

A STUDY OF OPERATIONAL MANAGEMENT IN HIGH PRIORITY AND LOW PRIORITY CARGO IN AIR CARGO LOGISTICS AT SJA GLOBAL

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Abstract

This study examines the operational management of high-priority and low-priority cargo in air cargo logistics at SJA Global Logistics Park Private Limited. Air cargo plays an important role in the transportation of time-sensitive and high-value goods such as pharmaceuticals, perishables, and urgent consignments. Managing cargo based on priority is essential to ensure timely delivery and efficient operations.

The main objective of this study is to analyse how cargo is classified and handled based on priority levels. It focuses on key operational processes such as cargo acceptance, documentation, warehouse handling, load planning, flight coordination, and delivery. The study is based on practical experience gained during internship in the Operations Department.

The findings show that high-priority cargo is handled with faster processing, dedicated storage, and continuous monitoring, while low-priority cargo follows standard procedures. However, certain challenges such as documentation delays, warehouse congestion, and coordination issues affect operational efficiency.

The study concludes that effective priority management improves service quality and customer satisfaction. It also suggests that the use of technology, better communication, and staff training can further enhance cargo operations.

Keywords

Air Cargo Logistics, Priority Cargo Management, High-Priority Shipments, Low-Priority Cargo, Warehouse Operations, Cargo Handling, Load Planning, Customs Clearance, Logistics Efficiency, Supply Chain Management.

I. INTRODUCTION

Air cargo logistics is an essential part of the global transportation system. It enables the fast movement of goods across different regions, especially for shipments that require quick delivery. Many industries such as healthcare, e-commerce, and manufacturing depend on air cargo services for timely distribution of their products.

In air cargo operations, not all shipments require the same level of urgency. Some shipments are highly time-sensitive and need immediate handling, while others can be delivered within a flexible time frame. Based on this difference, cargo is classified into high-priority and low-priority categories.

High-priority cargo includes shipments such as medicines, perishable goods, and urgent business consignments, where delay can lead to serious consequences. Low-priority cargo includes general goods that do not require immediate delivery and can be handled through standard procedures.

Effective management of these different types of cargo is important for maintaining operational efficiency and customer satisfaction. Proper prioritization helps in better use of resources, timely delivery, and smooth coordination between different departments.

This study focuses on the operational management of high-priority and low-priority cargo at SJA Global Logistics Park Private Limited. It is based on practical experience gained during internship in the Operations Department. The study aims to understand the cargo handling process, identify challenges, and suggest improvements for better performance.

II. PROBLEM STATEMENT

Air cargo logistics plays a critical role in the transportation of time-sensitive and high-value goods. However, managing cargo based on priority levels presents several operational challenges for logistics companies. High-priority and low-priority shipments require different levels of handling, coordination, and resource allocation, which can create complexity in daily operations.

In many cases, delays occur due to documentation errors, limited warehouse space, and inefficient coordination between departments such as operations, customs, and ground handling. High-priority cargo, which requires immediate attention, may be affected by these issues, leading to delays in delivery and reduced customer satisfaction. At the same time, low-priority cargo may experience inefficiencies due to improper scheduling and resource utilization.

Another major challenge is the lack of advanced tracking systems and real-time communication, which makes it difficult to monitor shipments effectively. During peak periods, the sudden increase in cargo volume further adds pressure on available resources, making priority-based handling more difficult.

Therefore, there is a need to study how high-priority and low-priority cargo are managed in air cargo logistics operations. This study aims to identify the key challenges involved in priority cargo handling and to suggest practical solutions for improving efficiency, coordination, and overall performance.

III. LITERATURE REVIEW

Air cargo logistics has been widely studied as a critical component of global supply chain management. It plays an essential role in transporting time-sensitive and high-value goods, ensuring speed and reliability in international trade. Researchers have emphasized that efficient cargo handling and operational coordination are key factors influencing the performance of logistics systems.

According to John T. Bowen, air cargo contributes significantly to global trade by enabling fast movement of goods across long distances. His study highlights that proper integration between airlines, freight forwarders, and ground handlers improves efficiency and reduces delays in cargo operations. This integration is particularly important for handling time-sensitive shipments.

Martin Christopher explains that logistics and supply chain management focus on optimizing the flow of goods, information, and resources. His work emphasizes that effective planning and coordination are essential for minimizing delays and improving service quality. He also highlights the importance of customer satisfaction in logistics performance.

Studies by Jean-Paul Rodrigue focus on transport systems and their role in logistics operations. His research indicates that infrastructure, network connectivity, and operational efficiency directly affect cargo movement. Efficient transport systems enable better handling of cargo and reduce transit time.

Further research by Peter Morrell highlights the operational aspects of air cargo management. His study explains that cargo handling involves multiple stages such as documentation, warehousing, and loading, and each stage must be managed effectively to avoid delays. He also emphasizes the importance of technology in improving operational performance.

In addition, John Wensveen discusses the role of air transportation management in improving logistics efficiency. His work highlights that proper planning, trained workforce, and advanced systems are necessary for handling different types of cargo efficiently.

Most of the existing literature focuses on general air cargo operations, supply chain integration, and logistics efficiency. However, there is limited research specifically addressing the operational management of high-priority and low-priority cargo. The differentiation in handling these cargo types and its impact on operational performance is not deeply analysed.

Therefore, this study attempts to fill the research gap by focusing on priority-based cargo management. It provides practical insights into how different types of cargo are handled in real-time operations and identifies the challenges and improvements required in this area.

