

## Irregularity Cargo Management at Garuda Indonesia Semarang

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### Abstract

**Objective** – This research aims to provide a practical contribution to air cargo operational management and serve as an academic reference for the development and study of air transportation management.

**Methods** – This research utilizes literature review, document analysis, and comparison of handling reports with standard air transportation regulations. The findings are analyzed based on operational management concepts and aviation legal provisions.

**Results** – The study of Garuda Indonesia Cargo Semarang indicates that the company has, in principle, fulfilled its legal responsibilities in accordance with applicable laws and regulations. This implementation is evident in the irregularity cargo handling mechanism, which includes a claims process and compensation for service users based on established internal procedures, and also refers to Law Number 1 of 2009 concerning Aviation, Minister of Transportation Regulation Number PM 77 of 2011 concerning Air Transport Responsibility for Domestic Shipments, and the 1999 Montreal Convention for International Shipments.

**Implications** – The research results can serve as a basis for evaluating and improving air cargo operational management, particularly in preventing irregularity cargo. The research findings emphasize the importance of strengthening operational management, increasing reservation data accuracy, standardizing packaging, and improving coordination between airlines and cargo agents. Implementation of these recommendations is expected to reduce the risk of loss for both service users and airlines, increase legal certainty for service users, and strengthen trust in air cargo services.

**Originality** - This research's originality lies in its analytical approach, which combines air cargo operational practices with national and international legal frameworks. This research not only assesses regulatory compliance but also links it to the operational management concept at Garuda Indonesia Cargo Semarang, focusing on cargo irregularity as the interface between operational risk and legal liability.

**Keywords:** Operational Management, Irregularity Cargo, Air Cargo, Garuda Indonesia Cargo

### Abstrak

**Tujuan** – Penelitian ini bertujuan untuk memberikan kontribusi praktis bagi pengelolaan operasional kargo udara serta dapat menjadi referensi akademik bagi pengembangan dan kajian manajemen transportasi udara.

**Metode** – Penelitian ini menggunakan studi literatur, analisis dokumen, laporan penanganan dibandingkan dengan regulasi standar pengangkutan udara dan analisa temuan berdasarkan konsep manajemen operasional serta ketentuan hukum angkutan penerbangan

**Hasil** – Hasil kajian pada Garuda Indonesia Cargo Semarang menunjukkan bahwa perusahaan pada prinsipnya telah melaksanakan tanggung jawab hukum sesuai dengan ketentuan peraturan

*perundang-undangan yang berlaku. Pelaksanaan tersebut terlihat dari mekanisme penanganan irregularity cargo melalui proses klaim dan pemberian kompensasi kepada pengguna jasa berdasarkan prosedur internal yang telah ditetapkan dan juga mengacu pada UU nomer 1 tahun 2009 tentang Penerbangan, Peraturan Menteri Perhubungan nomer PM 77 tahun 2011 mengenai Tanggung jawab pengangkutan udara untuk kiriman domestik atau dalam negeri dan Konvensi Montreal 1999 untuk pengiriman Internasional.*

**Implikasi** - Hasil penelitian dapat menjadi dasar evaluasi dan perbaikan pengelolaan operasional kargo udara, khususnya dalam pencegahan irregularity cargo. Temuan penelitian menegaskan pentingnya penguatan manajemen operasional, peningkatan akurasi data reservasi, standarisasi kemasan, serta perbaikan koordinasi antara maskapai dan agen kargo. Implementasi rekomendasi ini diharapkan mampu menekan risiko kerugian baik pengguna jasa maupun airline, meningkatkan kepastian hukum bagi pengguna jasa, serta memperkuat kepercayaan terhadap layanan kargo udara.

**Orisinalitas** - Orisinalitas penelitian ini terletak pada pendekatan analisis yang mengombinasikan praktik operasional kargo udara dengan kerangka hukum nasional dan internasional. Penelitian ini tidak hanya menilai kepatuhan terhadap regulasi, tetapi juga mengaitkannya dengan konsep manajemen operasional di Garuda Indonesia Cargo Semarang. Dengan mengacu pada irregularity cargo sebagai titik temu antara risiko operasional dan tanggung jawab hukum.

