THE GROWTH OF DUBAI INTERNATIONAL AIRPORT AND EMIRATES AIRLINES

VAD Project
GROUP 5 | IST 737

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Summary:

This Tableau dashboard tells the story of the incredible growth of Dubai International Airport (DXB) and Emirates Airlines, highlighting how they became global leaders in aviation. Dubai International Airport started in 1960 as a modest facility with a sand runway, but through continuous investment and expansion, it has grown into the busiest airport for international traffic. Emirates Airlines, founded in 1985 with just two aircraft, has played a pivotal role in this transformation. From being the first airline to introduce in-seat video systems in 1992 to placing record-breaking orders for aircraft like the Airbus A380 and Boeing 777, Emirates has consistently set new benchmarks in innovation and passenger experience. Together, DXB and Emirates Airlines have shaped Dubai into one of the most connected cities in the world.

Using Tableau, we have created an interactive dashboard that visually narrates their shared journey. It highlights key milestones, such as the opening of Terminal 3 in 2008 to oversee Emirates' growth, and the introduction of Concourse A in 2013, the world's first purpose-built A380 facility. The dashboard features timelines, growth trends, and global impact metrics to provide a holistic view of how strategic planning and bold vision turned Dubai into a global aviation hub. This project is not just about data; it's about understanding the story of ambition and success that continues to connect millions of travelers worldwide.

List of Data Sources:

- Aircraft Movement A dataset containing details about the movement of aircraft over specific time periods.
- Categorized Aircraft Movement An organized version of the aircraft movement data categorized for better analysis.
- DXB Emirates (Tableau Workbook) The main Tableau dashboard file containing all visualizations and analysis.
- Emirates Fleet Size by Aircraft Type (2000-Present) A dataset highlighting the size and type of Emirates' fleet over the years.
- **Fleet Emirates Perfect** A refined dataset focusing on the details of Emirates' fleet for precise analysis.
- Flight Info Information on flight routes, schedules, and operational details.
- Passenger Movement Horizontal A horizontal layout dataset summarizing passenger movements across time.
- **Passenger Movement Perfect** A cleaned and organized version of passenger movement data for accuracy in visualizations.
- Passenger Movement Raw data on passenger movements through Dubai International Airport.
- Reshaped Aircraft Movement A reformatted dataset to enhance usability in analysis.

All of the Above data was created with reference to the researched data from: Government of Dubai - Dubai Statistics Center.



Dashboard analysis

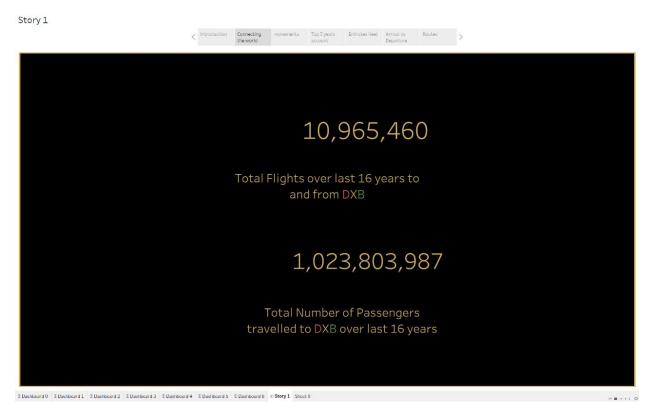
Dashboard 1:

Story 1



In this dashboard, we created a chronological timeline to highlight key milestones in the growth of Emirates Airlines and Dubai International Airport. The left panel focuses on Emirates' journey, from its founding in 1985 to its leadership in the aviation industry, while the right panel traces the development of DXB, showcasing infrastructure expansions and innovations.

Dashboard 2:



This dashboard summarizes the total flights and passenger movements over 16 years, emphasizing the scale and significance of Dubai as a global hub. The figures provide a clear snapshot of DXB's accomplishments in facilitating over a billion passenger journeys and nearly 11 million flights, underscoring its global importance.

