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The Digital Revolution in Air Cargo: **How Technology is Transforming Revenue Management**

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The Evolution of Air Cargo

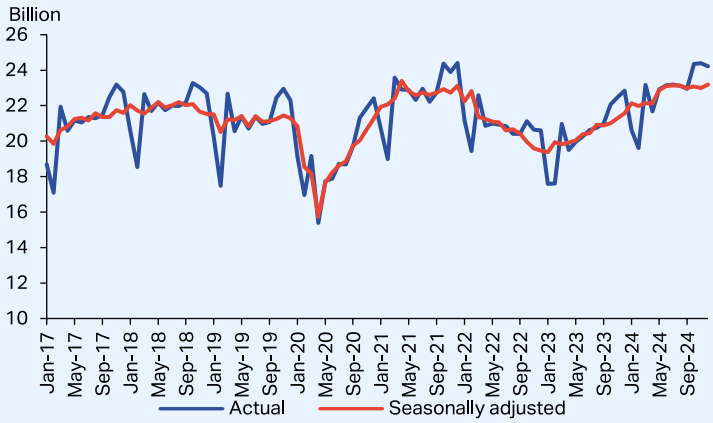
The air cargo industry stands at an inflection point. What began as an ancillary service to passenger aviation has evolved into the backbone of global commerce, accelerated by the seismic shifts of the COVID-19 pandemic and emerging digital transformation imperatives.

While airlines have historically operated as global organizations well-versed in the complexities of pricing and demand forecasting, their business models were fundamentally passenger-first, with cargo operations often treated as secondary revenue streams utilizing available belly space in passenger aircraft.

11.3%

The pandemic fundamentally transformed this paradigm, with demand for air cargo surging and continuing to grow - rising by 11.3% in 2024 compared to 2023, surpassing its previous high in 2021.[1]

Industry CTK, billion



Source: IATA Sustainability and Economics using data from IATA Information and Data - Monthly Statistics

(for full details, see Reference 1)

Air cargo market in detail - December 2024

	World share [1]	December 2024 (% year-on-year)				December 2024 (% year-to-date)			
		CTK	ACTK	CLF (%-pt)	CLF (level)	CTK	ACTK	CLF (%-pt)	CLF (level)
TOTAL MARKET	***100.0%***	**6.1%**	**3.7%**	**1.0%**	**47.3%**	**11.3%**	**7.4%**	**1.6%**	**45.9%**
Africa	*2.0%*	-0.9%	1.8%	-1.1%	41.5%	8.5%	13.6%	-2.0%	41.8%
Asia Pacific	*34.2%*	8.4%	6.4%	0.9%	49.1%	14.5%	11.3%	1.3%	47.2%
Europe	*21.5%*	5.1%	3.7%	0.8%	56.7%	11.2%	7.8%	1.6%	53.7%
Latin America	*2.9%*	10.9%	8.4%	0.8%	33.5%	12.6%	7.9%	1.5%	36.6%
Middle East	*13.6%*	3.3%	0.2%	1.4%	47.3%	13.0%	5.5%	3.1%	46.9%
North America	*25.8%*	5.3%	2.1%	1.3%	42.1%	6.6%	3.4%	1.2%	40.3%
International	***87.3%***	**7.0%**	**5.2%**	**0.9%**	**52.5%**	**12.2%**	**9.6%**	**1.2%**	**51.3%**
Africa	*2.0%*	-0.8%	1.5%	-1.0%	42.8%	8.5%	13.4%	-1.9%	42.9%
Asia Pacific	*30.6%*	7.9%	8.8%	-0.4%	54.5%	14.4%	14.8%	-0.2%	54.5%
Europe	*21.0%*	5.2%	3.6%	0.9%	58.1%	11.3%	8.2%	1.6%	55.6%
Latin America	*2.5%*	12.0%	10.1%	0.6%	37.5%	11.7%	9.3%	0.9%	40.8%
Middle East	*13.6%*	3.4%	0.1%	1.5%	47.6%	13.0%	5.5%	3.1%	47.3%
North America	*17.5%*	10.7%	5.4%	2.5%	51.5%	9.3%	6.4%	1.3%	48.0%

Note 1: % of industry CTKs in 2024

Note 2: the total industry and regional growth rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in which the carrier is registered; it should not be considered as regional traffic. Historical statistics are subject to revision.

