

CUSTOMER SATISFACTION ON MARITIME TERMINAL: CASE STUDY ON FERRY TERMINAL FACILITY AT MARINA ISLAND, PERAK.

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Abstract

Today, tourist destinations are rapidly becoming a popular destination for destinations like Marina Island. Marina Island is a ferry terminal which is frequented by locals as well as visitors. In the case considered on the ship terminal facility at Marina Island, Perak, customer service on the maritime terminal. The aim of this study was to identify the conditions facilities provided at Marina Island Jetty and to measure the relationship between customer satisfaction on Marina Island Jetty facilities. By using survey questionnaires, data from the passengers using Kuala Perlis ferry terminal has been collected and analysed. The questionnaire collects customers' demographics information, services information, facilities, and expectations from the facilities provider. This study aims to provide a valuable insight to an organization that operates the Marina Island terminal regarding customer satisfaction. A total of 105 questionnaires are collected and the data are analysed using Statistical Package for the Social Science (SPSS) to investigate the status of passenger satisfaction and to determine the relationship between terminal facilities and passenger satisfaction. The result found a strong relationship between the terminal facilities and customer satisfaction.

Keywords: *Ferry Terminal Facilities, customer satisfaction, relationship between customer satisfaction on Marina Island Jetty.*

INTRODUCTION

This study investigates the customer satisfaction on maritime terminal in terms of ship terminal facility at Marina Island, Perak. Ship terminal can be known as a structure in a harbour where ships and conceivably journey ships choose up and drop off travellers and vehicles. The customer satisfaction on maritime terminal can grant influence on the client which utilized the Marina Island Jetty. Impact of client fulfilment can aid pick up the increments of client for utilizing the Marina Island Jetty other than Lumut. This portion will cover foundation of ponder, issue explanation, objective of investigate, scope of inquire about and anticipated result.

This study conducted centered on customer satisfaction within the zone Marina Island Jetty, Perak. Marina Island is commonplace among neighbourhood and outside sightseers to Pangkor Island and as it were requiring 10 minutes. Marina Island Pangkor is built up on the coast of Teluk Muroh in Perak, Malaysia. A getaway to Pangkor Island, it may be a recovered arrive of 316.9 sections of land, associated to territory by a 400 meters causeway bridge. Generally, this think about will be giving ideal data for the administration of Marina Island Pier to centre encourage on client fulfilment. This ponder will moreover be ideal to the government specialist because it will advise them the level of client fulfilment toward the offices at Marina Island Wharf. Marina Island Wharf is an imperative goal in Perak for having goal in Pulau Pangkor. Pangkor is a vital goal in Perak and Malaysia for having an assortment of exercises that contribute to the national economy.

Problem Statement

The main issue faced by Marina Island Ferry Terminal is lack of facilities provided by the management. The issue that had been faced such as lack of signage information. Next, lack of entertainment facilities one of the issues too. These facilities effect the customer satisfaction that involve at Marina Island Ferry Terminal. Customer dissatisfied with the facilities that are provided at the terminal. (Ibrahim and Ahmad, 2008). According to Serap et. al. (2017) Passenger ferries associated with various problems, including the overloaded passenger, confusing route to catch,

uncomfortable seats, uncomfortable surrounding, and the smell of smoke that affects the breathing. According to Zakaria et. al. (2018), the most common problems face at ferry terminal are traffic congestion and lack of safe parking spaces for vehicles. According to Anuar et. al. (2016), customer also encounter problems like such as security and safety, responsiveness, and reliability.

Research Objective

The aim of this research is to study the level of customer satisfaction towards the services offered at the Marina Island ferry terminal. The research objective is to identify the conditions of the facilities provided at Marina Island Jetty and to measure the relationship between customer satisfaction and the quality of facilities provided at the Marina Island Jetty.

