

# Airport Congestion Management

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## **DEDICATION**

*We would like to dedicate this project to our parents. Without their moral support, inspiration and prayers, we could not have completed our studies and project. Their deep love and appreciations have always given us a lot of enthusiasm which helped us throughout our career, especially in the compilation of this project.*

## ACKNOWLEDGMENT

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*Completing final project in never work of anyone's alone. The contribution of many different people, in certain ways, have made this possible, a special gratitude I give to following;*

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*Mr. Saqib Sheikh (Professor, UMT)*

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## Table of Contents

<b>No.</b>	<b>Topic</b>	<b>page</b>
1.	Dedication	1
2.	Acknowledgement	2
3.	Table of Contents	3
4.	Acronyms	4
5.	Introduction	5
6.	Factors of passenger congestion	6
7.	What is actually capacity?	10
8.	Congestion due to extended delays	13
9.	Reducing congestion on major Airports	14
10.	Expansion issues	15
11.	Warning for Airports facing congestion	16
12.	Is expansion the only solution?	18
13.	Congestion causing delays	19
14.	Top 10 busiest Airports	20
15.	Passengers pooling at Lahore Airport	21
16.	Function of Airport passenger terminal	25
17.	Facilities required at passenger terminal	26
18.	Passenger Handling	27
19.	Future terminal development	47
20.	Conclusion	49
21.	References	51

# ACRONYMS

BAA	Business Aviation Association
MRO	Maintenance Repair and Overhaul
TSA	Transportation security administration
LOS	Length of stay
MIS	Management Information System
DCS	Distribution Control System
CIP	Commercially Important Person
PIP	Public Important Person
PIL	Passenger Information List
UM	Unaccompanied Minor
ROT	Runway Occupancy Time
MASS	Meet and Assist
DCS	Departure Control System
PTM	Passenger Transfer Manifest
ACF	Area Control Facility
ALP	Airport Layout Plan
PBB	Passenger Boarding Bridge
TAF	Terminal Area Forecast
TMA	Traffic Management Advisor
EMS	Environmental Management System
ATM	Air Traffic Management

*“Congestion prevents us from accomplishing our objectives”.*

## **Introduction:**

Airports in early ages 1950's are opened with single runway and small passenger terminal. With growth in global aviation transport, the airport was facing congestion problems. Its inability to cope with the rising passenger traffic became critical by the 1970s. The basic cause of congestion is due to delays in flights which are mostly due to weather conditions. Transportation data show that the volume of traffic is also a major cause. The real issue occurs after the manufacturing of wide body aircraft Boeing 747 and Air Bus A-380. With the invention of such aircraft the parking, apron, runways, terminal, airports everything require expansion. This is not just because of the wide body aircrafts but also the trend of using air transportation as a mode of transport was used dramatically. Since the time management issue raises for the time of arrival and departure of aircraft also the embarkation and disembarkation of passengers occurred. Initially it was handled by expanding the airport terminal and other airport vicinity. This requires a lot of capital in expansion and also the space for airport. Not only this the security issues passenger services maintenance, cost of passenger related operations and other cost got increased. Weather climate and maintenance causes delay cancellation or swapping cause passenger congestions on airport. 9/11 issue changed the whole perspective of aviation industry where it affected the other operations of airports and airline also causes in a factor to increase passenger congestion. As the security was tightened and long passenger queue were seen enormously across the world's largest and even on smallest airports.