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## **STRUCTURE AND ANALYSIS OF DOMODEDOVO AIRPORT.**

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The air transport industry is a global manufacturing and transportation industry that transports passengers and freight around the globe. Each year air transport carries about one billion passengers, with the total flight time of all aircraft over 10,000 million kilometers, which is about one billion passenger journeys in one year.

To ensure the safe operation of international air transport, a comprehensive network of airports is needed to ensure the safety and regularity of air traffic, as well as the quality of ground handling services for air travel.

Today, the airport network is one of the most important components of the system of international air transport. Airports are strategically and socially important state facilities.

There are currently more than 16,000 airports around the world. Among the main functions of an airport is to provide services to passengers, airline staff and cargo owners, the airport provides jobs for thousands of residents of the surrounding cities. This contributes to the development of their economy in business or cultural and social development; tourism and other activities.

Efficiency and competitiveness of an airport depend on the quantity and quality of services provided.

An airport is a complex technological complex, which operates and provides ground support services for air transportation. The county organization of airports is characterized by a large number of different units, which perform various functions and the cost of which forms the cost of the service as a whole.

The economic performance of the structural units of the airport are closely interrelated and, as a result, have a significant impact on the final cost of airport services.

Every modern airport has at its disposal all the above-mentioned services. Airport Domodedovo is not an exception. It is the second largest airport in Russia in terms of passenger traffic. This airport has the status of an international, federal airport. It is among the twenty busiest airports in the European part of the continent and has an annual passenger traffic of about 29 million people, which, according to the classification of the annual passenger traffic, allows you to classify it as an off-class airport (over 10 million passengers per year). Domodedovo is the base airport of the world's largest aviation alliances Star Alliance and oneworld in Russia.

Every day the airport serves domestic and international flights. The airfield of this airport is equipped with two runways covered with synthetic and reinforced concrete materials. The distance between the runways is sufficient for simultaneous

takeoff and landing. The runways meet all modern aviation standards and requirements, which, as a consequence, makes it possible to receive and dispatch both short and medium-length and long-range aircraft. Another important advantage is the ability to accept heavy transport aircraft, such as IL-76 and its modifications.

It is also worth noting that Domodedovo airport is not the only one in Moscow. This airport is a part of the Moscow Aviation Hub, which includes the largest airports of Moscow, such as the aforementioned Domodedovo, Vnukovo, Sheremetyevo, as well as smaller airports of Moscow and the Moscow region.

Taking into account all the factors mentioned above as well as the fact that Domodedovo airport has all conditions for international air carriers to use Russian transit potential, has attracted investments by transferring the airport as a state property to a private person for a long term, has high efficiency of aviation services management, high theoretical and practical capacity, we can conclude that this airport as part of the Moscow Aviation Hub plays a significant role in the economy of Moscow. This is achieved also due to the generation of new jobs and tax revenues to the budget.

Domodedovo airport is the main Moscow hub of one of the world's largest alliances - Star alliance and Oneworld

A hub is an airport used by airlines and aviation alliances as a passenger transfer point. Such an airport must have sufficient technical equipment of internal services and meet certain conditions, allowing regular flights without significant delays.

As mentioned above, Domodedovo International Airport is the only airport in Moscow and the Moscow region, which practices the simultaneous use of two existing parallel runways. This is possible due to the quite big distance between them - 2 km. After the reconstruction of one of the runways Domodedovo became the first airport in Russia, which is able to accept the Airbus A380 - the largest, series-produced four-engine airliner in the world. The first artificial runway has dimensions of 3,500 m × 60 m, the second runway has larger dimensions than the first, namely 3,794 m × 60 m.

Both runways are capable of receiving and dispatching aircraft of all types currently in operation (with instrument landing equipment) in minimum horizontal visibility and even in bad weather conditions.

Domodedovo Airport's passenger terminal is the largest structure with an area of 135 thousand m<sup>2</sup>. The airport building has the latest infrastructure, is regularly repaired and is comfortable for passengers.