Research Question

Based on the research objectives, the following research questions have been identified:

- i. What are the current conditions of the facilities provided at the Marina Island Jetty ferry terminal?
- ii. What is the relationship between customer satisfaction and the quality of the facilities provided at the Marina Island Jetty?

Significance of Study

The main thing to think about this study will also give benefit to the Marina Island management as they can use the information of customer satisfaction to improve the facilities. In addition, Malaysia's economy should be increased to build the country's development. Next, the management of the ferry terminal at Marina Island can obtain more information to focus on customer satisfaction to be used for further improvement. Customers will be satisfied with the management and services that have been provided. It will provide more information about Marina Island ferry terminals and can be as a reference to future researchers.

LITERATURE REVIEW

Marine Terminal

Marine terminals essentially outline a bit of the harbour where stock and payload can be stacked into a ship and be released from a ship, when it goes to the harbour (Fah & Kandasamy, 2011). Marine terminals are especially unmistakable and shape an imperative require with respect to the stacking portion (Arof & Awis Khadzi, 2018). The harbour is an amazingly active spot. In any case, it must be noticed that a marine terminal is not an unmistakable station for the vessels. The most common reason why marine terminals are kept isolated from the rest of the port or port is Raunek (2016). This setting aside a partitioned array ensures that the method of stacking and offloading is placed in a constant and idealized manner.

It must be noted that marine ports are also known as docks (used for larger ships) and wharfs (when ships of smaller sizes are loaded). Another important proximity in such marine terminals is the individuals who are aware of the marine terminal's smooth functioning. The professionals who assist with the whole material pulling and emptying practice round - the-clock work and form energetically beyond any doubt that there are no blunders at all. We are careful and competent experts that make building these marine terminals with their products and cargo less daunting for companies and customers (Raunek, 2016).

Customer Satisfaction

Customer satisfaction (usually abbreviated as CSAT, more specifically CSat) may well be a term that is used routinely to encourage. It can be a degree of how a company's items and organizations reach and exceed consumer craving. Customer satisfaction is defined as "the number of customers or the level of inclusion up to customers whose point-by-point inclusion with a product, its items or its organizations (assessments) outperforms customer satisfaction objectives. Severt et al. (2007) defines tourist satisfaction as the degree of the tourist's satisfaction delight which happened from the trip encounter approximately an item or benefit include that fulfils the tourist's wants, desires, and needs in affiliation with the trip.

In this think about, customer satisfaction is conceptualized as the ferry passenger’s perception in terms of comfort, client care administrations, level of technology used, unwavering quality and security to meet their desires in transportation administrations. Concurring with Barid (2012), in arrange to satisfy customers, firms within the benefit businesses must have enough information approximately customers’ desire, particularly in a circumstance where generation and utilization of administrations are run at the same time.

Terminal Facilities

Marina Island terminal jetties are most prevalent based on the partitioned and brought are required for those heading to the Pulau Pangkor considered as one of the foremost prevalent goal for traveller and here, traveller can be alluded as clients to keep ship terminal in Marina Island Jetty. A few sorts of inquire about related to the client fulfilment level with the offices. The most excellent offices and accessibility of framework can be brought up as to one of the components that would bear on the advancement of tourism.

Concurring to Soumyajit Dasgupta (2019) the harbour can be a common foundation or manufactured development, which gives a put for the stacking and emptying of cargo. Ports can be for huge seagoing ships additionally for inland conduits such as streams and lakes. The profundity of the ports plays an imperative part in permitting different sorts of ships to enter and dock at the port. But these days alongside its essential reason, a harbour is prepared with certain other comforts and offices. Distinctive sorts of ports are prepared with distinctive harbour offices (Soumyajit Dasgupta, 2019).

METHODOLOGY

Likert Scale

The respondents may consider responses to the option to be acceptable in their own viewpoint. Such summary scales or subscales must be used to analyse the information at that level, instead of just individual items. A Likert scale example used in the questionnaire can be seen in the following figure:

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
(1)	(2)	(3)	(4)	(5)

Close Ended-Question

Close ended questions are defined as question types that ask respondents to choose from a distinct set of pre-defined responses, such as “yes/no” or among a set multiple choice question. In a typical scenario, closed-ended questions are used to gather quantitative data from respondents. Close-ended questions come in a multitude of forms but are defined by their need to have explicit options for a respondent to select from.

