


Welcome all to the class  
Let's talk



# ABI2205 Airline Logistics Management



# Semester's Agenda

\*Subject to rearrange related to contents



**01**

**Introduction to Airline Logistics  
Management**

**02**

**Cargo Procedure - Outbound/Inbound**

**03**

**Booking - Air Waybill/ Agent/Related  
B/U**

**04**

**Packing - Type (Boxes)/ Dangerous  
Goods**

**05**

**Acceptance - Checking for  
booking/packaging/x-ray**

# Semester's Agenda

\*Subject to rearrange related to contents



**06**

**Loading - Type of  
Palettes/Containers/Finishing**

**07**

**Arrival Procedure**

**08**

**Unpacking (Breakdown)**

**09**

**Documents Procedure**

**10**

**Retrieval / Delivery / Problems and  
Solutions**



# Introduction to Airline Logistics



# Abbreviations

Abb.	Meaning
ACMI	Aircraft, crew, maintenance and insurance
ACC3	Airline Logistics or mail carrier operating into the (European) Union from a third country airport
AOC	Air Operator's Certificate
AWB	Air waybill
e-AWB	Electronic air waybill
EASA	European Aviation Safety Agency
EDI	Electronic data interchange
GHA	Ground handling agent

# Abbreviations

Abb.	Meaning
HAWB	House air waybill
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
KPI	Key performance indicator
MAWB	Master air waybill
MTOW	Maximum take-off weight
RCS	Ready for carriage shipment
RFID	Radio frequency identification

# Abbreviations

Abb.	Meaning
RM	Revenue Management
TSA	Transportation Security Administration
ULD	Unit load device, usually either pallet or container

# Airline Codes

Abb.	Meaning
NH	All Nippon Airways
TG	Thai Airways International
KZ	Nippon Cargo Airlines
BR	Eva Airways
LH	Lufthansa (Lufthansa Cargo AG / Deutsche Lufthansa AG)
SQ	Singapore Airlines Limited
CI	China Airlines
CZ	China Southern Airlines / China Southern Airlines Cargo

# Airport Codes

Abb.	Meaning
IST	Istanbul airport
LAX	Los Angeles International airport
MAA	Chennai International airport
RGN	Yangon International airport
TPE	Taipei Taoyuan International airport
PEK	Beijing International airport
HND	Tokyo International airport (Haneda)
FRA	Frankfurt International airport



# Logistics

Source: Ignou, The people's university

Organizations collect raw materials from suppliers and deliver finished goods to the customers

Logistics is the function that moves both tangible materials (raw materials) and intangible material (information) through the operations to the customers (as a finished product)



