



Factors Affecting the Timeliness of Deliveries and Service Quality at J&T Cargo Bekasi Branch During Peak Season

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Abstract: This research aims to identify internal and external factors, as well as to understand the strategies and challenges faced by J&T Cargo during peak seasons. J&T Cargo, a part of the J&T Group, is a pioneer in technology-based logistics solutions for e-commerce in Southeast Asia, focusing on efficient cargo delivery. The study explores the factors that influence delivery timeliness and service quality at the J&T Cargo branch in Bekasi, especially during surges in e-commerce transactions. Peak seasons present significant logistical challenges, making it essential to maintain timeliness and service quality to meet customer expectations and uphold the company's reputation. A qualitative research method was employed through in-depth interviews, participant observation, and document reviews from logistics managers and delivery staff at the Bekasi branch. The analysis was used to identify key patterns and themes. The results indicate that improving the management of internal factors can enhance delivery timeliness and service quality. Recommendations for J&T Cargo include adding temporary staff, expanding warehouse capacity, and implementing ongoing training programs for employees to better address challenges during peak seasons.

Keywords: Timeliness, Service Quality, Cargo, Peak Season, E-Commerce

INTRODUCTION

A delivery service company is a company engaged in the field of delivery services, which in this case is the delivery of goods. Delivery of goods is the process of moving goods from one place to another. The reason why people or companies need delivery services is that the means of transportation that support people or companies are very limited. Therefore, other party services are needed to help deliver goods to their destination. Delivery of goods has a mission that is to deliver the right goods at the right place and at the right time that has been predicted. However, in reality, there are several problems during the delivery of goods, such as cheating on couriers, transportation constraints that result in delays, wrong addresses when delivering goods, or goods arriving not at the intended recipient (Rivki et al., n.d.). Peak seasons are busy times when the activity is busier than usual. There are certain times

when it is time for the delivery of goods to increase drastically. For example, during major events held by e-commerce. (MELELO, 2023)

Delivery services for e-commerce are increasingly numerous and competitive, so users need to evaluate which service suits their needs. E-commerce can also be defined as "The process of buying and selling goods electronically by consumers and from company to company through computerized business transactions" (Laudon and Laudon, 1998). Delivery services have a significant impact on the success and reputation of e-commerce businesses, requiring effective transportation strategy decisions involving both tactical and strategic decisions. E-commerce platforms such as Shopee, Tokopedia, Lazada, TikTok shop, and Bukalapak continue to develop and innovate to provide the best online shopping experience. One important aspect of the online shopping experience is the delivery process. E-commerce cooperates with various shipping services or expeditions that become a link between buyers and sellers. Delivery services in e-commerce must maintain the trust of sellers and buyers who use their services. (Cibro & Setiawan, 2024)

Many E-commerce companies today strive to create a strong and attractive brand image to increase users' interest in using their apps. J&T Cargo, part of the J&T Group, is an express company that embraces technological innovation. They consistently enhance efficiency and lower logistics costs by maintaining high operational standards and dependable warehouse, transportation, and distribution systems. Utilizing advanced logistics applications, they are dedicated to boosting business distribution value for customers and delivering an exceptional logistics experience. J&T Group itself, established in August 2015, is Southeast Asia's first technology-based logistics company whose main focus is on the E-commerce industry. The company operates across multiple sectors, including express delivery, cargo transportation, warehousing, and supply chain management. Its services cater to inter-city, inter-provincial, and international shipments. with J&T Cargo services that focus on large and heavy goods delivery services, J&T Cargo can use land, sea, and air cargo types. Of course, it is adjusted to the interests, distance, and characteristics of the goods. and for maximum J&T Cargo goods can touch 300 kg. Shipments with J&T Cargo usually include furniture, motorbikes, cars, and other items. J&T Cargo can serve package shipments weighing above 10 kg with B2B, B2C, and C2C user segmentation.