Pilot Test

Pilot Testing is defined as a type of Software Testing that verifies a component of the system or the entire system under a real-time operating condition. The purpose of the Pilot Test is to evaluate the feasibility, time, cost, risk, and performance of a research project. In Pilot testing, a selected group of end users try the system under test and provide the feedback before the full deployment of the system. In other words, it means to conduct a dress rehearsal for the usability test that follows. Pilot Testing helps in early detection of bugs in the System. In this research, 20 respondents have been chosen for pilot test at the ferry terminal Marina Island Jetty.

Analysis

A systematic review and examination of data or information by splitting it into its component parts to reveal their interrelationships by analysing data and facts in order to expose and appreciate the relationships between cause and effect, thereby providing the basis for problem solving and decision making.

Statistical Package for the Social Sciences (SPSS)

SPSS is an easy-to-use package that is reasonably comprehensive. By using the SPSS program, the researcher is able to perform complex analyses from a number of perspectives rather than just talking about complex processes, but measuring simple relationships and can easily check a variety of alternative causes and correlates, as well as taking endless alternatives to our data views.

RESULTS AND DISCUSSION

Reliability Analysis

Table 1: Reliability Statistic

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.856	.877	38

the same set of instruments was given to the 20 pilots. Research using Cronbach Alpha showed that this structure yielded a high Coefficient Alpha rating, .856, based on the answers to the questionnaire distributed and received from 20 respondents. This means that the method used is highly effective and efficient and can provide more accurate and reliable results.

Descriptive Analysis

Table 2: Descriptive Statistics

Descriptive Statistics				
	N	Mean	Std. Deviation	Variance
Age	105	2.305	.7484	.560
Gender	105	1.533	.5013	.251
Race	105	1.362	.7088	.502
Current status	105	1.952	1.3256	1.757
Valid N (listwise)	105			

This survey involved 105 respondents that participated is 105 that majority all of they are working as a customer. This part from questionnaire form contains the question that about their personal information. Table 4.1 shows the whole analysis about the question at Part A of the questionnaire.

Pearson Correlation Analysis

Table 3: Correlation Coefficient

Correlations						
		Data.Informa tion	Facilities	Cleanlines s	Safety	Satisfactio n
Data.Informati on	Pearson Correlation	1	.683**	.537**	.566**	.683**
	Sig. (2- tailed)		.000	.000	.000	.000
	N	105	105	105	105	105
Facilities	Pearson Correlation	.683**	1	.857**	.607**	.785**
	Sig. (2- tailed)	.000		.000	.000	.000
	N	105	105	105	105	105
Cleanliness	Pearson Correlation	.537**	.857**	1	.447**	.723**
	Sig. (2- tailed)	.000	.000		.000	.000
	N	105	105	105	105	105
Safety	Pearson Correlation	.566**	.607**	.447**	1	.523**
	Sig. (2- tailed)	.000	.000	.000		.000
	N	105	105	105	105	105
Satisfaction	Pearson Correlation	.683**	.785**	.723**	.523**	1
	Sig. (2- tailed)	.000	.000	.000	.000	
	N	105	105	105	105	105

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows the degree of association for two variables, which are independent variable and dependent variable. From the data, jetty facilities and customer service were the independent variables while customer satisfaction acts as a dependent variable. The correlation coefficient is at least -1 and the largest value is 1. If 0, then there is no correlation at all while correlation 1 means a perfect correlation. This means that if it is closer to 1 or -1, the relationship between two variables is strong. In fact, this can be a simple guide, that a correlation number above 0.5 indicates a strong correlation and below 0.5 indicates a weak correlation. Based on Table 4.25, the ferry terminal (jetty) facilities have the highest value of p that is 0.680 and it is closed to 1.