# Logistics and Supply Chain Management

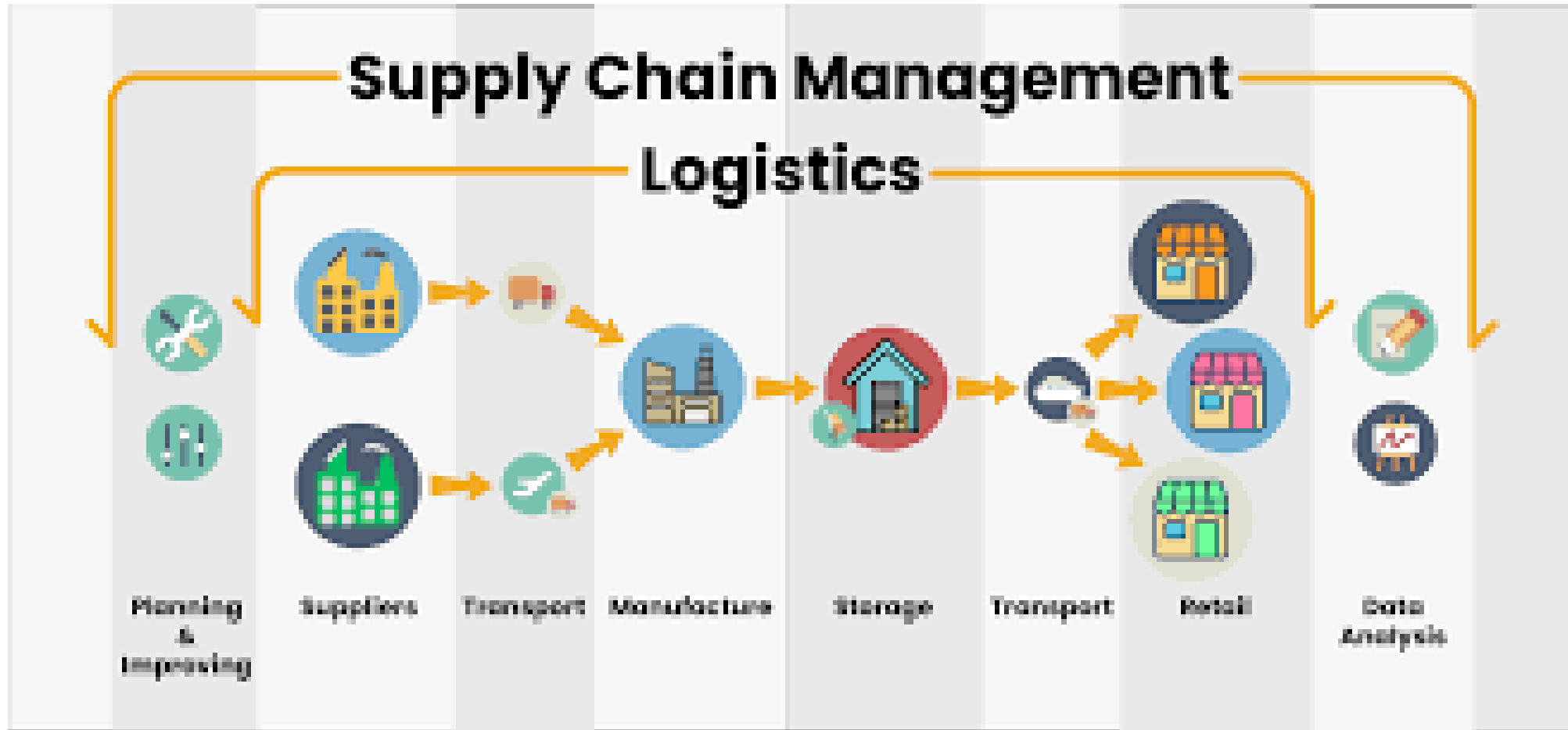
Source: Ignou, The people's university

A supply chain consists of a series of activities involving many organizations connected with trading relationship through which the materials move from initial suppliers to final customers



# Logistics and Supply Chain Management

Source: WTA Group



# Logistics



Practical function of supply chain

An internal process within a company that is sometimes outsourced to a third party such as freight forwarders

Focuses on cost and time-efficient delivery of goods

Includes inbound & outbound transportation, warehousing, fulfillment, customs clearance

Strong focus on customer satisfaction

**Manages the process of bringing products to the market**

# Supply Chain

A strategic view of logistics, procurement and planning

Works with many external partners such as manufacturers & supply and delivery partners

Focuses on an innovative approach and cost-cutting at every step of the process

Includes procurement, supply planning, manufacturing, inventory management, innovation, constant improvement, strategising and planning