In the business world, there are often different types of shipping. In addition to the business of buying and selling products, there are different types of shipping, such as delivery of goods, delivery of food, and delivery of other products. As of January 2021, J&T Group manages more than 240 large sorting warehouses, 600 sets of automated sorting equipment, and 8,000 self-owned vehicles spread across the globe. In addition, they operate more than 23,000 outlets and have up to 350,000 employees. Based on this information, we, as the authors, are motivated to pursue this research titled "*Factors Affecting the Timeliness of Deliveries and Service Quality at J&T Cargo Bekasi Branch During Peak Season.*"

Literature Review

Logistics Management according to Wiliam Siahaya, (2019: 17) is the integration of competent business sources both inside and outside the company to obtain a competitive supply system and focuses on synchronizing the flow of products and information to create high customer value, integrated business sources include suppliers (Supplier), manufacturers (Manufacturer), warehouses (Warehouse), transporters (Transporter), distributors (Distributor), retailers (Retailer) and consumers (Customer) who work efficiently so that the products produced and distributed meet the place of quantity, quality, time and location. Business-to-consumer (B2C) e-commerce involves companies developing appealing digital platforms to offer a range of products and services directly to consumers. Nowadays, many businesses have established websites to facilitate this. Business to Business (B2B) E-commerce. This e-commerce category encompasses both the e-business market and direct

interactions between companies. Many companies provide secure websites with e-commerce catalogs over the Internet or extranet, catering to their customers and suppliers. In addition, B2B e-commerce portals are also important because they offer auction markets and buying and selling transactions for various companies. Companies can also utilize electronic data interchange (EDI) via the Internet or intranet to exchange e-commerce documents between their computers and major customers or suppliers. Consumer-to-Consumer (C2C) e-commerce thrives with the success of online auctions, where individuals and companies can engage in buying and selling through auction platforms. This has established it as a prominent C2C business strategy. Therefore, participating in or sponsoring auctions by customers or companies is an important alternative in e-commerce, in addition to the B2C (business-to-consumer), C2B (consumer-to-business), or B2B (business-to-business) models. In addition, personal electronic advertisements for buying or selling products and services by customers on e-newspaper sites, e-commerce portals, or personal websites are also another important form of C2C e-commerce.

In the context of logistics and delivery management, on-time delivery and service quality are two important variables that determine customer satisfaction and operational success. On-time delivery can be seen as part of operational efficiency driven by effective supply chain management. Meanwhile, service quality includes dimensions such as reliability, responsiveness, assurance, and empathy, all of which play an important role in building customer trust and loyalty. The Service Quality Theory developed by Parasuraman, Zeithaml, and Berry (1988) through the SERVQUAL model, states that service quality can be measured through five main dimensions: reliability, responsiveness, assurance, empathy, and tangibles. In a logistics context, the implementation of this theory enables delivery companies to meet or even exceed customer expectations, which in turn increases customer satisfaction and loyalty.

Punctuality in delivery is crucial as on-schedule delivery can be a major factor in improving service quality. Timeliness is the time when a customer orders a product until the product reaches the customer. Estimates of arrival and delivery are often the benchmark for customers in assessing a delivery service (Berliana, Suharyati, & Handayani, 2020). Delivery timeliness refers to the length of time it takes from the sender until the product reaches the customer. The accuracy of delivery times also affects customers' decisions in choosing a delivery service, both for E-Commerce and regular deliveries.

Service quality is an important factor that customers consider when buying a product. According to Putri & Utomo (2017), service quality is a measure of assessment of whether an item or service has the expected use value, in other words, if an item or service functions or has the expected use value, it is considered to have quality. Service quality includes all efforts made by the company to meet customer expectations for the services they receive. The goal is for the company to survive in the market, and gain consumer trust and satisfaction.

Peak Season Logistics Theory refers to the logistics strategies used during peak periods. According to Chopra and Meindl (2016), companies need to increase capacity, optimize resources, and improve management systems to cope with sudden spikes in demand during peak seasons. In the context of J&T Cargo, the application of this theory includes increasing the capacity of the shipping fleet, adding temporary labor, and implementing information technology to monitor and manage increased demand.