Moscow (Domodedovo) airport complex includes 7 enterprises:

- RUNWAY DOMODEDOVO COMPLEX;
- DOMODEDOVO AIRPORT HANDLING (DAH);
- DME KATHERING SERVICE (DCS);
- DME CARGO TERMINAL;
- DOMODEDOVO FUEL SERVICES (DFS);
- DOMODEDOVO AIRPORT DEVELOPMENT (DAD);
- DOMODEDOVO CONSTRUCTION MANAGEMENT (DCM);

- DOMODEDOVO SECURITY (DS).

As for ownership structure of Domodedovo airport, it should be noted that this air terminal complex, which includes 332 properties, is the only private airport in the Russian Federation.

The ownership structure is a set of functional, specialized units and individuals, which are connected to each other in the process of work, planning tasks and goals.

The ownership structure of Domodedovo International Airport consists of two holdings with one beneficial owner. The beneficiary, according to public sources, is Dmitry Kamenshchik. The first holding is Domodedovo airport, which includes several enterprises. Another holding is land and a special conurbation around the airport called Aerotropolis. It should also be noted the company Asienda Investments Limited, which is the owner of a number of real estate properties of Domodedovo airport. The relevant information is contained in the Unified State Register of Immovable Property Rights. Миссией Международного аэропорта Домодедово является становление лучшим аэропортом-хабом в Европе по качеству обслуживания.

The general objective of Domodedovo Airport is to provide transportation and passenger transportation services of maximum reliability and quality.

The management's strategic plan includes tasks aimed at implementing the mission and getting closer to the general goal. Such aspects can be noted in the plan as:

- Attracting and retaining the maximum number of clients in the long term;
- Maintain contemporary methods of structuring;
- Providing all services that meet modern requirements;
- Creation of a favorable atmosphere and attractive cost of services;
- Aviation security providing;
- Ensuring the safety of life and health of passengers, crew and airport personnel when servicing aircraft, as well as preventing attempts to cause economic damage to the airport;
- Ensuring economic sustainability and safety for the complex of facilities designed for the reception, dispatch of aircraft and servicing of air traffic in order to promote it.

All organizations exist within an external and internal environment. The external and internal environment of a company's success, impose some limits on operational actions and, to some extent, any action of the firm is possible only when the environment allows it.

The study of the internal environment of the firm gives the boss the opportunity to assess the internal means and capabilities of the company. By identifying the strengths and weaknesses of the company, management has the opportunity to increase and strengthen the competitive advantage and thus prevent the formation of likely problems. As with the external environment, it is the task of

the firm's strategic management to maintain and improve the aspects that enhance the company's competitive advantage in the long run.

The internal environment of an enterprise is a set of agents working within the enterprise, and their relations formed in the process of financial and economic activity. The internal environment of an enterprise is formed depending on its mission and goals, which are largely determined by the external environment. The internal environment of an enterprise includes people, equipment, technology, information, and production and management system

Domodedovo International Airport realizes its activity on the market of airport services of Moscow Aviation Hub. The Russian air transport infrastructure is an integral part of the global transport system and is partially exposed to the risks that affect the aviation industry in today's world of global economy, growing intercontinental cargo traffic and increased population mobility. These are the threats of global and regional economic crises, rising energy prices, and the danger posed by international terrorism. The Russian airport services market is currently characterized by the following factors:

- a high degree of competition;
- Insufficient development of land infrastructure;
- seasonality of demand and significant influence of macroeconomic factors (living standards, degree of business activity, etc.).

In its activities, the Domodedovo airport complex

The volume of passenger and cargo shipments may turn out to be lower than expected. These volumes may depend on factors beyond the company's control, such as the attractiveness of the capital as a tourist and business center, which, in turn, depends on the level of security, political and economic stability in Russia, as well as the general state of the Russian and world economy. It is also noteworthy that the formation of the aviation sphere in Russia has recently significantly increased the pace of its development, i.e. the size of air and cargo transportations, including those on international lines. Thus the dangers of deterioration in the sphere are decreasing in the shortest perspective.

In order to know the internal sphere of Domodedovo airport, the SWOT-analysis was preferred. SWOT-analysis supposes the analysis of weaknesses and strengths as well as dangers and opportunities of an enterprise. In addition, weaknesses and strengths are part of the internal environment, while threats and opportunities are part of the external environment of the organization.