Strong focus on competitive advantage

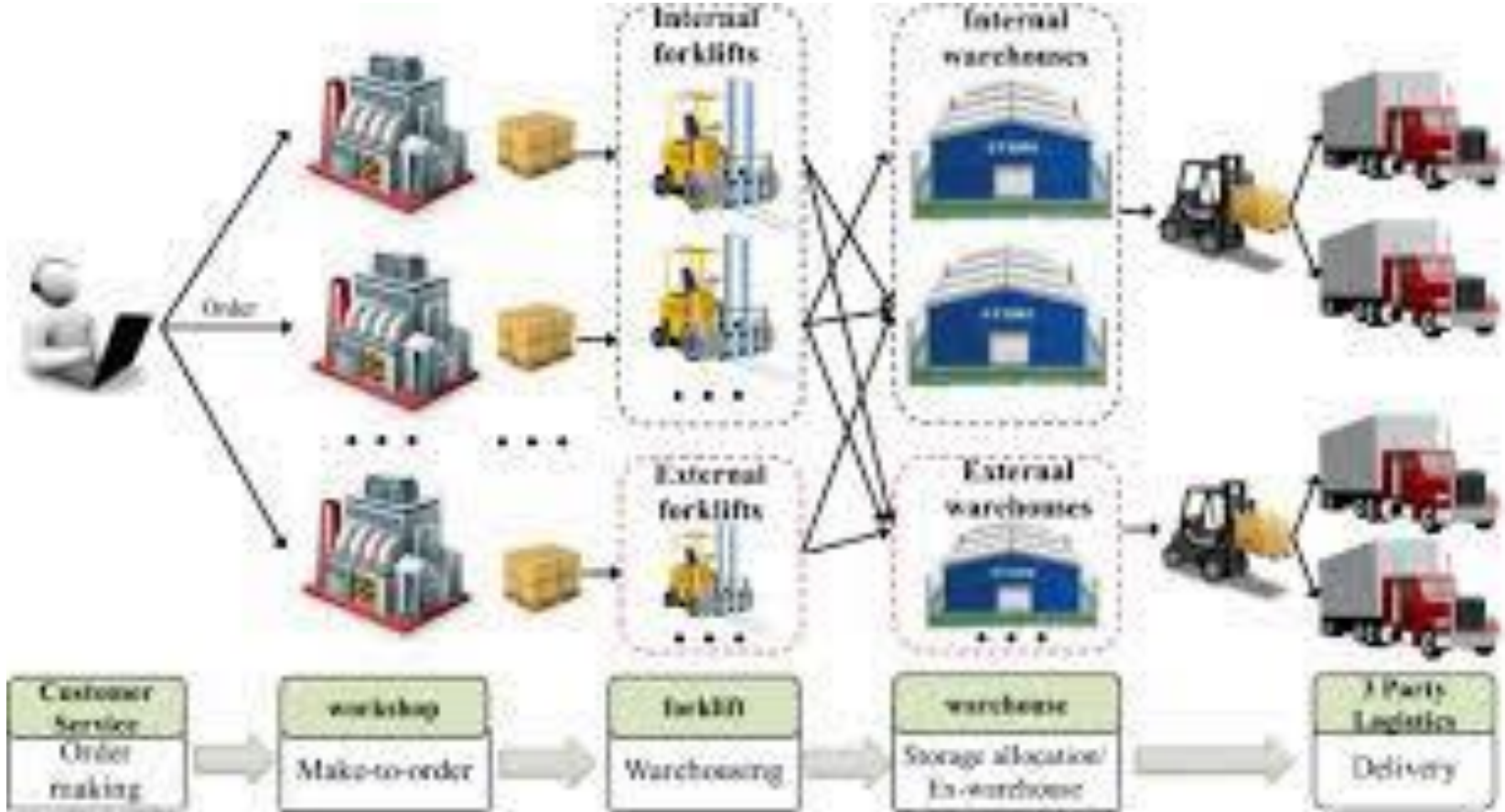
# Logistics and Supply Chain Management

Source: Think Global Logistics



Logistics operation can be basically clubbed into physical distribution management, materials management, and internal inventory transfer

