

Conference Paper

The Effect of Loading and Unloading Speed on the Quality of Transportation Services

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Abstract

This paper is about the factors that affect customer satisfaction with regards to loading and unloading services. This study analyzes the loading and unloading service speed factors, facilities and equipment, and employee care (empathy) to customer satisfaction. The factors are used in determining the quality of transportation services to the community so that it is known whether the loading and unloading has been carried out optimally or not. And it can be improved for further transportation service improvements.

Keywords: Loading and Unloading Service; Speed; Facilities.

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1. Introduction

In Indonesian, there are terms related to the meaning of port, namely *Bandar* and port. The two terms are often mixed up so that some people mean the same thing. Actually the meaning of the two terms is different. *Bandar* (harbor) is an area of water that is protected against waves and wind for the berthing of ships. Port is a water area that is protected against waves, which is equipped with sea terminal facilities, including a dock where ships can moor for loading and unloading goods, cranes for loading and unloading goods, marine warehouses (transit) and storage places where the ship unloads its cargo. From the description above it can be concluded that the port is a port equipped with buildings for cargo and passenger services such as mooring piers, with all the equipment. So a port is also a port, but a port is not necessarily a port.

Port Function A port is essentially a chain in the delivery of transportation to/from the interior connecting shared transportation facilities with sea transportation. Thus, ports do not only function as terminal points but also as centers of transit activities. In the marine transportation system in Indonesia, ports have a very influential role in determining the productivity level of sea transportation, especially for domestic shipping. The number of such ports is around 1. 200 ports scattered throughout the

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archipelago which are so vast in relatively short distances from one port to another with different levels of technical facilities. Port facilities generally consist of facilities on land (docks, warehouses, open yards, loading and unloading equipment, etc.) and water facilities, such as tugs, barges, floating loading equipment and others.

In a complete port, there are also facilities for supplying fuel for ships, docking facilities, repair and ship building. Port is a place consisting of land or waters with certain boundaries as a place for government activities and 14 business activities that are used as a place for ships to dock.

2. Research Methods

As a scientific research, if it fulfills the elements that include, this activity is a scientific activity, an activity based on certain methods, systems and thoughts. Done by searching for data. There are two sources of data in this research, namely primary data and secondary data. (Ferdinand, Augusty. (2014). *Management Research Methods. Research Guidelines for Writing Thesis, Thesis and Economics Dissertation*. Semarang: Diponegoro University Publishing Agency) Primary data is obtained from direct data collection through questionnaires, using a Likert scale. Secondary data is obtained from company archives and documents, journals, articles, internet, by asking the ship passengers to the satisfaction of the services provided, especially in terms of loading and unloading so that the data is obtained. The data used in this paper is to ask the customer to fill in the community's satisfaction with time, the tools used and the safety in the loading and unloading process itself. This research is a scientific activity, which is based on certain methods, systematics, and thinking, which aims to study and achieve one result by analyzing it and is carried out by looking at several aspects in the field and then looking for strengths and weaknesses in these various aspects and find them. The result whether there is public satisfaction with the loading and unloading service of the ship (Arianto, N. (2017). *The Influence of Service Quality, Price and Satisfaction on Patient Loyalty (Case Study of Outpatients of Premier Bintaro Hospital)*. *Journal of Organization and Management*, 13 (1), 1-9. Retrieved from <http://jurnal.ut.ac.id/index.php/JOM/article/view/145>).

3. Results and Discussion

Transportation is the transfer of people or goods by means of vehicles driven by humans or machines. Transportation is used to make it easier for humans to carry out their daily

activities. Many experts have formulated and put forward the meaning of transportation. The experts have their respective views which have differences and similarities between one another. The word transportation comes from the Latin *transportare* which means to lift or carry. So transportation is carrying something from one place to another.

The definition of transportation according to several experts:

1. According to Salim (2000) transportation is the activity of moving goods (cargo) and passengers from one place to another. In transportation, there are two most important elements, namely the movement and physically changing the place of goods (commodities) and passengers to other places.
2. According to Miro (2005) transportation can be defined as an effort to move, move, transport, or divert an object from one place to another, where in other places the object is more useful or can be useful for certain purposes. What support devices are used to carry out this moving, moving, transporting and transfer process may vary depending on:
 - The shape of the object to be moved.
 - The distance from one place to another.
 - The purpose of the object to be moved.

This means, the supporting tools used for the moving process must match and match the object, distance and object's intent, both in terms of quantity and quality. So the notion of transportation means a process, namely the process of moving, the process of moving, the process of transporting, and diverting where this process cannot be separated from the need for supporting tools to ensure the smooth process of moving according to the desired time.