IV. CASE STUDY ANALYSIS

This chapter presents the case study analysis of cargo operations at SJA Global Logistics Park Private Limited. Instead of a traditional research methodology, this study adopts a practical case-based approach to understand the operational management of high-priority and low-priority cargo. The focus is on real-time observation and process analysis.

A. Source of Information

The information for this study was collected through direct observation during internship in the Operations Department. Additional information was obtained from company records, internal documents, and operational procedures followed at SJA.

B. Units of Analysis

The study focuses on cargo shipments handled at SJA Global Logistics Park. These shipments are classified into high-priority and low-priority cargo based on urgency and handling requirements.

C. Process Mapping

The study analyses the cargo handling process through step-by-step mapping. The major stages include booking, documentation, cargo acceptance, security checks, sorting, storage, loading, and delivery.

D. Analytical Factors

The analysis is based on key operational factors such as processing time, handling priority, storage method, coordination level, and delivery performance. These factors help in comparing the efficiency of cargo handling processes.

E. Scope of Analysis

The study focuses only on operational activities related to cargo handling at SJA. It does not include financial or external market analysis.

F. Limitations

The study is limited to one organization and is based on a specific period of internship. The findings are based on observation and may vary under different conditions.

G. Summary

This chapter explained the case study approach used for analysing cargo operations. It provides a structured framework for understanding priority-based cargo handling without using traditional research methodology.

V. OPERATIONAL ANALYSIS

A. Introduction

This chapter presents the operational analysis of cargo handling activities at SJA Global Logistics Park Private Limited. The analysis is based on observation of real-time processes and focuses on understanding how high-priority and low-priority cargo are managed within the system.

B. Analysis of Cargo Handling Process

The cargo handling process follows a structured sequence including booking, documentation, cargo acceptance, security checks, sorting, storage, loading, and delivery. Each stage plays an important role in ensuring smooth operations.

High-priority cargo is processed quickly at every stage, while low-priority cargo follows a standard sequence. This difference helps in maintaining efficiency but also creates variation in processing time.

C. Analysis of High-Priority Cargo

High-priority cargo is handled with immediate attention. Faster documentation, priority storage, and early loading ensure timely delivery. Dedicated processes and close

monitoring improve the efficiency of handling such shipments.

D. Analysis of Low-Priority Cargo

Low-priority cargo is managed based on available time and resources. It follows standard procedures and is processed after priority shipments. While this ensures cost efficiency, it may lead to delays during peak periods.

E. Operational Issues Identified

Several operational issues were observed during the analysis. Documentation delays affect processing speed. Limited warehouse space leads to congestion. Coordination gaps between departments also impact efficiency.

F. Summary of Analysis

The analysis shows that priority-based cargo handling improves efficiency for urgent shipments. However, there is a need to improve overall coordination, space management, and process efficiency to handle all types of cargo effectively.

VI. RESULTS AND DISCUSSION

The results of the study are based on the case study analysis of cargo operations at SJA Global Logistics Park Private Limited. The findings indicate that the company follows a structured system for handling cargo based on priority levels. High-priority shipments are processed faster with dedicated attention at every stage, which helps in maintaining timely delivery and service reliability.

The analysis shows that high-priority cargo benefits from better coordination, quicker documentation, and priority loading. This ensures minimal delays and improves customer satisfaction. In contrast, low-priority cargo follows standard procedures and is processed based on available resources, which sometimes leads to delays, especially during peak periods.

Another important observation is that operational challenges such as documentation delays, limited warehouse space, and coordination gaps affect overall efficiency. These issues impact both high-priority and low-priority cargo, although the effect is more visible in non-urgent shipments. The lack of advanced tracking systems also reduces real-time visibility of cargo movement.

Overall, the discussion highlights that while the current system is effective in handling urgent shipments, there is a need for improvement in overall process efficiency. Better coordination, use of technology, and infrastructure development can enhance cargo operations and ensure consistent service quality.

VII. RECOMMENDATIONS

- Implement digital tracking systems for real-time cargo monitoring
- Automate documentation processes to reduce errors and delays
- Improve warehouse space utilization and storage planning
- Provide regular training programs for operational staff
- Strengthen coordination between departments and stakeholders
- Introduce better scheduling for low-priority cargo handling
- Use advanced technology such as RFID and automated systems
- Improve communication systems within the organization
- Enhance customs clearance coordination to reduce waiting time
- Develop standard operating procedures for peak period management

VIII. CONCLUSION

The study on the operational management of high-priority and low-priority cargo at SJA Global Logistics Park Private Limited highlights the importance of efficient cargo handling systems in air logistics. The findings clearly show that priority-based cargo management plays a significant role in ensuring timely delivery and maintaining service quality.

High-priority cargo handling is well-structured and efficient, with faster processing, dedicated storage, and continuous monitoring. This ensures that time-sensitive

shipments are delivered without delay, which is essential for maintaining customer trust and operational reliability. On the other hand, low-priority cargo, although managed effectively, faces certain delays due to dependency on resource availability and operational constraints.

The study also identifies key challenges such as documentation delays, limited warehouse capacity, and coordination gaps between departments. These issues affect overall efficiency and highlight the need for better planning and system improvements. The lack of advanced technology and real-time tracking systems further limits the effectiveness of cargo management.

In conclusion, improving operational efficiency requires the adoption of modern technology, better communication systems, and enhanced workforce training. By addressing these challenges, logistics companies can improve their performance, reduce delays, and provide better service to customers. The study provides practical insights that can help organizations optimize their cargo handling operations and strengthen their position in the competitive air cargo industry.

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