Peak Season is a busy time when activities are busier than usual. There are certain times when it is time for the delivery of goods to increase dramatically. (Muhdar et al., 2024). During the holiday season, retailers have enough information about demand by calculating the previous year's holiday sales. This helps retailers determine product discounts that can help e-commerce companies maximize their profits by offering special discounts and stocking up on products that are in high demand by customers. (Naduvilveetil, 2020)

E-commerce is the process of buying and selling products and services through electronic channels such as computers, the Internet, and other digital networks. (Kotler & Armstrong, 2016). By adopting traditional business practices and leveraging social networking online, business strategies can achieve success when executed effectively, leading to a rise in customer base, brand visibility, and revenue. Customer buying decisions are shaped by factors such as perception, motivation, learning, attitudes, and beliefs.

This article evaluates the impact of service quality and on-time delivery at J&T Cargo Bekasi branch during peak season, the objectives of writing this article is: 1.) To identify internal and external factors that affect the timeliness of delivery of goods by J&T Cargo Bekasi branch during peak season in E-commerce; 2.) To identify the right strategy for increasing order volume on the efficiency of shipping goods by J&T Cargo Bekasi branch during peak season; 3.) To identify the main obstacles faced by J&T Cargo Bekasi branch in maintaining service quality during peak season.

METHOD

The research method used in this study is a qualitative research method. The qualitative method is a method used by researchers to find knowledge or theories about research in a certain time (Mukhtar, 2013). This research will use survey methods and in-depth interviews as a source of data collection. The population of this research is all employees of J&T Cargo and the sample to be used is the source triangulation technique. Scientific research entitled "Delivery Timeliness Factors and Service Quality of J&T Cargo Bekasi Branch During Peak Season" will be conducted at the J&T Cargo branch in North Bekasi.

In this study, the population is all employees of J&T Cargo Bekasi branch and users of J&T Cargo services personally and in E-commerce. The specific sample criteria used in this study are Logistics Manager Students, Shipping Staff, E-commerce Users, and finally the Public who have used J&T Cargo Services in the Bekasi branch. The theory we will use is survey method. Survey methods are used in evaluation to make an assessment in a structured manner, based on facts, accurate data, and properties of a particular population or area. Various qualitative methods, such as surveys, interviews, observations, document analysis and data analysis are utilized to obtain and collect broader information. In general, relatively smaller samples are used. Many qualitative research methods, such as surveys and interviews, are used to address large-scale and actual issues with very large populations, so they often require large samples. This research focuses on the variables of delivery timeliness and service quality during peak season in e-commerce. Each variable is clearly explained from in-depth interviews and several previous studies which aim to make this research more accurate and in accordance with existing facts. The research data source is any type of information that has a link between research data. Research can be distinguished from 2 types of data sources, including:

1. Secondary Data

Secondary data is a data source that provides data to researchers indirectly, for example through other people or through documents to be submitted to data collectors or researchers. Sources of secondary data are data sources that will only complement the data needed by primary data.

2. Triangulation Method

Triangulation is a method for verifying data validity by using alternative sources or methods to cross-check or compare the data. The most common triangulation approach involves validating information through additional sources.

RESULTS AND DISCUSSION

Based on interviews with Mr. Agus Supriyatno, the owner of the J&T Cargo Bekasi branch, as well as several partner employees. According to the information provided during the interview, “During the peak season in 1 month, it can reach 500 to 600 shipping receipts 60% through e-commerce and 40% regular shipping, on those days it reaches 100 to 150 receipts per day and the data cannot be given because it is confidential. To attract customers, J&T Cargo specifically for the Bekasi area provides a 40% discount for shipments on Sundays, for discounts that each branch area is different. The types of vehicles are Blind Van, CDE, and CDD, according to the volume of shipments.”. It was revealed that the Bekasi branch has a special promotion program that takes place every Sunday. In this promotion, customers can get a 40% discount for every shipment made.

From the analysis of operational data, it is known that the Bekasi branch records an average shipment volume per month reaching 500 to 600 receipts. Of the total shipments, around 60% came from the e-commerce segment, reflecting the high trust of online businesses in J&T Cargo services. Meanwhile, the remaining 40% are regular shipments that include various types of goods from individual customers and local businesses.