#### STRENGTHS:

- Positive reputation of the airport among consumers and customers;
- Equipped with equipment that meets the standards;
- Effective management and state supervision;
- The presence of highly qualified professional staff at all management positions;
- The ability of the runway to accommodate all types of aircraft.

#### WEAKNESSES:

- Long distance from the center of Moscow;

- Staff turnover;
- High wear and tear (more than 50%) of the runways.

The total amount of air traffic through the Moscow air hub, and, in particular, through Domodedovo airport, is usually divided into the following three key categories:

- 1) Air transportation of passengers;
- 2) Air freight traffic;
- 3) Air transportation of mail.

The following graphs show the dynamics over the last five years. Due to the lack of official information for the year 2022, the information below will cover the period from 2016 to 2021.

Fig. 1 shows information on passenger traffic at Domodedovo Airport.

Fig. 2 provides information on the amount of cargo handled at Domodedovo Airport.

Fig. 3 presents information on the number of serviced mail at Domodedovo airport.

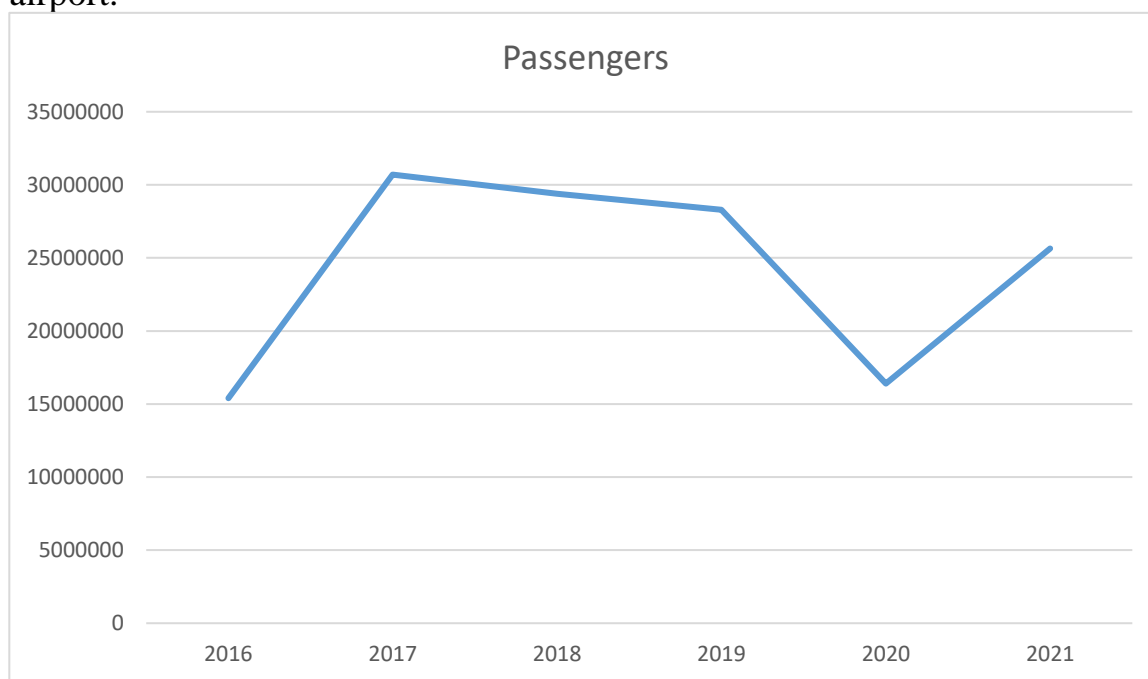


Fig.1 Passenger traffic at Domodedovo Airport in 2016-2021.

Between 2016 and 2017, a sharp increase in passenger traffic was noticeable, after which, between 2017 and 2019, a slight natural decline in passenger traffic could be observed. In 2020, there was a sharp decline in passenger traffic. At Domodedovo Airport, the decline was 42%. Such a sharp decline in air traffic is associated with the pandemic COVID-19, when international traffic was completely closed for several months, and after a time, after the lifting of restrictions on flights followed strict anti-epidemiological measures. It is worth noting that the lifting of flight restrictions was not announced in all countries.