(for full details, see Reference 1)

Alongside the pandemic, several catalyzing moments have also helped reshape the industry landscape:

E-commerce growth

Air cargo yields increased on average 10.6% YoY since 2019 - a rise attributed partially to "booming e-commerce" between Asia, North America and Europe.[2]

Supply chain vulnerabilities

Disruptive incidents such as the Suez Canal blockage demonstrated fragility and led companies to prioritize air cargo for critical shipments

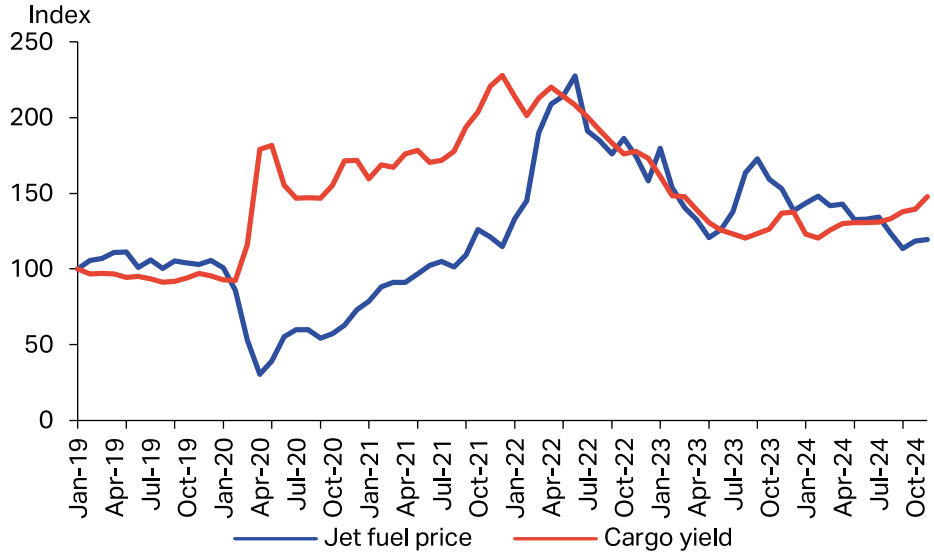
Trade volatility

Ongoing tensions between major economies have created volatile demand patterns, with air cargo serving as a key adjustment mechanisms

Increased collaboration and partnerships

Airline-to-airline – or interline – partnerships have expanded profitable network coverage by enabling carriers to share capacity and routes. These collaborations, along with intermodal transport options like road feeder services, extend the reach of air cargo operations beyond airports

Jet fuel price and air cargo yield (with surcharges), global index, Jan 2019 = 100



Source: IATA Sustainability and Economics using data from IATA Jet fuel price monitor, CargoIS

(for full details, see Reference 2)

The New Digital Frontier

All told, these moments have revealed air cargo's strategic importance beyond passenger aviation support. They also served as a catalyst for digital transformation initiatives, such as:

- The emergence of sophisticated B2B digital booking platforms
- The rise of forwarder-airline digital interactions
- An evolution from simple capacity inquiries to integrated planning systems that set the stage for technology-driven revenue optimization

To capitalize on these opportunities, airlines must navigate the complexities of multi-channel distribution, dynamic pricing, capacity risk management, and operational integration while maintaining profitability and service quality.

In this e-book, we will cover:

- The five biggest obstacles holding back air cargo revenue growth
- Effective approaches for navigating those challenges in the new digital frontier
- The impact and resultant opportunities that revenue optimization technology offers to air cargo organizations

Chapter 1:

Signs Your Cargo Revenue Process Needs a Digital Upgrade

Air cargo is a high-stakes revenue engine facing relentless pressure from digitized competitors, dynamic markets, and increasingly complex customer demands.

Yet many cargo operations remain stuck in reactive, spreadsheet-driven approaches. But in air cargo, standing still is falling behind.

