

Benefits of Diversification into Airfreight for Passenger Airlines

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Abstract—The benefits gained by airlines based outside Russia as a result of diversification into airfreight are analyzed. On that basis, a model is developed to describe the interaction of the subsidiary freight line with the parent corporation and external parties by means of the international system of reciprocal payments. This approach would permit more effective management of all freight operations of Russian airlines.

Keywords: air transport, airlines, airfreight, market share, diversification, payment systems, electronic document management, cargo planes

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With the growing export of expensive and time-sensitive high-tech products, the prospects for airfreight are good. As the value of cargos increases, rapid delivery becomes a priority. For example, high-tech products constitute 31% of the total tonnage exported from Asia to Europe, but 65% of the total value of those exports. Airfreight is subject to not only economic but political variables. The profitability of airfreight companies is intimately tied to economic growth and to customs tariffs. There is a close correlation between trade volume and the growth of freight carriers. For example, the mean annual growth of airfreight companies is 4.3%, thanks to the 3.6% growth in world trade over the last 20 years [1].

The airfreight market is dominated by integrated and freight airlines, which, operating with forwarders, logistics and transport companies, and their agents, account for 90% of total global tonnage. Shares of the airfreight market are 35% for integrated Asian companies, 15% for their European counterparts, and 5% for integrated United States companies. Nevertheless, the market share of integrated express carriers is constantly growing, significantly outpacing the competing sectors.

The benefits of diversification by moving into integrated and express freight transportation are evident from the experience of companies such as Lufthansa, Air China, Singapore Airlines, Emirates, Air France—KLM, and Finnair, which now have successful airfreight subsidiaries (Lufthansa Cargo, Air China Cargo, Singapore Airlines Cargo, Emirates SkyCargo, Martinair Holland N.V., and Finnair Cargo, respectively), which operate specialized cargo planes. These companies account for around 40% of the total airfreight market.

One approach to spreading the risks of air transportation is the system of discounts for freight forwarders when orders for transport capacity are placed far in advance. Major specialized cargo airlines include Federal Express (FedEx), United Parcel Service (UPS), and Cargolux, which employ the Cargo Accounts Settlement Systems (CASS) developed by the International Air Transport Association (IATA) so as to standardize the conditions of mutual payments between airlines and partners such as expeditors, agents, logistics companies, and firms providing ground transportation.

The CASS system ensures high levels of contract fulfillment: contracts with airlines are concluded through IATA, which acts as their authorized representative. Agents must also be accredited with the association. Financial institutions providing payment guarantees also participate in the system.

At present, the only Russian airfreight company participating in the CASS system is Aeroflot, whose banking partner with IATA is VTB. Note that the Aeroflot Group lacks specialized cargo planes and currently has no dedicated freight carrier, although the subsidiary Aeroflot Cargo operated between 2006 and 2010 and accounted for 35% of the airfreight market on routes between Russia and both Asia and Europe [2].

Cargo planes on these flights followed routes over Russian territory. In addition, freight was carried in the holds of Aeroflot passenger aircraft to destinations within the company's entire network.

It is expedient for subsidiaries within integrated Russian airlines to conduct business and organize their relations with external agents of freight carriers

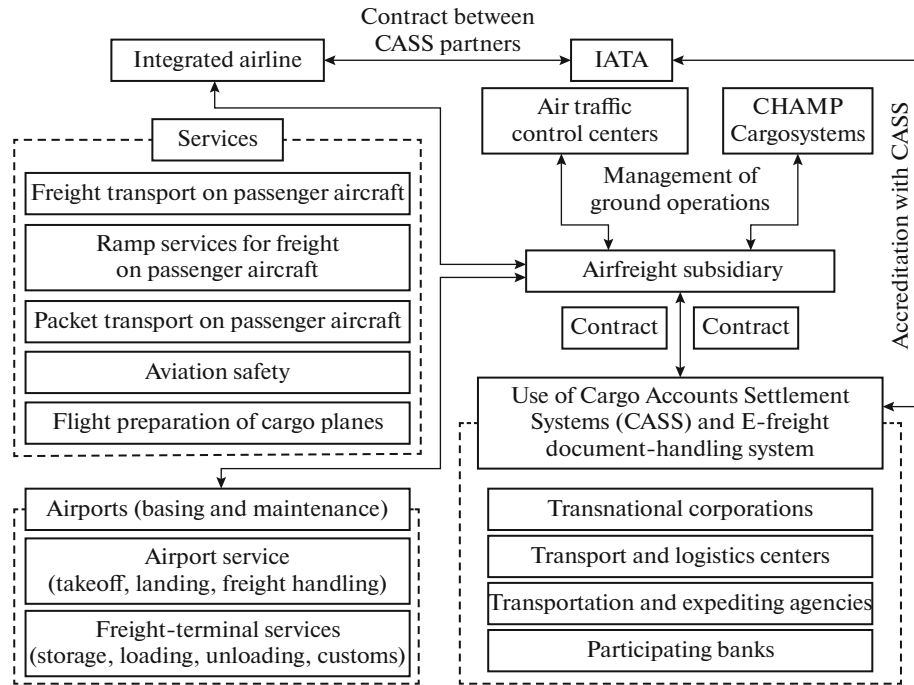


Fig. 1. Interactions of a subsidiary airfreight company with the integrated parent company and external partners.

on the basis of the CASS system and the E-freight electronic document-handling system. According to IATA estimates, airfreight companies around the world save a total of \$1.2 billion annually by dispensing with paper documents and using the E-freight system.

In Fig. 1, we show a model of the interactions of a subsidiary airfreight company with the integrated parent company and external partners when freight operations are managed on the basis of the CHAMP system, which governs all freight operations of airlines, including revenue and warehouse management. Standardized messaging is employed within the system. That greatly simplifies custom clearance of the cargo. The system also meets all relevant financial reporting standards, including the IATA recommendations. That ensures compatibility with the CASS system.

The economic relations of the subsidiary are based on contracts and the principle of direct financial settlement for the services provided. Particular attention is needed in improving the corporate relations of the subsidiary and parent airline in terms of cargo shipments in the hold of passenger aircrafts, with appropriate recordkeeping [3].

Since March 2020, demand for air transportation has fallen sharply on account of the COVID-19 pandemic. One consequence is a sharp drop in revenue and cash flow for all stakeholders (airlines, airports, air traffic control services, aircraft manufacturers, and maintenance companies). In these circumstances, some Russian airlines have begun to ship cargo in empty passenger planes [4].

The current forecast of the European (North Atlantic) office of the International Civil Aviation Organization (ICAO) is that the development of the airfreight market will play a significant role in the post-COVID recovery of the global supply network and, in the long view, the global economy.

This calls for smart balancing of diversification and standardization of the fleet so as to provide maximum operational flexibility. One approach to maximizing the flexibility and competitiveness of Russian airlines is to create an airfreight subsidiary, so as to have a presence across all segments of air transportation.

Thus, the company's fleet must include specialized cargo aircraft with different capacities. Relationships must be developed with forwarders and potential customers for all types of small, heavy, and superheavy cargos, on domestic and global routes.

Russian airlines are not sufficiently competitive globally in terms of their aircraft fleet, their sales system, their payment systems, the management of freight operations, and the development of airport infrastructure. At present, the Russian airfreight market is divided between expeditors such as Panalpina, Schenker, Nippon Express, and Kuhne & Nagel, which provide more than 60% of international freight transportation. The strategic development of airfreight in Russia demands the creation of a Russian expediting agency capable of facilitating the expansion of domestic and global freight transportation by Russian airlines.

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