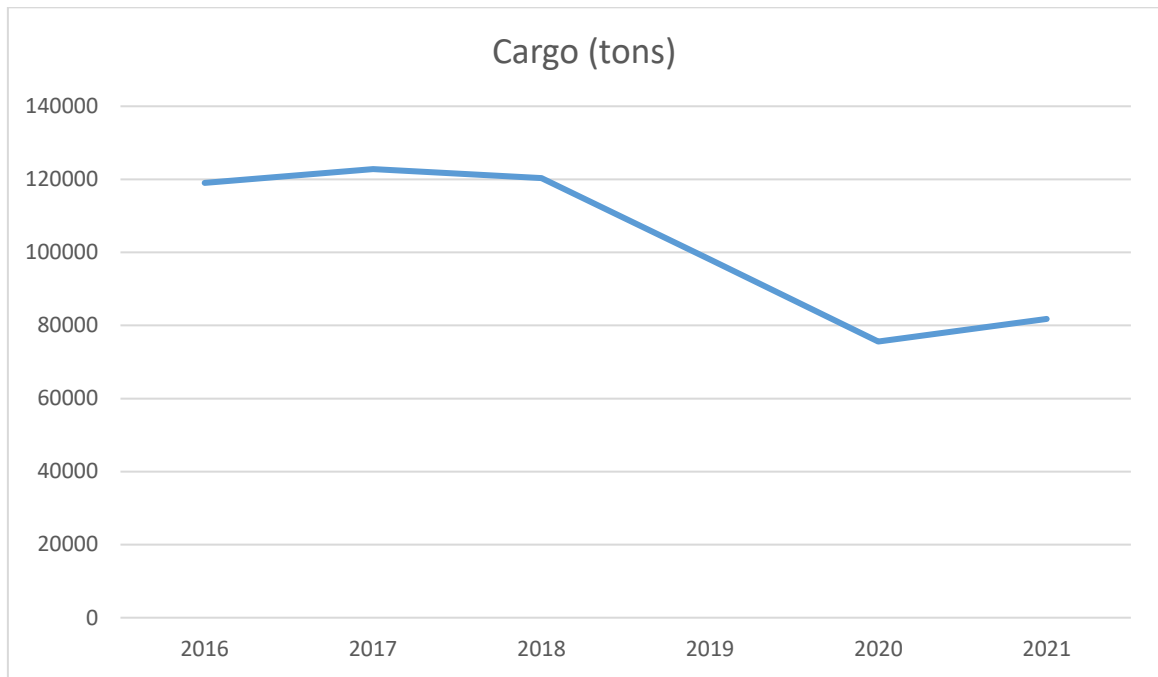


Fig. 2 Cargo served in the period 2016- 2021.

The entire period, except for the periods from 2017 to 2018 and from 2020 to 2021, saw a decrease in the number of cargoes handled. Economic sanctions imposed against Russia and the counter-sanctions imposed by Russia were factors in the decrease in cargo turnover. The sanctions implied a mutual ban on a number of goods, which resulted in a decrease in cargo turnover. A sharper reduction in cargo turnover in 2020 is associated with the pandemic COVID-19, as there was a disruption of logistics chains due to the closure of borders, the introduction of restrictive measures, which led to the suspension of many industries. On the one hand, there was nothing to deliver, on the other hand, because of COVID-19 there was an economic crisis, which led to a decrease in demand for many goods.