If your cargo revenue management looks the same as it did five years ago, you might notice these red flags:

- Static forecasting that can't adapt to global disruptions or volatile demand
- Manual pricing processes with limited ability to account for cargo diversity or service-level value
- Disjointed or siloed systems across commercial, operational, and network planning teams
- Missed uplift opportunities due to lack of real-time decision support
- Slow response times that prevent you from capitalizing on emerging market shifts

Chapter 2:

Untangling the Digital Web

The modern air cargo industry operates within a complicated web of interconnected systems, stakeholders, and processes. This complexity, however, often results in disconnects that undermine efficiency, transparency, and agility across global logistics ecosystems.

Challenge: Systemic Disconnects in Global Logistics Ecosystems

A typical international air cargo shipment involves interactions with airlines, freight forwarders, ground handling agents, customs authorities, and shippers – each of which often maintain separate data systems. This creates multiple sources of truth, increasing error rates and reducing visibility, especially when considering:

- Operational complexity, with multiple touchpoints, varying service levels, and inconsistent data standards
- Commercial complexity, with diverse pricing models, contract structures, and revenue recognition methods
- Regulatory complexity, with varying compliance requirements across jurisdictions and cargo types

While interline and intermodal partnerships offer potential for expanded reach and efficiency, the real challenge lies in structuring and managing these collaborations profitably, ensuring that data and value flow seamlessly across the ecosystem.

Approach: Strategic Integration Across Stakeholder Networks

The solution requires strategic collaboration across entire stakeholder networks. Leading airlines are implementing several key strategies, such as:

- API-first architectures that allow for data exchange with external partners while maintaining internal system flexibility
- Analytics platforms capable of creating "digital twins" of cargo operations[3], which provide real-time visibility across the entire logistics chain
- Comprehensive operational dashboards that integrate data from multiple sources
- Blockchain technology that can create data-sharing networks with immutable transaction records

Impact & Opportunity:
Empowered Collaboration and Competitive Responsiveness

While there is already industry-wide intent to create a single, shared record for shipments through the IATA ONE Record Initiative[4], organizations will nonetheless need to take steps to boost transparency for all stakeholders to ensure they can achieve and maintain a competitive edge. In doing so, they can realize:

- Reduced processing time
- Fewer data-related errors
- Enhanced market agility through real-time collaboration

Chapter 3:

Forecasting the Unpredictable

The air cargo industry operates in an extremely volatile environment, where traditional forecasting models struggle to keep pace with rapid market shifts and frequent significant disruptions, of which 25% of organizations now face at least 10 per year[5]. Rather than relying solely on prediction, leading players are building disruption response into the core of their operating models.

In this chapter, we explore how market-sensing AI and scenario-based planning enable cargo operators to navigate uncertainty – and eventually use it to their advantage. From dynamically reallocating fleet capacity to deploying just-in-time (JIT) deliveries as a form of strategic disruption, the ability to sense, respond, and adapt is the difference in earning a competitive edge.

Challenge: Instability in Global Freight Availability

Forecasting in air cargo has traditionally relied on internal data, such as bookings, historical trends, and route performance. But today's volatility is largely external and increasingly difficult to predict, shaped by factors such as:

- Macroeconomic fluctuations, including inflation, fuel prices, and interest rates
- Geopolitical disruptions, from trade conflicts to shifting regulations and regional tensions
- Sudden demand spikes or drops triggered by global events like pandemics or extreme weather
- Fragmented market signals across regions and customer segments

This turbulence is forcing airlines to shift from mostly static network structures to dynamic ones, where they can dynamically adjust routes, capacity, and resources in response to changing fundamentals. While necessary, this shift creates new challenges in visibility, planning, and execution.

Approach: Adaptive Forecasting with Market-Sensing AI

To stay ahead of these shifts, air cargo operators are investing in adaptive forecasting tools that allow them to move beyond static demand planning. These systems fuse internal data with real-time external signals to dynamically recalibrate demand forecasts.

They must also account for evolving customer needs and service expectations, which vary across regions and segments. Fragmentation across markets requires granular insights and flexible strategies.