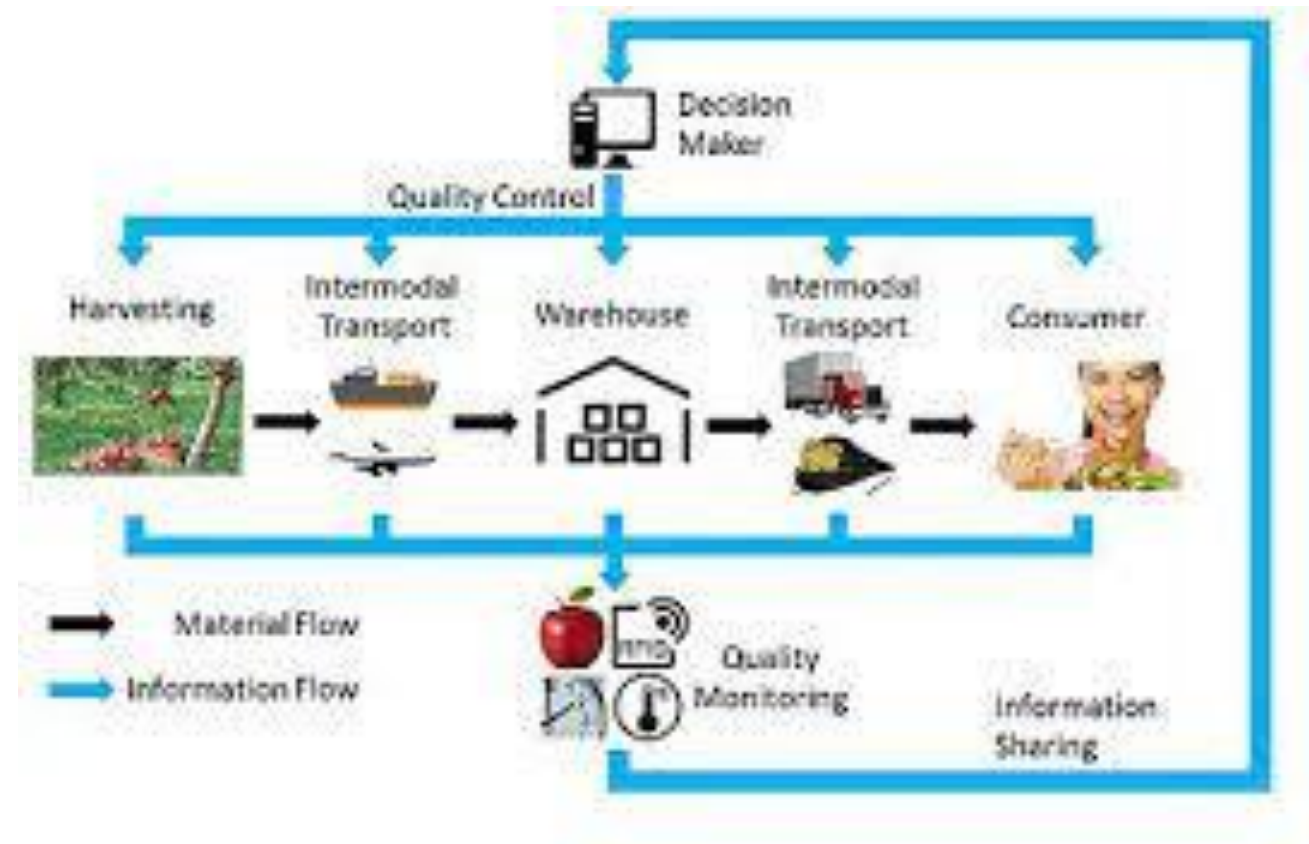
# Logistics Operation



Source: ignou, The people's university, Researchgate

Logistics coordination pertains to forecasting, order processing, operational planning and product procurement. This integration is effected through effective information flows.

# Logistics Coordination



# Logistics Activities

Source: Ignou, The people's university

- Customers Services
- Demand Forecasting
- Distribution
- Communication
- Inventory Control
- Material Handling
- Order Processing
- Parts & Service Support
- Plant and Warehouse Site Selection
- Procurement
- Packaging
- Return Goods Handling
- Salvage and Scrap Disposal
- Traffic and Transportation



# Logistics Elements

Source: Ignou, The people's university

- Facility Location
- Transportation
- Determining location, number and size of facilities needed
- Mode and service selection, Carrier routing, Vehicle scheduling



# Logistics Elements

- Inventories
- Customer Service
- Finished goods stocking policies, Record keeping, Supply scheduling, Short term sales forecasting
- Cooperate with marketing in: Determining cust needs and wants for service, determining cust response to service



# Logistics Elements

- Order processing and Information flows
- Warehousing and Material Handling
- Sales order procedure, Information collection, storage and manipulation, Data analysis
- Space determination, Stock layout Material handling equipment selection, Stock storage and retrieval





# Development of Logistics

Source: Ignou, The people's university

Logistics starts a thousand years ago, more emphasis has been given in 1990-91. With rising interest rates and increasing energy cost logistics received more attention as a major cost driver. Logistics cost became a more critical issue for many organization because of globalization of industry. This has affected logistics in two primary ways. First, the growth of world-class competitors from other nations has caused organization to look for new way to differentiate their organizations and product offerings. Second, as organizations increasingly buy and sell offshore, the supply chain between the organizations becomes longer, more costly and more complex.