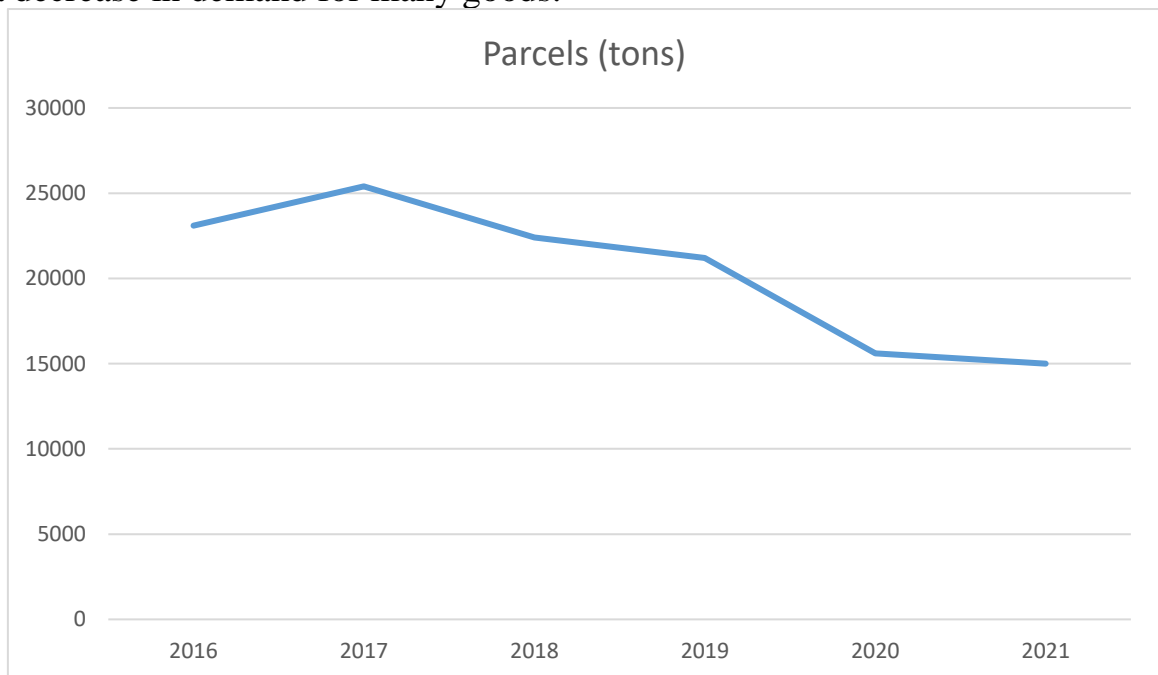


Fig. 3 parcels served between 2016 and 2021.

With the exception of the period from 2016 to 2017, there is a drop in the amount of mail served. From 2016 to 2017, there is an increase in mail served due to a surge in orders from online retailers, where mostly small items are sent as postage. Factor in the decline in mail shipments in 2019 were supply chain disruptions due to the COVID-19 pandemic and lower demand for air mail shipments due to the economic crisis associated with the pandemic.

Organizational structure of the airport:

Airport services include:

- 1) Aeronautical Information Service (AIS);
- 2) Medical Center;
- 3) Postal-Cargo Organization Service;
- 4) Aviation Safety Service (AS);
- 5) Accounting and Reporting Department;
- 6) Air Terminal Maintenance and Repair Service (ATM);
- 7) Labor and Payroll Department (LPD);
- 9) Air Traffic Control (ATC);
- 10) Emergency Rescue and Firefighting Service;
- 11) Runway service;
- 12) Service for official delegations and especially important passengers (VIP

and CIP);

- 13) Central Operations and Dispatch Service (CODPS-DCS);
- 14) Passenger Transportation Service (PTS);
- 15) Information Systems Service Department (ISD);
- 16) Special Transport Service (STS);
- 17) Fuel Service;
- 18) Planning and Economic Department;

In addition, the following additional services must function:

- 1) Information and analytical, commercial, planning and economic, legal and other administrative services;
- 2) Heat and technical support;
- 3) Operation of ground facilities;
- 4) Repair and construction site;
- 5) Environmental protection;
- 6) Material and technical supply;
- 7) Medical and sanitary;
- 8) Emergency and rescue service;

Other units, providing production and commercial activity of the airport, including non-aviation options of activity (catering, trade) subject to the creation of the material and technical base meeting certain requirements and obtaining licenses to meet the needs.

The management of the capital airport Domodedovo is realized through "DME" corporation. The group of companies includes 15 enterprises, performing their activity in the profile directions.

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