Such approaches to cargo demand typically rely on the following:

- AI-driven market sensing, integrating data from trade flows, economic indicators, and weather disruptions
- Continuous forecast recalibration, rather than fixed monthly or quarterly cycles
- Scenario planning capabilities, enabling preparation for multiple future outcomes
- Cross-functional alignment, ensuring commercial and operational teams act on shared, real-time intelligence
- Consideration of exceptions, seasonal surges, and special events, which can have diverse impacts on different markets

Impact & Opportunity:
Resilient Capacity Planning and Faster Market Response

With adaptive forecasting in place, air cargo businesses can shift from firefighting to forward-planning. The benefits are strategic and scalable:

- Greater resilience, with capacity aligned to evolving market conditions
- Faster response times, allowing businesses to seize emerging opportunities
- Reduced operational waste, from over-allocation or misjudged demand swings
- Improved customer satisfaction, thanks to more reliable service and lead times

Ultimately, adaptive forecasting enables organizations to navigate uncertainty with confidence by building the agility to thrive within uncertainty.

Chapter 4:

Navigating Capacity Risk

As global trade flows fluctuate and customer expectations rise, managing capacity has become a delicate balancing act of risk, trust, and profitability. Traditional approaches to booking and allocation are proving insufficient in an environment where disruptions are the norm rather than the exception.

In this chapter, we'll look at how technology is reframing capacity risk into a lever for growth – and how air cargo carriers can use dynamic tools to make smarter, faster decisions at scale.

Challenge: Strategic Risk in Capacity Commitments

Committing capacity for air cargo organizations can be a high-stakes financial risk. Whereas overbooking in the past has been used to hedge against no-shows, today it can amplify exposure in the face of volatile demand and disrupted supply chains.

Key challenges include:

- Overbooking as a liability rather than a safety net, risking service failure and damaged customer trust
- High financial stakes tied to unsold or underutilized capacity
- Limited visibility into partner performance, leading to mismatches between supply and demand
- Fragmented legacy systems, which hinder real-time insight and adaptability – especially as static market and network structures are challenged, rendering old models ineffective and increasing pressure to balance capacity with fluctuating demand

Approach: Real-Time Risk Mitigation with Dynamic Decision Engines

To navigate these risks, air cargo carriers are increasingly adopting dynamic decision-making technologies that enable real-time adjustments across booking, pricing, and partner selection.[6]

Modern, data-driven approaches to air cargo capacity involve challenges including:

- AI-powered decision engines that evaluate variables like route performance, demand volatility, and partner reliability
- Scenario-based planning tools, allowing for agile reallocation of capacity
- Integrated risk analytics, which inform business decision-makers about trade-offs between overbooking risk and revenue potential
- Automation of performance-based commitments and shared risk models, reducing manual intervention and bias, and encouraging ecosystem-wide collaboration in place of one-sided market exposure for airlines

Impact & Opportunity: Confident, Data-Led Decision-Making

By embedding dynamic risk management into revenue strategies, air cargo businesses can unlock a powerful competitive edge.

Benefits include:

- Smarter capacity allocation, leading to higher yields and reduced spoilage
- Stronger partner relationships, built on reliability and transparency
- Empowered commercial teams, equipped with real-time insights
- Enhanced financial outcomes, from optimized pricing to better margin control

This approach turns risk into opportunity. The ability to act swiftly and intelligently in the face of uncertainty is becoming the defining trait of profitable, digitally mature air cargo organizations.

Chapter 5:

Unlocking Revenue from Complexity

As cargo profiles diversify and market conditions shift, some pricing models might falter. A mix of e-commerce parcels, pharmaceutical shipments, perishables, and oversized freight introduces further complexity – and with it, pressure to optimize pricing for volume as well as value.

This chapter explores how intelligent revenue orchestration empowers carriers to navigate this complexity by focusing on proactive, margin-focused strategies.

Challenge: Revenue Pressure from Cargo Diversity and Market Agility

Modern cargo operations are not dominated by standardized freight. Rising demand for customized services and products – such as those incorporating temperature control, priority handling, last-mile visibility, or a mix of all the above – is reshaping revenue dynamics.

Challenges here include:

- Increased product diversity, making standardized pricing ineffective
- Tighter margins due to rising service expectations and competitive pressures
- Rapid market shifts, such as e-commerce spikes or regional disruptions
- Under-leveraged premium services, which are often priced without strategic differentiation

Approach: Intelligent Revenue Orchestration for Diverse Cargo Profiles

To rise above pricing pressures, carriers are adopting intelligent orchestration systems – platforms that dynamically match cargo type, customer value, and market context to pricing strategy.