Some definitions related to movement and travel according to Ortuzar and Willumen (2011) are as follows:

1. Travel is defined as a one-way movement from the point of origin to the point of destination. Usually prioritized for movement using motorized vehicles.
2. Home-Based Movement, which is a movement that shows that the traveler's house is the origin and destination of the movement.
3. Non Home-Based Movements, namely movements that show that the end of the movement is not the home of the perpetrator.
4. Movement production (Trip Production), defined as the origin and destination of a home-based movement or as the origin of a non-home-based journey

5. Trip Attraction, defined as the end not a home for a Home-Based movement or as the goal of a Non Home-Based movement
6. Trip Generation is the total number of movements generated by households in a zone, both Home-Based and Non-Home-Based.

Travel is the movement of a direction from the origin zone to the destination zone, including walking movements. Accidental stopping is not considered the destination of the movement even if it is forced to make a change of route. Although it is often interpreted as a round trip and return movement, in transportation science usually the two analyzes must be separated.

Tamin (2000) argues that there are 5 categories of residence-based movement objectives, namely:

1. Movement to work
2. Movement to school or campus (movement with educational goals)
3. Movement to shopping center
4. Movement for social interests
5. Movement for recreational purposes.

The purpose of the work and education movement is the main movement goal which is a must for everyone to do every day, while the other movement goals are optional and not routinely carried out.

Transportation Management Function According to Andriansyah (2015) transportation has a function to support economic development by making a balance between transportation supply and demand. The benefits of transportation include people's lives, namely:

1. Economic Benefits Everything related to the production, distribution and exchange of wealth or production results which can be obtained and useful.
2. Social Benefits Humans generally live in society and try to live in harmony or with others by using the convenience of:
 - (a) Services for individuals and groups,
 - (b) Exchange of information,
 - (c) Travel for recreation.

- (d) Expansion of the reach of social travel, and
 - (e) Shortening the distance between home and work.
3. The political benefits of transportation are an absolute or basic requirement in a political perspective which includes:
- (a) Creating unity and justice,
 - (b) Services to the community are developed more equitably
 - (c) State security against unwanted attacks from outside Area Benefits - The development of a region, due to the nature of human demand for demand and fulfillment, has an economic aspect.

4. Customer Satisfaction

Satisfaction is a person's feelings that arise after comparing the performance (results) obtained against the expected performance (results). These feelings can be in the form of feeling happy or disappointed. Indicators of customer satisfaction include: (Aryani, Dwi & Febrina Rosinta. (2010). Effect of Service Quality on Customer Satisfaction in Forming Customer Loyalty. *Business & Bureaucracy. Journal of Administration and Organization* 17 (2): 114–26) satisfied from the customer, the customer will always use the company's services, the customer will recommend to other people or companies, and the fulfillment of customer desires/expectations. (Hadiyati, Ernani. (2014). Service Quality and Performance of Public Sector: Study on Immigration Office in Indonesia. *International Journal of Marketing Studies*, 6 (6): 104–18. doi: 10.5539/ijms.v6n6p104)

Customer satisfaction is influenced by service quality. Customer satisfaction is basically related to the level of a person's feelings, after comparing perceived performance or results with expectations. The indicator that can be used to describe customer satisfaction is whether the consumer will buy back and use the product/service in the future. Satisfaction is a feeling of pleasure or disappointment for someone who arises after comparing perceptions or impressions of the performance or results of a product and its expectations. (Giovanis, Apostolos N., Dimitris Zondiros, & Petros Tomaras. (2014). The Antecedents of Customer Loyalty for Broadband Services: The Role of Service Quality, Emotional Satisfaction and Corporate Image. *Procedia-Social and Behavioral Sciences* 148. Elsevier BV: 236–44. doi: 10.1016/j.sbspro.2014.07.039)

The definition of loading and unloading according to Gianto et al in the book "Seaport Operations" (1999: 31-32), is as follows: Unloading is the work of unloading goods from the deck or hold of a ship and placing it on a dock or in a warehouse.

Loading is the job of loading goods from the dock or in a warehouse to be loaded in the warehouse. Loading and unloading is a shipping activity to load or unload a cargo from a dock, barge, truck into the hold or deck, using cranes and pulleys on ships or land or by other unloading tools, where goods are transferred to and from the ship.

According to Istopo in the book "Ships and their Cargoes" (1999: 170), loading and unloading is the placement or transfer of cargo from land to ship or vice versa, moving the cargo from the ship to the port of destination.