**Kata kunci:** manajemen operasional, irregularity cargo, kargo udara, Garuda Indonesia Cargo

## Introduction

The aviation industry plays a strategic role in supporting economic activity and the distribution of goods. In addition to passenger services, air cargo services are a crucial source of revenue for airlines. This was particularly true during the COVID-19 pandemic several years ago, when many global airlines went bankrupt due to limited passenger travel and stringent requirements. Air transportation was particularly impacted. Garuda Indonesia was able to survive by capitalizing on the potential for freight and logistics delivery, which remains essential for serving passengers from one city to another, from one island to another, with its extensive fleet. It even innovated by modifying passenger seating to accommodate cargo, maximizing the volume of cargo transported. However, in practice, air cargo transportation is not free from potential problems or irregularities that arise before, during, during, and upon arrival at the destination.

According to the International Air Transport Association (IATA), through its Airport Handling Manual (AHM), air cargo is classified based on its characteristics and handling methods. IATA divides cargo into general cargo and special cargo. General cargo is goods that do not require special handling and can be transported according to standard procedures. Meanwhile, special shipments cover various types of cargo that require special treatment, such as live animals (AVI), dangerous goods (DG), human remains (HUM), high-value goods (VAL), highly perishable goods (PER), and diplomatic/high-value cargo (VUN). Furthermore, IATA also classifies special cargo or dangerous cargo products based on their risk level and handling methods, which include aspects of packaging, labeling, storage, and safety procedures during the transportation process. This classification aims to ensure flight safety, cargo security, and minimize the potential for cargo irregularities due to mishandling.

Garuda Indonesia Cargo Semarang, as a national air cargo service unit, plays a crucial role in supporting the distribution of goods in Central Java and its surrounding areas. As a state-owned enterprise engaged in air transportation, Garuda Indonesia Cargo is required to maintain high service standards and comply with applicable regulations. In practice, operational challenges such as capacity limitations, weather factors, and coordination between work units can trigger cargo irregularities.

In addition to impacting operational performance, cargo irregularities also have implications for business law. Under a transportation agreement, the company is obligated to deliver goods to the recipient within the agreed conditions and timeframe. If an irregularity results in a loss for the service user, the company can be held liable for damages. Therefore, handling cargo irregularities is not merely an operational issue but also an integral part of a company's legal risk management.

Most studies on cargo irregularities still focus on the legal aspects of air transportation, particularly regarding airline liability and compensation mechanisms. Conversely, management studies tend to discuss operational efficiency and service quality without directly linking these to business law implications. This situation highlights the need to integrate management and business law perspectives in addressing cargo irregularity management.

Cargo irregularities can be defined as abnormal conditions that occur during the handling and transportation of goods, whether before, during, in transit, or after the goods arrive at their destination. These conditions can include delays in delivery, physical damage to goods, partial or complete loss of goods, incorrect documentation, or discrepancies in the quantity or type of goods. If not managed properly, cargo irregularities can erode customer trust and impact company performance. From a management perspective, cargo irregularity is an operational risk that must be managed systematically. Operational management plays a role in ensuring that every process runs efficiently, effectively, and in accordance with established standards. Furthermore, business legal aspects are inherent in air cargo transportation, as they involve the company's responsibility to customers or service users and compliance with applicable laws and regulations.

Based on this description, this article aims to examine cargo irregularity management at Garuda Indonesia Cargo Semarang using an operational management approach. Business legal aspects are used as an evaluation framework to examine how cargo irregularity management impacts corporate responsibility. Using a conceptual paper approach, this article is expected to provide a more comprehensive understanding of management's role in controlling cargo irregularity.