Key elements of this approach include:

- Value-based pricing models, aligning rates with service level and customer segment
- AI-enabled orchestration tools, managing cargo mix, routing, and service bundling in real time
- Dynamic prioritization, favoring high-yield cargo in peak or constrained environments
- Cross-functional pricing alignment, ensuring commercial, operations, and finance teams are unified

Impact & Opportunity: Stronger Margins and Better Market Fit

In a complex market, precision and speed are essential. Intelligent revenue orchestration makes it possible to impactfully deliver both. Once that orchestration is in place, air cargo companies can unlock new revenue streams and defend margins amid increasing complexity.

The numbers speak for themselves: organizations that take steps to optimize logistics pricing strategies report revenue increases by as much as 4%, which can in turn result in a 60% increase in profit.[7]

Additional benefits here include:

- Optimized cargo mix, favoring profitable shipments and premium services
- Improved market segmentation, enabling tailored offers for high-value customers
- Greater pricing agility, with the ability to respond quickly to market shifts
- Enhanced brand positioning, built on service excellence and value delivery

Chapter 6:

Closing the Coordination Gap

While air cargo rides in the belly of passenger aircraft, its planning is too often siloed from the rest of the airline. The result is suboptimal use of space, missed revenue opportunities, and conflicting priorities.

As capacity becomes more constrained and cost pressures intensify, carriers must move toward unified planning models that treat cargo and passengers as part of one system. This chapter dives into how operational intelligence can close that gap and unlock new value.

Challenge: Inefficient Integration Between Passenger and Cargo Operations

Cargo is frequently an afterthought in passenger-first planning environments. This leads to missed synergies and misaligned objectives.

The core challenges include:

- Siloed systems and workflows, leading to underutilized belly space
- Lack of real-time coordination, especially for last-minute cargo or reroutes
- Conflicting KPIs between cargo yield and passenger load priorities
- Limited shared visibility, across scheduling, load planning, and service delivery

Approach: Unified Operational Intelligence for Mixed-Use Planning

Leading carriers are now investing in integrated planning systems that combine cargo and passenger data to drive smarter, holistic decisions. This results in enterprise-wide visibility and integration that can break down internal silos and maximize overall asset utilization.

Strategic levers include:

- Unified dashboards, combining load forecasts, availability, and revenue optimization
- AI-driven planning engines, that balance cargo and passenger needs in real time
- Collaborative planning processes, involving both cargo and network teams
- End-to-end visibility, across booking, routing, ground handling, and aircraft loading

Impact & Opportunity: Operational Synergy and Higher Utilization Rates

Integrated planning through the use of cross-functional digital planning tools boost utilization as well as enable new ways of working and competing.

Results include:

- Increased cargo uplift, through smarter load planning and belly optimization
- Reduced waste and idle time, improving flight profitability
- Enhanced cross-departmental agility, with shared data and faster decision-making
- Support for new business models, such as dynamic freighter-passenger hybrids or just-in-time routing

By closing the coordination gap, airlines can turn every flight into a fully optimized asset that serves both passengers and freight with maximum efficiency.

Prepare for the Future of Air Cargo with easie

The winners in air cargo will be those who digitize decisively, creating revenue strategies that are equally smart and scalable.[8] easie helps air cargo organizations move from outdated tools to real-time, revenue-optimized decision-making, so you can benefit from:

- Dynamic pricing and capacity management, powered by AI
- Integrated workflows that connect sales, revenue management, and operations
- Faster time to value, with a platform that's quick to deploy and easy to use
- Scalable intelligence that supports data-led growth and better service differentiation

Ready to modernize your ACRM strategy?

Shifting to digital tools and smarter workflows gives air cargo companies a clear edge. They will be able to make faster decisions, achieve better margins, and provide stronger customer service. The sooner you start, the better positioned you'll be – and the more value you'll unlock.

Get in touch **with easie today to see how our AI-powered revenue management solution can help you unlock growth and stay ahead in the digital era.**

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