

2018

Transition from Hub & Spoke to Point to Point

FINAL YEAR PROJECT

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Statement of Submission

This is to certify that I 'Saad Sajjad Qureshi (ID: 14007001026)' has successfully submitted the final year disquisition on June 05, 2018 highlighting "Transition from hub and spoke to point to point" at University of Management and Technology as a part of partial requirement of the Bachelor's degree in Aviation Management (BS.AM).

Resource Person

My project is completed under the supervision and declaration of **Air Commodore Khalid Farooq (Retd.)**. I spread my sincerest regards to him as his idealistic viewpoint of doing things has helped me to work with pure devotion and flexibility while concentrating on quality output.

Achievements:

Sitara -e- Imtiaz (Military), Sitara -e- Basalat.

Profile:

With the experience and learning from the PAF, he has served in various squadrons as a leader after joining PAF as fighter pilot in 1977. With more than 3000 flying hours, he has also determinedly served as an Instructor Pilot for Mirage, F-6 and FT- 5 fighter jets. The role of Assistant to Air Force Chief on Training and Education at Air Headquarters and Base Commander of a training base are just the few highlights of his life achievements.

After being retired from PAF as an Air Commodore in 2012, his role in commercial aviation has also been momentous. He has been the part of 'Shaheen Airport Services' as a General Manager for four years. Also a prosperous entrepreneur in food industry and motivational and educational leader in different universities and plat forms.

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In the name of Allah, The most Merciful and The most Benevolent.

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ABSTRACT

Traveling by air is one of the most necessary demands in today's era. Everyone is traveling country to country for the sake of business, work, job, and study or trading. When they travel they need to choose the airline to go their destination. Different airlines offer different networks and routes based on their schedules.

Airlines operate two types of network models 1. Hub and spoke, 2. Point to point. These are two systems on which airlines operate flights. Some airlines do flights on hub and spoke system and some airlines on point to point system. Mostly, legacy airlines operate flights on hub and spoke system and Low Cost Carriers operate point to point flights.

Airlines networking based the network planning and the cost they spend on the aircrafts. There are different aircrafts for hub and spoke and different aircrafts for point to point. Point to point system has its own advantages and disadvantages while hub and spoke also have both advantages and disadvantages. New airlines are also coming in the aviation industry to compete all airlines either they are doing hub and spoke or point to point operations. Most of the new airlines are going to perform point to point system because it is so feasible for their business and also for passengers.

1. Introduction

Airline Networks depends on different routes which are made by the network planning. For many Airlines, network planning shows primary role in their operational success and cost-effectiveness. When these Airlines schedule their networks to different countries of the World, they make some decisions and follow them to attain success. Those decisions can be adjusting fleet assignment beside altered demand levels and by planning all flights with suitable slot approvals or tracing historic slots spontaneously. Now Airlines are divided into two categories, Legacy Airlines and Low Cost Carrier Airlines. Both of these Airlines operate their flights by Air Transport Networks on given routes. In Aviation Industry there are mainly two types of networks for the movement of passenger aircrafts across the World:

1.1 Hub and Spoke Network

Hub and spoke network system is clearly is shows the combination of two words 'hub' and 'spoke'. It makes a pretty intense image that how this system run by Airlines. The meaning of hub is a central point or airport from where flights are routed and the routes from where plan carryout from the hub to destinations is called spoke. It is not necessary that one Airline have only one hub, there can be several hubs of one Airline. In this scenario, passengers get more flights by that Airline. Hub and spoke main purpose is to give passengers improved destinations and routes moreover, to save Airline's cash. As we know that aircrafts are the most precious commodities of Airlines therefore when every seat that occupied by passenger then the Airline decrease it's break-even price. Thu hubs situated in between the origin and destination, flying by this way the time between origin and destination is shortens. This system is considered to make attach little flows in various directions and paths of arriving and departure. It is as simple like there are six points Alpha, Bravo, Charlie, Delta, Echo and Foxtrot. Alpha is a hub and remaining points are spoke which will connect it to catch to each other.

Example: let's take the Example of Emirates Airlines; the hub of Emirates is Dubai International Airport. Suppose you are travelling on Emirates Airlines from Lahore Pakistan to Jeddah KSA. The flight will operate from LHE (ORIGIN) to DXB (HUB) to JED (DESTINATION) and vice versa. This scenario is same for other Airlines to anywhere.

There are three hubs of Turkish Airlines:

- Istanbul Ataturk Airport