During peak season periods, such as on twin date events, holidays, or the turn of the year, shipping volumes experience a significant increase. The number of receipts processed can jump to as high as 100 to 150 receipts per day. This increase reflects the high demand for deliveries driven by massive shopping activities and urgent needs from consumers.

To ensure the smooth process of picking up goods during this peak season, J&T Cargo Bekasi branch relies on a fleet of vehicles consisting of various types, including Blind Van, CDE (Colt Diesel Engkel), and CDD (Colt Diesel Double). The vehicle type selection is adjusted to the volume and characteristics of the goods to be picked up, so that the efficiency and timeliness of delivery are maintained. The combination of promotional strategies, effective fleet management, and commitment to quality service allows J&T Cargo Bekasi branch to continue to meet customer expectations, even in the most challenging operational conditions. And there are nine classes of dangerous goods, category 1 dangerous products to category 9 dangerous products, plus several sub-classes. The customer's shipping class will be determined through the way it is packaged, labeled and transported. The goods that are not sent by J&T Cargo Bekasi are Prohibited Goods, Perishable Goods, Dangerous Goods.

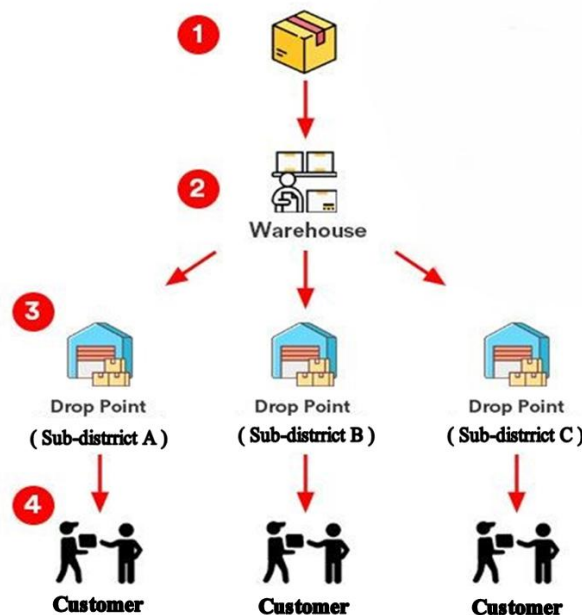


Figure 4.1 Flow of Goods Delivery

Source: www.deddyhuang.com

1. The package has been shipped and has arrived at the destination.

2. Packages are taken to the gateway or storage warehouse to be sorted based on their respective destination addresses.
3. Packages are distributed to each of J&T's Drop Points which are scattered in various places of in destination cities
4. The package is directly delivered by courier to the destination address in the delivery area of each Drop Point.

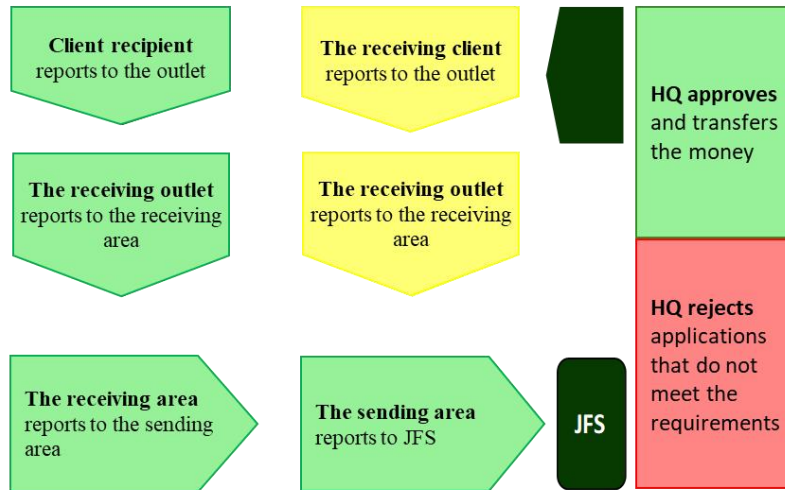


Figure 4.2 Procedure for Submitting Claims if Goods are Damaged or Lost

- Submission of damaged goods at least 7 days from receipt.
- Submission of lost items is a maximum of 30 days from the date of opening the receipt.
- All applications must be accompanied by the required documents.