This research focuses on Garuda Indonesia Cargo Semarang, a key operational hub in Central Java. This location was selected based on its role as a hub for regional, intercity, and inter-island freight distribution, as well as the potential for cargo irregularity in daily operations. Therefore, this study is entitled "Cargo Irregularity Management at Garuda Indonesia Semarang."

## Literature review

### *Operational Management (Variable X1)*

Operational management is the process of managing activities related to the planning, implementation, supervision, and control of air cargo transportation operations to ensure they run effectively and efficiently. This management includes reservation management, cargo handling in warehouses, aircraft cargo capacity management, and coordination between work units and supporting partners. The primary objective of operational management is to ensure cargo is delivered on time, in good condition, according to documentation, and meets aviation safety standards.

### *Air Transportation Business Law (Variable X2)*

Air transportation business law regulates the legal relationship between airlines as carriers and users of cargo services. These regulations cover the rights and obligations of the parties, including the airline's responsibility for the security, safety, and condition of transported goods. In the context of irregular cargo, business law serves as the basis for determining liability and the mechanism for settling claims or providing compensation in accordance with applicable laws and regulations, which also refer to Law Number 1 of 2009 concerning Aviation, Minister of Transportation Regulation Number PM 77 of 2011 concerning Air Transportation Liability for Domestic Shipments, and the 1999 Montreal Convention for International Shipments.

### *Cargo Irregularity (Variable Y)*

Cargo irregularity is a condition of nonconformity that occurs during the handling and transportation of air cargo, resulting in goods not being received according to the transportation agreement. Forms of cargo irregularity include delivery delays, physical damage to goods, lost cargo, document errors, and discrepancies in the quantity or type of goods. The incidence of cargo irregularity reflects the quality of operational management and a company's compliance with standards and legal provisions.

## Relationship between Variables and Hypotheses

### *The Impact of Operational Management on Cargo Irregularities*

Cargo transportation begins with the reservation or booking of space in the aircraft compartment. The cargo is received by the Air Freight Forwarder (EMPU) as Line 2, accompanied by a PTI (Notification of Contents) and SMU (Airway Bill), commonly known as the AWB (Airway Bill). The packaging is then checked against airline standards. Once complete, the cargo is transported to the Cargo Warehouse (Line 1) for X-ray to verify compliance with the notification documents. The packaging is rechecked to ensure there are no irregularities or damage to the exterior or interior before being received at the warehouse and a BTB (Proof of Weighing) is issued. The BTB and AWB are input into the cargo system, resulting in a Freight Manifest, which is aligned with the reservation plan on the day before departure. The manifest is reported to the Load Control team in the

Operations Unit, who then issues a Load Sheet document for each flight, along with the number of passengers and baggage to be flown. This applies to both the origin, transit, and destination of the goods. This process is called Operational Management.

Mismatches between the reservations of the goods sent and the goods received, whether partially or completely, the use of non-standard packaging, delays, damage, or loss of cargo due to inadequate handling are things that must be avoided as much as possible to prevent irregular cargo that impacts the complaints of the sender/receiver of the goods and causes claims for the above matters. The better the Operational Management (X1) of Cargo is implemented, the lower the level of irregular cargo (Y) that occurs.

### *The Impact of Air Transport Business Law on Cargo Irregularities*

Law Number 1 of 2009 concerning Aviation stipulates that carriers are responsible for lost, damaged, or destroyed goods from the time they are received until they are delivered to the consignee. This law states that airlines are responsible for these matters unless they can prove certain circumstances that exempt them from such liability.

Minister of Transportation Regulation Number PM 77 of 2011 regulates liability for passengers, baggage, and cargo. This regulation stipulates that carriers are required to provide compensation for lost cargo, with the value based on the weight of the goods, with a maximum compensation limit per kilogram. The value of the goods can be increased if the sender initially declares the price and value of the goods by paying an additional fee.