One of the objectives of this study is to identify the conditions of the facilities at Marina Island Jetty and to measure the level of customer satisfaction towards the facilities that had been provided at Marina Island. Using the

Pearson correlation coefficient method, analysis of 105 respondents reveal that there was a positive relationship between conditions of the facilities and level of customer satisfaction. For the results of correlations coefficient 0.683 for Data information, for facilities is 0.785 while for cleanliness is 0.723 and lastly the safety is 0.523. All the result show that the relationship between the elements and the satisfaction is moderate (safety) and strong (data information, facilities, and cleanliness). But the highest relationship between element facilities and cleanliness.

A hypothesis has stated with the H null and H alternatives:

H0: There is no significant the facilities condition and level of customer satisfaction.

H1: There is significant the facilities condition and level of customer satisfaction. (claim)

CONCLUSION

Based on the results from this study, most passengers were satisfied with the facilities at the ferry terminal. The ferry terminal management should provide more data information for customers. On the other hand, it can be concluded that consumer loyalty and efficiency are closely linked. This can be seen from the table on paired sample t-Test for analysis objective 1. This can be seen from the table correlation analysis findings for dependent variable by using Pearson correlation for analysis objective 2. This research introduces the customer satisfaction concept, and the importance of measuring it.

REFERENCES

- [1] Abdullah, S., Razak, A. A., Marzuki, A., & Jaafar, M. (2017). Assessing tourist satisfaction with the facilities provided at Langkawi island gateway jetty terminals. *Liburna*, 2(1).
- [2] Kusnopranto, H., Taruna, W., & Utomo, S. W. (2017). Health, Safety, Security and Environment (HSSE) Perception at the Ferry Port Terminal: A case study at Merak, Banten Province, Indonesia. *Asian Journal of Applied Sciences*, 5(01).
- [3] Zachary, G., Tinali, P., & Temba, G. M. (2017). Ferry Passengers' Satisfaction: An Empirical Assessment of Influence of Ferry Route Type. *ORSEA JOURNAL*, 5(2).
- [4] Filina-Dawidowicz, L., & Gajewska, T. (2018). Customer satisfaction in the field of comprehensive service of refrigerated containers in seaports. *Periodica Polytechnica Transportation Engineering*, 46(3), 151-157.
- [5] Ustadi, M. N., & Shopi, N. A. M. (2015). A Study towards Implementation of Public Hub Transportation: A Case Study of Penang Central. *Journal of Transport System Engineering*, 2(1), 1-6.
- [6] Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of cardiac anaesthesia*, 22(1), 67.
- [7] Anuar, M. H. A., Amiruddin, N. A., Pillai, D. V., & Zainuddin, N. (2017). Customer's satisfaction at Langkawi ferry terminal.
- [8] Yadav, M. K., & Rai, A. K. (2019). An Assessment of the Mediating Effect of Customer Satisfaction on the Relationship Between Service Quality and Customer Loyalty. *The IUP Journal of Marketing Management*, 07-23.
- [9] Zakaria, A., Nasir, M. F., Nasir, N. A., Shafie, R., Azila Ayub, Mazlan, N., & Suhainai, N. H. (2018). A Study on Passenger Satisfaction Towards Ferry Service Operated at Kuala Perlis. *Marine Frontier@ UniKL MIMET*, 18-20.
- [10] Gao, L., Yu, Y., & Liang, W. (2016). Public Transit Customer Satisfaction Dimensions Discovery from Online Reviews. *Urban Rail Transit*, 146-152.

- [11] Marissa, Y., Iqbal, M. M., & Juliantina, I. (2019, April). Analyze of Tanjung Api-Api Ferry Port Service Performance South Sumatera, Indonesia. In *Journal of Physics: Conference Series* (Vol. 1198, No. 8, p. 082002). IOP Publishing