Figure 4.3 Flow of Receipt Handling On-time Delivery of Goods during peak season

On-time delivery of goods during peak season is one of the crucial aspects that is often under pressure due to the high volume of shipments. Peak season, which usually occurs ahead of major holidays, mass shopping events such as twin dates, and the year-end period, is a challenge for J&T Cargo. The surge in shipment volume during this period can cause bottlenecks in the distribution chain, both at the initial processing stage in the warehouse and during the final delivery to the recipient's hands.

J&T Cargo will usually try to minimize the impact of these challenges by increasing operational capacity, utilizing technology, and improving logistics management during these busy periods. However, customers may still experience some delays compared to normal periods.

Nonetheless, external challenges such as traffic congestion, inclement weather, and e-commerce traffic congestion often cannot be fully overcome. As a result, in peak conditions such as these, customers may experience unusual delivery delays compared to normal periods. J&T Cargo continuously strives to maintain transparency by providing clear and accurate information to customers regarding the status of their shipments, as well as providing responsive customer service to handle any complaints that may arise.

Service quality during peak season is another challenge that J&T Cargo has to face, especially considering the high expectations from customers who rely on fast and reliable delivery services. The surge in shipment volume that occurs during this period puts additional pressure on J&T Cargo operational systems, from the sorting process in the warehouse to the final delivery. J&T Cargo generally tries to maintain service quality by increasing operational capacity, strengthening customer support, and utilizing technology to reduce the impact of volume spikes.

However, despite these efforts, some obstacles cannot always be completely avoided. Very high increases in shipment volumes can lead to a decline in service quality, such as delays in customer service response or errors in the sorting and shipping process. J&T Cargo understands that peak season periods bring unique challenges and does its best to maintain customer satisfaction by continuously innovating and improving its operational systems. Customers are expected to remain tolerant and understand that these challenges are part of the dynamics of the highly dynamic logistics industry, especially during busy periods like this.

**Table Internal and External Factors Timeliness and Service Quality
J&T Cargo Bekasi Branch during Peak Season**

INTERNAL FACTORS	EXTERNAL FACTORS
The processing, sorting, and distribution processes may become more complex and at risk of errors. Increasing the number of packages can increase the likelihood of errors in sorting and delivery.	During the peak season, traffic congestion and heavy local deliveries can affect the travel time and timeliness of deliveries.
Increased volumes can put pressure on the capacity of warehouses and transport vehicles. These capacity constraints can lead to queues or delays in delivery.	Peak seasons, such as during major promotions or holidays and twin-date events often cause significant spikes in orders. High shipment volumes can slow down the sorting and shipping process, potentially causing delays.
Labor availability and efficiency can affect the speed of the delivery process. If there is not enough labor or effective management, this can cause delays and labor limitations or insufficient additional labor requirements can affect the speed of the process.	Increasing the number of shipments can cause overlap in the distribution and delivery process, leading to the wrong drop point.

Limited capacity and number of transport vehicles may cause delays.	During peak seasons such as those of Shopee, Tokopedia, Lazada, Bukalapak, Tiktok Shop, and other e-commerce platforms, the increased number of packages can cause delays in the sorting and shipping process. The surge in orders from e-commerce significantly increases the volume of shipments, potentially resulting in delays in package processing and delivery. Handling large quantities of packages is often more prone to delays.
At the beginning of the month, the 40% discount promo every Sunday often cannot be used due to delays in promo updates from J&T Cargo IT team.	Delivery accuracy can decrease if there are problems in package management, such as sorting errors or delays in the delivery process.
Increased shipment volumes can lead to longer response times from customer service teams in handling shipment-related queries or issues.	Increased traffic and congestion can impact delivery times and overall service quality.
With volume spikes, response times to customer inquiries or issues may be longer compared to normal periods.	As the number of packages increases, the possibility of errors such as misdelivered packages or errors in sorting becomes higher. This can affect delivery accuracy and customer satisfaction.
Tracking and logistics management systems that support e-commerce deliveries have to deal with additional burdens, which can affect tracking accuracy and communication with customers. The extra burden on the technology and infrastructure used to manage and monitor shipments can have an impact on overall performance.	

