

THE EFFECTIVENESS OF GROUND TRANSPORTATION MODES ON THE SMOOTH FLOW OF CONTAINER TRAFFIC IN CARGO SHIPMENTS AT PT BERKAH MULTI CARGO LOGISTICS

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Abstract

This research examines the influence of ground transportation modes on the smooth flow of container traffic at PT Berkah Multi Cargo Logistics. Utilizing both qualitative and quantitative methods, data was collected from various sources including literature reviews, interviews, and company records. The study identifies several factors contributing to the inefficiency of ground transportation modes, including inadequate fleet conditions, infrastructure limitations, and human resource constraints. Additionally, the research highlights the consequences of these inefficiencies, such as delayed deliveries leading to financial losses for consignees, increased costs for consumers, and operational losses for the company. Despite efforts to adhere to company standards, the study suggests that improvements in ground transportation modes and infrastructure are necessary to enhance the efficiency of container traffic flow and mitigate associated challenges.

Keywords

Container traffic flow; ground transportation modes; operational challenges; transportation inefficiencies

INTRODUCTION

In the implementation of shipping activities, transportation is one of the most important aspects. Ground transportation is the most commonly used mode of transportation in Indonesia today. To support the smooth running of shipping activities using ground transportation modes, the application of cargo or goods transportation systems using containers has a significant impact on the smoothness of shipping activities. Containers, also commonly referred to as shipping containers, are specially designed packaging of specific sizes to protect cargo or goods from damage and are not meant for one-time use only. These containers are used to store and transport cargo or goods belonging to the shipper. They have their own advantages, namely being usable across various modes of transportation such as trucks, trains, ships, and so on, making containers the choice device for efficient and safe cargo transportation (Anish, 2022).

The planning of cargo transportation using containers that will be loaded onto trucks must be carefully prepared. In the process of loading cargo into containers, there are often obstacles, such as errors in container size or type, which need to be promptly addressed. Actions to handle cargo transportation through containers that need to be taken include operational personnel checking the condition of containers to ensure that the type and size match the specifications provided by the shipper (Ginting et al., 2021). Ground transportation is one of the modes of transportation used by PT Berkah Multi Cargo Logistics in cargo and goods transportation using containers. This writing aims to provide an overview of the impact or influence of the smooth flow of containers from the use of ground transportation in the shipments that occur at PT Berkah Multi Cargo Logistics.

Despite its critical role, PT Berkah Multi Cargo Logistics faces significant challenges related to vehicle availability and condition, and service quality. The company often struggles with an insufficient number of vehicles to meet transportation demands, leading to frequent delays in shipment schedules. Additionally, the existing fleet is sometimes poorly maintained, resulting in breakdowns and reduced reliability. These issues not only slow down operations but also increase maintenance costs and disrupt the overall efficiency of the transportation process (Maressa, 2021).

Moreover, the quality of service provided by ground transportation plays a crucial role in the logistics chain. Inconsistent delivery times and safety concerns can severely impact the smooth flow of container traffic. When service providers fail to deliver goods on time or in good condition, it not only leads to financial losses for the company and its clients but also damages the company's reputation. Ensuring reliable, timely, and safe delivery is essential for maintaining customer satisfaction and operational efficiency at PT Berkah Multi Cargo Logistics (Widyawati et al., 2020).

LITERATURE REVIEW

Ground Transportation

Transportation is a process of conveying or moving people, animals, or goods from one place to another using a vehicle or conveyance propelled by humans or machinery. Transportation itself is divided into three parts: land transportation, air transportation, and maritime transportation. Ground transportation in general encompasses all forms of vehicles that use roads to transport or move people, animals, or goods (Maressa, 2021).

Ground transportation is the predominant mode of transportation used by the majority of people in Indonesia. In terms of its functions, ground transportation serves two purposes: facilitating the flow of human and goods movement and supporting development (Herlambang, Fatonah, & Habibi, 2021).

