerance	
1	(Constant)	21,262	6,030		3,526	,001			
	Kualitas Pelayanan	,169	,069	,138	2,456	,015	,274	,154	,133
	Kondisi Sarana Prasarana	,573	,068	,473	8,395	,000	,513	,471	,453

a Dependent Variable: customer satisfaction

Based on the calculation, obtained information as follows:

1. Scores t service quality variables obtained score of 2.456 and a score of significance of 0.015. then because the score of significance < 0.05 makes H0 rejected, so it can be concluded that the variable quality of service influence on customer satisfaction.
2. Scores t variable condition of infrastructure obtained by the score of 8.395 and a significance score of 0.000 then because the score of significance < 0.05 makes H0 rejected, so it can be concluded that the variable condition of infrastructure facilities affect consumer satisfaction.

IV. ANALYSIS AND DISCUSSION

Table 5.1 Theresults of analysis of theeffect of servicequality, condition of infrastructure facilities on job satisfaction. Model Summary (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,530(a)	,281	,275	7,12294	,281	48,170	2	247	,000

a Predictors: (Constant), the condition of infrastructure facilities and service

b Dependent Variable: customer satisfaction

based on the result of the calculation of correlation coefficient obtained R score of 0.275. Therefore it can be concluded that the quality of service and the condition of infrastructure facilities contributed 27.5%. While the rest of 72.5% influenced by other variables that are not examined.

A. Discussion

Influence of service quality and condition of infrastructure to Customer Satisfaction The results showed that the service quality variable in good category, that is 83%, the condition of infrastructure facilities in good category, that is 79% and satisfaction of consumer in good category, that is equal to 75%. Selection of products and services, consumers have needs and expectations. Service will be valued to provide quality, if the services provided meet or exceed the expectations of consumers and institutions can satisfy most customer needs as long as the time. So one of the important factors that require special attention is the quality of service provided by the College of Shipping Science to participants of the short course. One of the approach to service quality is widely used as a reference in marketing is SERVQUAL (Service Quality) model developed by Parasuraman, Zeithaml, and Berry (1990). SERVQUAL is an empirical method that can be used by service agencies to improve the quality of their services. SERVQUAL is built on the comparison of two main factors: customer perceptions of the services they receive (perceived service) with expected / expected services. If the reality is more than expected, then the service can be said to be qualified, while if the reality is less than expected, then the service is said not qualified. If reality equals expectations, then the service is said to be satisfactory.

This approach will be followed by the College of Shipping Science in instilling satisfaction with the participants of the short course. Quality has a close relationship with customer satisfaction. Quality provides an incentive for customers to forge strong bonds with their institutions. In the long term such ties allow the College of the Sea Sciences to understand carefully the expectations of customers as well as their needs. Thus, the College of the Sea Sciences can improve customer satisfaction by maximizing a pleasant customer experience and minimizing the unpleasant customer experience (Tjiptono, 2006). The infrastructure of this Basic Safety Training is one of the shape of input, while input is one of the subsystem. Infrastructure is very necessary to support the skills of training participants to be ready to compete against the rapid technology. Facilities infrastructure is an important part that needs to be prepared carefully and continuously, so it can be guaranteed the Teaching Learning Activities always happen smoothly. In the educational provision, the infrastructure is needed to produce effective and efficient Teaching and Learning Activities is regulated in Government Regulation No. 19 Year 2005 on National Education Standards concerning education facilities and infrastructure standards nationally in Chapter VII Article 42. Care and maintenance of infrastructure facilities must always be done so that the conditions are always excellent and ready to be used at any time. Good service is the ability of institutions in providing services that can provide satisfaction to consumers by predefined standards, where the ability is indicated by human resources and facilities and infrastructure owned.

V. CONCLUSIONS AND SUGGESTIONS

A. Conclusion

Based on the results of research proved that the quality of service variables Basic Safety Training (X1) and the condition of infrastructure (X2) has a relationship to consumer satisfaction. In can be concluded as follows:

1. Quality of service significantly affects the satisfaction of the participants of Basic Safety Training of Jakarta Merchant Marine Higher Education. The higher the quality of service provided, the higher the level of customer satisfaction.
2. The condition of infrastructure facilities have an effect on the satisfaction of the participants of Basic Safety Training of Jakarta Merchant Marine Higher Education. The better the condition of existing infrastructure, the higher the level of customer satisfaction.
3. The quality of service and the condition of the infrastructure has an effect on the satisfaction of the participants of Basic Safety Training of akarta Merchant Marine Higher Education by 27.5%, means that the satisfaction of Basic Safety Training of the participants is 27.5% due to the service and condition of infrastructure facilities implemented . While the rest of 72.5% influenced by other factors that are not researched.