This research aims to provide insight into the challenges and solutions that can be implemented to improve efficiency and customer satisfaction during peak seasons, which are:

1. Identify the main factors causing delivery delays during peak seasons, such as high volume, logistics constraints, and resource limitations.
2. Evaluate customer experience and satisfaction, including responsiveness, complaint handling, and communication during busy periods.
3. Analyze how technology, such as tracking systems and automation, affects on-time delivery and service quality.
4. Review resource management strategies and planning to handle increased shipment volumes during peak seasons.
5. Compare J&T Cargo's performance with competitors to identify strengths and areas of improvement.
6. Evaluate how infrastructure and capacity support operations and identify additional capacity needs.
7. Create a research-based action plan to sustainably improve on-time delivery and service quality.

CONCLUSION

From this research, it can be concluded that the Bekasi branch of J&T Cargo provides a special promotional program every Sunday with a 40% discount for each shipment. The branch records an average monthly shipment volume of around 500 to 600 receipts, of which around 60% are from e-commerce, indicating the high level of trust online businesses have in their services. The remaining 40% are regular deliveries covering a wide range of goods from individual customers and local businesses. During peak periods such as twin date events, holidays, or the turn of the year, shipment volumes increase significantly. J&T Cargo Bekasi branch uses various types of vehicles, including Blind Van, CDE (Colt Diesel Engkel), and CDD (Colt Diesel Double) to handle shipments. Promotional strategies, efficient fleet management, and a commitment to quality service help this branch meet customer expectations even in challenging operating conditions. J&T Cargo Bekasi Branch faces various challenges in terms of logistics, infrastructure, and transportation on platforms such as Bukalapak, Lazada, Tokopedia, Shopee, and others. Increased package volume can cause delays in delivery and increased operational costs. In addition, the number of employees on hand can affect the speed of the delivery process, while the volume of customers can also potentially affect delivery times. In addition, a high number of packages can impact customer service response times. To effectively handle the delivery process, the logistics department must be well-equipped and utilize advanced technology and infrastructure. All these efforts aim to make J&T Cargo Bekasi Branch a reliable and efficient branch.

On-time delivery during peak seasons is often under pressure due to the high volume of shipments from E-Commerce. J&T Cargo seeks to minimize the impact of these challenges by increasing operational capacity, leveraging technology, and improving logistics management. Although there are possible challenges, customers generally do not experience significant delays compared to normal periods. J&T Cargo also maintains transparency by providing clear and accurate information and handling customer complaints well.

Service quality during peak periods is a big challenge for J&T Cargo, given the high expectations of customers who rely on fast and reliable delivery. The surge in shipment volume puts additional pressure on their operational systems, from the sorting process at the warehouse to the final delivery.

The causes of delivery delays during peak season at J&T Cargo Bekasi Branch include high package volume, logistical constraints, and limited resources. Customer service quality is affected by responsiveness, complaint handling, and effective communication. Technology, such as tracking and automation systems, is important in improving on-time delivery and service quality. A sound operational management strategy is required to handle spikes in shipment volumes. Benchmarking with competitors helps identify strengths and areas of improvement. Infrastructure and capacity should be evaluated to support efficient operations. For continuous improvement, it is important to design an action plan that corrects identified weaknesses and improves overall performance.

Future research could focus on analyzing external factors such as traffic conditions, weather, and increased e-commerce demand to understand their impact on delivery accuracy as well as mitigation measures that can be implemented. In addition, it is important to explore the relationship between service quality and customer loyalty, especially how service timeliness and responsiveness affect customer trust and decisions. Using various methodologies, both qualitative and quantitative, can provide new insights, while long-term research can help track trends and changes in customer behavior..

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