Goods Shipment

Shipping is an integral part of the logistics sector. Shipping is the operational activity of distributing goods and services from manufacturers to consumers. The activity of shipping goods is commonly encountered in daily life. As the name suggests, shipping is the process of transferring a product from the manufacturer to the consumer. The benefits of shipping, based on the definition above, involve transferring ownership of a product. Typically, manufacturers are unable to handle shipping activities on their own. Manufacturers usually opt to use shipping service providers to deliver their goods to consumers.

Container

The definition of a container, or shipping container, is a rectangular box or crate that meets technical specifications according to ISO standards and is used as a device for lifting and storing a quantity of cargo or goods. Containers are useful for protecting goods and cargo from loss and damage. They can be used across various modes of transportation and can be detached from the transportation device being used. Containers are specifically designed to be reusable and able to withstand both hot and cold weather conditions (Anish, 2022).

METHODS

Research Approach

In this study, the approach employed utilizes the qualitative approach method. The qualitative approach refers to data and information that are in the form of verbal sentences rather than symbols, numbers, or figures. According to Bogdan and Taylor, as cited by Moleong, qualitative research involves a process that yields descriptive data, including written or spoken words from individuals and their observable behaviors (Moleong, 2012). These data are obtained through a process that employs analytical techniques.

The approach using qualitative methods aims to develop concepts of relationships between ground transportation modes and the smooth flow of containers, as well as the issues that arise. By employing qualitative methods as the research approach, the author will elucidate information regarding the effectiveness of using ground transportation modes on the smooth flow of

containers within PT Berkah Multi Cargo Logistics. This study will also outline the factors that have influenced these relationships and their impacts on PT Berkah Multi Cargo Logistics.

Data Source

Primary data consists of information collected directly by the researcher from key participants or at the specific location where the research is being conducted. In this study, primary data was gathered through interviews with three informants who hold relevant positions within PT Berkah Multi Cargo Logistics, focusing on the relationship between ground transportation modes and the smooth flow of containers.

Secondary data, on the other hand, includes information that has been generated or published by external sources rather than the researcher or primary participants. This type of data is typically obtained from articles, journals, and websites related to the research topic. In this study, secondary data sources include various publications and online resources that provide context and additional insights into the research being conducted.

Data Collection Method

To obtain the desired data relevant to the issues addressed in this writing, the methods used in data collection are:

1. Literature Review Method: The literature review method is one of the important methods when conducting research writing. A literature review involves searching for and collecting information or materials obtained from various sources about the research subject.
2. Observation Method: Observation is a complex process. It involves direct monitoring of a research subject using all sensory organs to gather detailed and accurate information about the subject's behaviors and interactions.
3. Interview Method: The interview method involves directly questioning individuals who are knowledgeable about the research topic. In this study, interviews were conducted with three informants holding relevant positions within PT Berkah Multi Cargo Logistics to gain insights into the relationship between ground transportation modes and the smooth flow of containers.

RESULT AND DISCUSSION

Factors Influencing Ground Transportation Modes and Container Traffic Efficiency at PT Berkah Multi Cargo Logistics

PT Berkah Multi Cargo Logistics is a logistics company specializing in container management. According to the research findings, the relationship between ground transportation modes and the smooth flow of container traffic does not have a significant impact. This is because the ground transportation modes used are still in line with the company's standards. As a result, they do not affect the smooth flow of container traffic.

Here are some factors that influence ground transportation modes on the smooth flow of container traffic at PT. Berkah Multi Cargo Logistics:

1. **Infrastructure Condition:** The availability of good and suitable roads and supporting infrastructure for ground transportation will affect the smooth flow of container traffic. The primary infrastructure traversed by ground transportation modes is roads. As known, the condition of roads in Indonesia, especially those leading to container terminals, is still inadequate. Many roads around these areas have potholes, are damaged, and are uneven. Additionally, the high number of traffic jams around the container terminal area disrupts the fleet's pace.
2. **Vehicle Availability:** In cargo transportation activities, delays in fleet movement often occur due to traffic jams or vehicle breakdowns on the road. Issues like these can hinder the smooth flow of container traffic that could be used. This will also result in decreased productivity for the company.
3. **Service Quality:** The quality of service provided by ground transportation service providers, including delivery time, reliability, and safety of delivery, will affect the smooth flow of container traffic.
4. **Weather and Traffic Conditions:** External factors such as weather and traffic conditions can affect the performance of ground transportation and ultimately influence the smooth flow of container traffic.
5. **Logistics Management:** Efficiency in logistics management, including route planning, scheduling arrangements, and coordination among various stakeholders, will impact the smooth flow of container traffic through ground transportation.
6. **Policies and Regulations:** Policies and regulations related to ground transportation, including operational permits, tariffs, and cargo transportation rules, will affect the operational procedures and performance of ground transportation and ultimately the smooth flow of container traffic.

Effects of Ground Transportation Modes on Container Traffic Flow and Stakeholders at PT Berkah Multi Cargo Logistics

The ground transportation mode certainly influences the smooth flow of container traffic at PT Berkah Multi Cargo Logistics, although not significantly because the transportation modes used are still inadequate as they comply with the standards set by the company. Furthermore, the relationship between ground transportation modes and the smooth flow of container traffic also impacts PT Berkah Multi Cargo Logistics. The resulting impact is not only directed towards the company itself, but also affects other parties, including:

1. Impact on cosignee (goods owner):

Delay in delivery can have significant ramifications throughout the supply chain, disrupting production processes and delaying the delivery of final products to customers. When shipments are delayed, it can disrupt the smooth flow of operations within the supply chain,

leading to production slowdowns or halts. For example, if crucial raw materials or components do not arrive on time, it can impede manufacturing activities, causing delays in production. These delays can cascade down the supply chain, affecting inventory management, production schedules, and ultimately delaying the delivery of finished products to customers. Additionally, delays in delivery pose an increased risk of damage or loss of goods. Extended transit times expose goods to various risks, including mishandling, theft, or damage due to adverse environmental conditions. Perishable or time-sensitive goods are particularly vulnerable, as delays can lead to spoilage or expiration, resulting in losses for both suppliers and customers. Therefore, efficient logistics management is crucial to minimize delays and ensure the timely and safe delivery of goods, maintaining customer satisfaction and the smooth functioning of the supply chain.

2. Impact on consumers

Delays in delivery can significantly impact consumer satisfaction, particularly when desired products are not available on time. Customers rely on timely deliveries to meet their needs and expectations, and delays can lead to frustration and disappointment. Whether it's waiting for a package to arrive for a special occasion or needing essential items for daily use, delays can disrupt consumer plans and expectations, ultimately leading to dissatisfaction with the overall shopping experience. Additionally, delayed deliveries may result in customers seeking alternative sources for their needs, potentially leading to lost sales and a tarnished brand reputation if the delays become recurrent or widespread.

Moreover, delay or uncertainty in delivery can disrupt consumer plans or schedules, further exacerbating the negative impact on customer experience. Customers often plan their activities around expected delivery dates, whether it's scheduling time to be at home to receive a package or planning events or activities based on product arrival. When deliveries are delayed or the delivery timeframe is uncertain, it can disrupt these plans, causing inconvenience and frustration for customers. This disruption not only affects individual consumers but can also impact businesses that rely on timely deliveries to fulfill their commitments and obligations to their customers. Therefore, ensuring reliable and timely delivery services is essential for maintaining customer satisfaction and loyalty.

3. Impact on the company

Delays in delivery can incur additional costs for companies, contributing to financial strain and operational inefficiencies. For instance, when shipments are delayed, companies may incur warehouse fees for storing goods longer than anticipated. Additionally, to rectify the situation and expedite delivery, companies may need to incur additional costs for expedited shipping services or transportation fees. These unexpected expenses can impact profit margins and strain financial resources, especially if delays occur frequently or on a large scale.

Furthermore, delays in delivery may lead to lost sales opportunities or penalties for failing to meet contractual delivery commitments, further exacerbating the financial impact on the company.