Dashboard 3:





Here, we visualized passenger traffic trends from 2008 to 2023, showing peaks, declines, and recovery phases. The line graph and tree map illustrate how events like COVID-19 impacted movement and highlight dominant years such as 2018, while also reflecting the airport's steady recovery in recent years.

Dashboard 4:

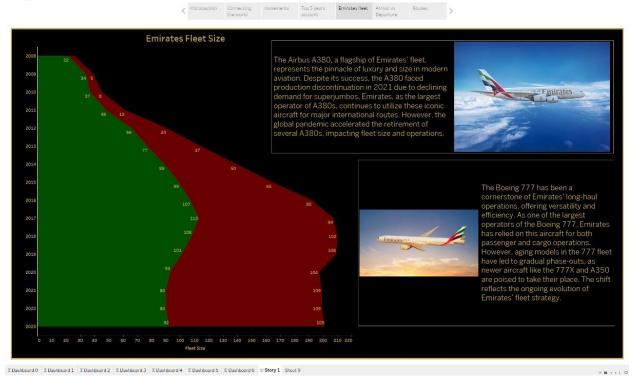




This dashboard identifies the top-performing years in terms of total flights, revealing how specific years like 2016 and 2018 accounted for a significant share of the airport's operations. Additionally, we included a comparison of scheduled and non-scheduled flights over the years to showcase operational diversity and growth trends.

Dashboard 5:

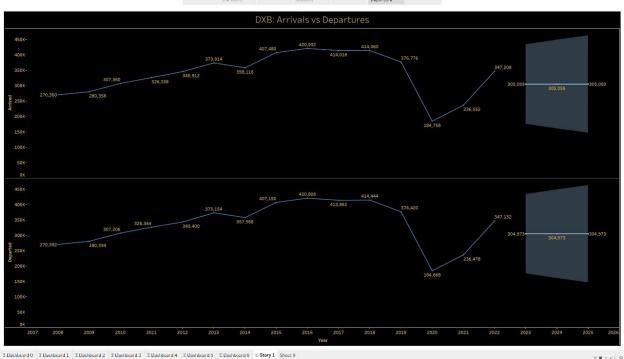




In this visualization, we focused on the evolution of Emirates' fleet, particularly the Airbus A380 and Boeing 777. The area chart reflects the changing fleet composition over time, and accompanying descriptions explain how operational, and market factors influenced fleet adjustments and strategic decisions.

Dashboard 6:

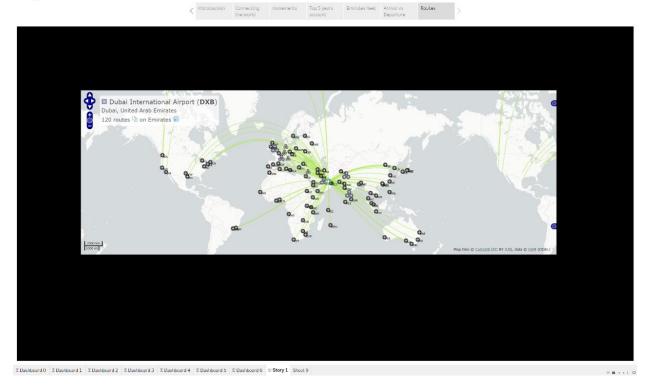




This dashboard compares the yearly trends in arrivals and departures, showcasing how DXB maintained a consistent balance of traffic over time. The line charts make it easy to see fluctuations, with a notable dip during 2020 due to the pandemic and a subsequent recovery.

Story:

Story 1



This interactive map illustrates Emirates' extensive route network, visually demonstrating how Dubai is connected to cities worldwide. Each route line represents a direct connection from DXB, highlighting its reach and the airport's role as a global aviation hub. We referred this map through google and through the site link mentioned above.