According to Dirk Koleangan (2008: 241) in a book entitled "Container System", the definition of loading and unloading activities is as follows:

The loading and unloading activity is the activity of moving goods from land transportation means, and to carry out the activity of moving the cargo, it is necessary to have adequate facilities or equipment in a shipping method or procedure.

Based on the definition described above, loading and unloading is a process of loading and unloading by transferring cargo from land to ship or from ship to land which is carried or transported to its destination safely and in a place carried out according to procedures at the port by ship crews and parties.

According to RPSuyono, the loading and unloading procedure starts from preparing the loading/unloading documents, namely: (Anfas, A., & Zainuddin, Z. (2018). Swot Implementation in Educational Institutions in Increasing the Gross Enrollment Rate. *Journal of Organization and Management*, 14 (1), 82-93. doi: 10.20885/vol14ino1pp82-93)

1. Loading documents

- (a) Bill of Lading which is also called a bill of lading, for the carrier is a contract of transport as well as proof of receipt.
- (b) Cargo List is a list of all cargoes to be loaded on board. Cargo List is made by shipping companies or their agents which are submitted to all parties related to loading, namely ships, stevedoring, warehouses and other parties.
- (c) A loading tally is that all goods loaded onto the ship are recorded in a tally sheet, a tally sheet is also made to record all unloaded goods. The tally sheet must also be signed by the officer who notes it must also be countersigned by the ship's officer, there may be a dispute of the existing cargo.
- (d) Mate's Receipt is a receipt that will be loaded onto the ship. Mate's receipt is made by the shipping agent and signed by the ship's officer. e. Stowage Plane is a description of the layout and arrangement of all goods loaded onto the ship. For containers, a stowage plan is called a bayplan, a stowage plan

is made by a ship officer or a tally officer, while a bayplan is made by a ship planner.

2. Unloading documents

- (a) The loading tally is a record of the number of collies and their condition against the unloaded goods. The tally sheet must be countersigned by the skipper or authorized officer.
- (b) Outurn Report is a list of all goods by recording their colli and condition at the time of unloading. Items which are less in quantity or damaged are marked with a remark on the outurn report.
- (c) Damaged Cargolist, which is specifically for items that have suffered damage, they make their own list.
- (d) Cargo Manifest is a detailed description of the goods carried by the ship.
- (e) Dangerous Cargo is a list of dangerous cargo either established by IMO or stipulated by the authorized official at the port.

After the documents required for loading/unloading containers have been completed then prepare the container loading/unloading mechanism tools, as for the container loading/unloading tools including: (Anggraini, Wahyu Setia, Andi Tri Haryono, & Leonardo Budi Hasiolan. (2016). Influence of Customer Relationship Marketing, Service Quality and Corporate Image of The Customer Retention Graha Candi Golf Semarang (With Satisfaction as an Intervening Variable). *Journal of Management*, 2 (2))

- a. Gantry crane/port crane is a crane to unload containers from the ship onto the chassis on the hull side or vice versa from the hull side of the ship onto the ship.
- b. Forklyft is a tool for stuffing/stripping in CFS. It can also be used to lift on/lift off empty containers in CFS.
- c. Traylor (chassis) consists of chassis and head truck for haulage or container trucking activities.
- d. Spreader is a tool that is installed on the crane, top leader, super tracker to handle containers.

Based on the results of the regression analysis, empathy has the greatest influence in increasing customer satisfaction, so it is necessary to pay attention to increasing attention to customers, providing convenience in the service process, and always serving with sincerity. While the second order that affects customer satisfaction is the completeness of loading and unloading facilities, it is necessary to pay attention to the completeness of the loading and unloading facilities and equipment owned, so

that the implementation of loading and unloading services on the customer will further increase according to customer expectations. Loading and unloading speed ranks last in increasing customer satisfaction. Customers always expect the loading and unloading process to be carried out quickly, on time and safely. This loading and unloading process speed can reduce costs caused by long waiting times, so that this will be more profitable for customers, such as Shipping Companies, Sea Freight Forwarding (EMKL), Freight Forwarding (FF), and Loading and Unloading Companies (PBM). The greatest customer satisfaction is influenced by the empathy of officers in providing services to customers, followed by complete and adequate loading and unloading equipment facilities, supported by the speed of the loading and unloading process carried out.

4. Conclusion

Ship loading and unloading activities can be assessed by 4 variables, namely the empathy of the workers so that customers are satisfied with the performance of the services provided. And the completeness of the tools used is included in the satisfaction assessment because it affects the loading and unloading speed. From this paper it is known that what affects the satisfaction assessment of loading and unloading activities, namely: worker empathy, facility tools used, the speed of time, and security in the loading and unloading process.

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