Moreover, uncertainty in delivery can disrupt the company's supply chain planning and management, leading to operational challenges and inefficiencies. When delivery schedules are uncertain or unreliable, it becomes challenging for companies to plan and manage their inventory effectively. Uncertain delivery times may result in overstocking or understocking of inventory, leading to increased carrying costs or stockouts. Additionally, difficulties in forecasting demand and coordinating production schedules with uncertain delivery timelines can lead to production inefficiencies and increased production costs. Overall, uncertainty in delivery complicates supply chain operations, making it difficult for companies to optimize their resources and meet customer demand efficiently.

Furthermore, poor service quality due to delays or disruptions in delivery can have long-term consequences for the company's reputation and customer relationships. Customers rely on timely and reliable delivery services, and when delays occur frequently or service quality is compromised, it can damage the company's reputation and erode customer trust. Negative experiences with delayed deliveries may lead to customer dissatisfaction, complaints, or even loss of business as customers seek out more reliable alternatives. Therefore, ensuring consistent and reliable delivery services is essential for safeguarding the company's reputation and maintaining customer loyalty in a competitive market landscape.

CONCLUSION

The relationship between ground transportation modes and the smooth flow of container traffic is not particularly effective due to the relatively insignificant impact of ground transportation modes on the smooth flow of container traffic. This is because the transportation modes used by PT Berkah Multi Cargo Logistics are still inadequate as they adhere to the standards set by the company. Consequently, the shipment process often experiences delays.

Not only fleet-related aspects, but infrastructure also affects delivery delays, such as many damaged roads and bridges with capacities insufficient to accommodate trucks. Human resources also play a crucial role in the shipping and handling process. The lack of trained personnel affects the smooth flow of container traffic as they are responsible for handling the container transfer process from ships to trucks and vice versa.

Furthermore, the inadequacy of ground transportation modes at PT Berkah Multi Cargo Logistics also causes losses for many parties due to delayed deliveries. For example, consignees incur losses from damaged goods if the shipped items are perishable or prone to spoilage. Consumers may

have to pay extra money because of limited stock in the area, while the company experiences losses due to the wastage involved in recruiting labor and repairing transportation modes.

REFERENCES

- Anish. (2022, May 24). A Guide to Shipping Container Dimensions. Retrieved from <https://www.marineinsight.com/maritime-law/guide-shipping-container-dimensions/>
- Ginting, D., Sahid, M., & Surbakti, D. F. (2021, October 1). Penanganan Pengangkutan Barang Melalui Container Pada PT. Elang Sriwijaya Perkasa Palembang. *Agriprimatech, 5*(1), 23-30. Retrieved from <https://unprimdn.ac.id>
- Herlambang, I. R., Fatonah, N. S., & Habibi, R. (2021, August). Implementasi Aplikasi Kargo Darat Ritel Menggunakan Metode Incremental PT Pos Logistik Indonesia. *Jurnal Teknik Informatika, 13*(3), 23-30. Retrieved from <https://poltekpos.ac.id>
- Maressa, A. (2021, September 28). Transportasi Darat: Pengertian, Jenis, Sistem, Fungsi, dan Manfaat. Retrieved from <https://adammui.com/transportasi-darat/>
- Musa, Y. E. K. D., & Setiono, B. A. (2012, September 1). Pengaruh Moda Transportasi Darat Terhadap Kelancaran Arus Container di PT. Nilam Port Terminal Indonesia Cabang Tanjung Perak Surabaya. *Aplikasi Pelayaran dan Kelabuhan: Media Analisis Masalah Pelayaran dan Kepelabuhan, 3*(1), 1-9. Retrieved from <https://dspace.hangtuah.ac.id/xmlui/handle/dx/970/Vol3No1>
- Widyawati, W., Merciana, D., & Kalangi, M. H. E. (2020, December 2). Moda Transportasi Darat dan Kualitas Layanan Jasa Terhadap Kelancaran Arus Container di Depo. Retrieved from <http://repositori.stiamak.ac.id/id/eprint/237/2/>