The 1999 Montreal Convention states that carriers are responsible for damage, loss, and delay. The carrier's liability is limited to a specific weight of the goods unless the sender declares the value of the goods, which is, of course, regulated by a special price. This convention, in addition to regulating legal limits, also regulates the validity period for filing claims. The existence of the Air Transportation Business Law (X2) will make airlines more careful in handling and managing cargo shipments properly to avoid claims and complaints that could affect the company's reputation. In this case, the law functions as a control so that companies increase discipline in implementing operational management properly to minimize the occurrence of Irregularity Cargo (Y).

### *The Influence of Operational Management & Air Freight Business Law on Cargo Irregularity*

Operational Management (X1) directly impacts the entire cargo handling process. If capacity planning is inaccurate, reservations are inaccurate, supervision is weak, documentation is incomplete, and coordination between Units and Agents is poor, the risk of delays, damage, loss of goods, or document errors, which impact delivery schedules, will increase the risk of cargo irregularity. Conversely, if all processes are executed properly and orderly, the occurrence of cargo irregularity will be minimized.

Air Freight Business Law (X2) has an indirect impact on cargo irregularity. The higher the compliance with regulations and risk control, the stronger the application of Air Freight Business Law.

Therefore, cargo irregularity (Y) is influenced by the quality of Operational Management implementation and strong compliance with Business Law.

## Research Methodology

The research methodology used in the study of cargo irregularity in air transportation generally uses a descriptive qualitative approach. This approach is widely used because cargo irregularity is an operational issue directly related to work processes, internal policies, and cargo handling practices in the field. Qualitative research allows researchers to deeply understand how cargo disruptions occur, the factors that cause them, and how companies respond to and control these problems. This approach is considered appropriate for studying complex operational phenomena that cannot be measured solely with existing data.

According to Slack, Brandon-Jones, and Johnston (2019), operational management focuses on how an organization designs, implements, and controls processes to ensure that results meet established standards. When processes are inconsistent, the risk of operational disruption increases. A qualitative approach allows researchers to explore the causes of cargo irregularity in more depth through the analysis of documents, work procedures, and operational policies. By linking these findings to operational management concepts, the research can provide a clearer picture of the relationship between the quality of operational management and the emergence of cargo irregularity. Therefore, the operational management framework developed by Slack, Brandon-Jones, and Johnston is relevant for analyzing and evaluating the management of cargo irregularity in air transportation.

## Results and Discussion

This study used three variables:

X1 = Operational Management

X2 = Air Transportation Business Law

Y = Irregularity Cargo

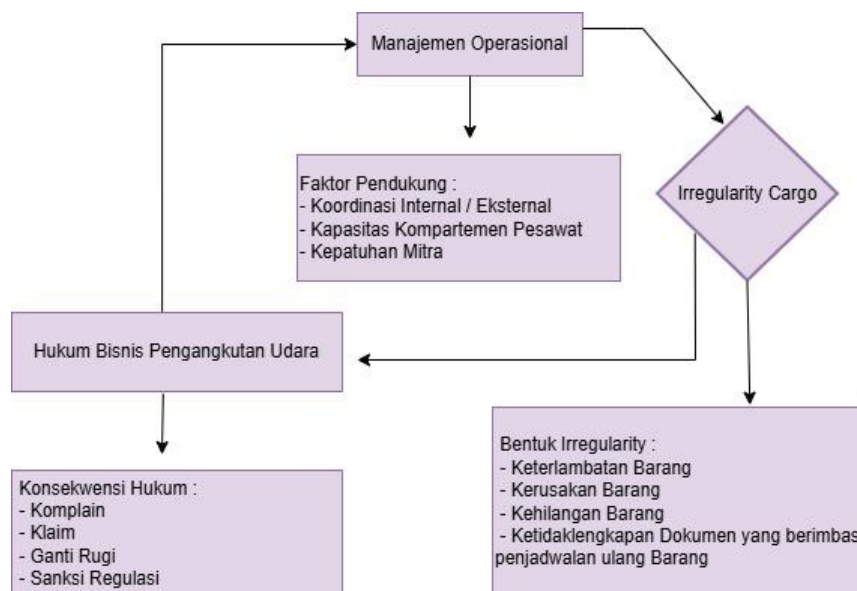
**Table 1. Conceptual Model Diagram**

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Manajemen Operasional ( $X_1$ ) ➡ Irregularity Cargo (Y) ← Hukum Bisnis Pengangkutan Udara ( $X_2$ )