B. Suggestions

From the results of the research discussion, conclusions and implications of the research as described above, the suggestions that can be submitted based on the results of this study are the following:

1. Increasing the quality of service contributes very large in forming customer satisfaction, so it needs a minimum service standard that must be obtained by the participants of Basic Safety Training of Jakarta Merchant Marine Higher Education., for example by employee training program, further study, remuneration and others.
2. The need to improve the maintenance of the infrastructure of Basic Safety Training of Jakarta Merchant Marine Higher Education. The condition of the excellent equipment will make it always ready to wear and make its life usage becomes durable. For example the procurement of new practice equipment, grease / lubricant for equipment that is often used.
3. The need for additional personnel and infrastructure facilities Basic Safety Training to accommodate the demand of training participants.
4. The need for support from the government, shipping companies, communities and various parties to always entrust the Basic Safety Training of Jakarta Merchant Marine Higher Education.
5. The need to improve the discipline of employees in working and obeying the rules that applied.
6. Graduation certificate management settings, to complete on time.
7. The Need for Customer Service in Sub Division of Seafarers Training Service.
8. Increased security during the training, as well as the guarantee of safety (Insurance).

BIBLIOGRAPHY

- [1] Abbas Salim, Manajemen Transportasi, Rajawali Pers, Jakarta: 2006.
- [2] Ali. 1996. Pengertian Saranadan Prasarana. Available At <http://delite20.wordpress.com/2009/11/05/pengertian-sarana-prasarana/>. (accessed 27/12/2011).
- [3] Arikunto, Suharsimi. 2002. Prosedur Penelitian. Jakarta: Rineka Cipta.
- [4] Arikunto, Suharsimi. 2006. Prosedur Penelitian Suatu Pendekatan Praktik. Jakarta: Rineka Cipta.
- [5] Bambang Prasetyo, Lina Miftahul Jannah, Metodologi Penelitian Kuantitatif, Rajawali Pers, Jakarta: 2007.
- [6] Gasperz. 2002. Saranadan Prasarana. Available At <http://delite20.wordpress.com/2009/11/05/pengertian-sarana-prasarana/>. (accessed 27/12/2011).
- [7] Husein Umar, Strategic Management in Action, Gramedia Pustaka Utama, Jakarta: 2005.
- [8] International Maritime Organization. STCW Amandemen. London: 1995.
- [9] International Maritime Organization. SOLAS. London: 1974.
- [10] Kotler, Philip dan A.B Susanto. Manajemen Pemasaran Jasa Di Indonesia, Analisis Perencanaan, Implementasi dan pengendalian (Edisi pertama). Salemba Empat. Jakarta: 2000.
- [11] Kasmir, Etika Customer Service, Rajawali Pers, Jakarta: 2006.
- [12] Marc J. Schniederjans, Just in Time Management, Allyn & Bacon, Massachusetts: 1993.
- [13] Michael J. Burton, Introduction to Transportation, Third Edition, London: 1985.
- [14] Nata Wirawan, Cara Mudah Memahami Statistik 2 (Statistik Inferensial) Untuk Ekonomidan Bisnis Edisi Kedua, Keraras Emas: 2002.
- [15] Ronald E. Walpoe, Pengantar Statistika, PT. Gramedia Pustaka Utama, Jakarta: 1995.
- [16] Schniederjans, Marc. J. Just-in Time Management. London: 1993.
- [17] Singgih Santoso, Panduan Lengkap Menguasai SPSS 16, Elex Media Komputindo, Jakarta: 2008.
- [18] Sudjana, Metoda Statistika, Edisi Keenam, Tarsito, Bandung: 1995.
- [19] Sugiyono, Metode Penelitian Kuantitatif, Kualitatif dan R & D, Alfabeta, Bandung: 2008.
- [20] Sugiyono. 2005. Statistika Untuk Penelitian. Bandung: Alfabeta.
- [21] Suharsimi Arikunto, Prosedur Penelitian (Suatu Pendekatan Praktek), Rineka Cipta, Jakarta: 2006.
- [22] Suteja, Wira. Panduan Layanan Konsumen Edisi Revisi, Grasindo: Jakarta, 2007.
- [23] Stewart. Whence Consumer Loyalty?. Journal of Marketing. 1983: vol.63.
- [24] Suardi. 2003. Pengembangan Perbankan. dalam Majalah Perbankan Edisi No. 106 Juli-September.
- [25] Tangking Wiarsa, I Komang, Biostatistik: Dasar Analisis Data Kesehatan, Program Studi Ilmu Kesehatan Masyarakat, Universitas Udayana, 2004.
- [26] Tjiptono, Fandy, Manajemen Jasa, Penerbit Andi, Yogyakarta: 2006.
- [27] Zeithaml, Valerie A. A. Parasuraman and Leonard L. Berry. Delivering Quality Service: Balancing Customer Perception and Expectation. The Free Press, New York: 1990.

Darul Prayogo. "Effect of Service Quality and Condition of Facilities & Infrastructure to Satisfaction Participants of Basic Safety Training." IOSR Journal Of Humanities And Social Science (IOSR-JHSS) 22.8 (2017): 12-18.