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The following also presents a diagram of the relationship between variables which is compiled based on a literature review and case study analysis, as follows:



**Figure 1. Variable Relationship Diagram**

Operational management is directly linked to the occurrence of cargo irregularities because weaknesses in operational planning, supervision, and coordination can increase the risk of irregularities in the cargo transportation process, resulting in delays, damage, loss, and incomplete documentation, which can lead to rescheduling of deliveries.

Conversely, business law is linked to cargo irregularities because every irregularity has legal consequences in the form of company liability to service users. This can lead to complaints, which can lead to claims and compensation, which will certainly impact regulatory compliance if the complaint is prolonged. Therefore, the level of handling of irregular cargo in air cargo transportation significantly impacts the success of operational management in implementing business law.

## Conclusion

Based on the provisions of Law Number 1 of 2009 concerning Aviation and its implementing regulations, air cargo transportation is a business activity that creates a legal relationship between the airline as the carrier and the service user as the sender or recipient of goods. Within this legal relationship, the airline is obligated to transport goods safely, securely, and on time, in accordance with the agreed transportation agreement.

In the context of cargo irregularities, such as delays, damage, loss, or inconsistencies in documents, the Aviation Law stipulates that airlines are responsible for losses suffered by service users as long as the losses occur during the transportation process and are not caused by circumstances excluded by law. Therefore, cargo irregularities are not only viewed as operational failures but also as legal events that can

give rise to compensation obligations for the airline.

Based on the results of the study on Garuda Indonesia Cargo Semarang, it can be concluded that the company has, in principle, fulfilled this legal responsibility in accordance with applicable laws and regulations. Efforts to resolve cargo irregularities are carried out through a claims mechanism and compensation in accordance with established procedures. However, strengthening prevention efforts through improved operational management is still needed to minimize potential violations of legal obligations. Several operational obstacles that could potentially lead to cargo irregularities remain in practice. These obstacles include limited aircraft cargo capacity due to prioritizing passenger flights, reliance on passenger flight schedules, and suboptimal coordination with supporting partners, particularly cargo agents. Frequently encountered issues include discrepancies between reservation data and the condition of incoming goods, the use of substandard packaging, and incomplete or insufficient explanations in shipping documents.

From a business law perspective, irregular cargo not only impacts operational performance but also has legal consequences in the form of company liability to service users. Garuda Indonesia Cargo Semarang has generally strived to fulfill its compensation obligations in accordance with applicable regulations. This demonstrates that managing irregular cargo needs to be understood as not only operational but also closely related to the company's legal risk management. Therefore, integrating operational management with an understanding of business law is crucial in comprehensively managing irregular cargo.

## Recommendations

Based on the conclusions above, the following recommendations can be implemented by management to minimize irregular cargo:

1. Ensure that compartment space allocated for air cargo is based on passenger capacity and estimated baggage allowances on the day before departure to prevent overbooking.
2. Improve coordination with cargo agent partners and ground handling regarding cargo compartment space, reservation data, and packaging standards in accordance with SOPs to minimize damage and loss at transit stations and destinations, as well as ensuring the completeness of shipping documents.
3. Monitoring of agent partners' compliance standards is carried out periodically, both through outreach and field monitoring regarding packaging standards and compliance with product contents.
4. Claims and compensation payment mechanisms must also be monitored and evaluated to ensure they are prompt, transparent, and in accordance with standard operating procedures (SOPs) to avoid ongoing complaints from shippers and agent partners.

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