# Development of Logistics

Source: Ignou, The people's university

Other factor contributing to the growing interest in logistics include advances in information technology, increased emphasis on customer service, growing reorganization of the system approach and total cost concept. The profit leverage from logistics and realization that logistics can be used as a strategic weapon in competing the market place.



# The Role of Logistics in the Economy

Source: Ignou, The people's university

Logistics play a key role in the economy in two significant ways. First, logistics is one of the major expenditures for business. Logistics expenditure accounts for around 15-20% of GDP. Thus by improving the efficiency, logistics make an important contribution to the economy as a whole.

Second, logistics support the movement and flow of many economic transactions; it is an important activity in facilitating the sale of virtually all goods and services. To understand this role from a system perspective, consider that if goods do not arrive on time, customer can not buy them. If goods do not arrive at the proper place or in the proper condition, no sale can be made. Thus all economic activities throughout the supply chain will suffer.



# Logistics and Competitive Performance

Source: Ignou, The people's university

The value chain concept may be used to identify and understand the specific source of competitive advantage and how they related to buyer value. Value is the amount a customer is willing to pay for the products, services provided by an organization. Value added is the difference between what the customer pays and the cost to the organization in providing that product or service.



# Logistics and Competitive Performance

Source: Ignou, The people's university

Porter defines the five categories of primary activity involved in competing in any industry.

- Inbound logistics: Activities associated with receiving, storing and disseminating input to the product.
- Operation: Activity associated with transforming input into the final product form.
- Outbound logistics: Activity associated with collecting storing and physical distribution of the product to buyers.
- Marketing and Sales: Activities associated with providing a means by which buyers can purchase the product and inducing them to do so such as advertising, promotion etc.
- Service: Activity associated with providing service to enhancer maintain the value of the product such as installation, repair etc.





# Physical Distribution Management (PDM)

Source: Ignou, The people's university

It is now recognised that PDM is a critical area of overall supply chain management. Business logistical techniques can be applied to PDM so that costs and customer satisfaction are optimised.

There are four principal components of PDM namely; Order processing, Stock levels or inventory, Warehousing and Transportation.



# Physical Distribution Management (PDM)

Source: Ignou, The people's university

- Order processing

Order processing is the first of the four stages in the logistical process. The efficiency of order processing has a direct effect on lead times. Orders are received from the sales team through the sales department.



# Physical Distribution Management (PDM)

Source: Ignou, The people's university

- Inventory

Inventory, or stock management, is a critical area of PDM because stock levels have a direct effect on levels of service and customer satisfaction



# Physical Distribution Management (PDM)

Source: Ignou, The people's university

## - Warehousing

Many companies function adequately with their own on-site warehouses from where goods are dispatched direct to customers. When a firm markets goods that are ordered regularly, but in small quantities, it becomes more logical to locate warehouses strategically around the country. Transportation can be carried out in bulk from the place of manufacture to respective warehouses where stocks wait ready for further distribution to the customers.



# Physical Distribution Management (PDM)

Source: Ignou, The people's university

## - Transportation

Transportation usually represents the bulk of distribution cost. It is usually easy to calculate because it can be related directly to weight or numbers of units. Costs must be carefully controlled through the mode of transport selected amongst alternatives, and these must be constantly reviewed



# Physical Distribution Management (PDM)

Source: Ignou, The people's university

## The Systems or 'Total' Approach to PDM

- **Storage Cost:** Storage cost will increase as the number of depots will increase because there will be a need for more stock coverage, more storage space, more management etc.
- **Delivery cost:** This will concern with the secondary transportation cost i.e. cost of delivery from the depot to the consumer. The greater the number of depots, the lesser is the secondary mileage and the delivery cost.



# Physical Distribution Management (PDM)

Source: Ignou, The people's university

## The Systems or 'Total' Approach to PDM

- **Trunking Cost:** This is the primary transport cost in the supply of products in bulk to the depots from the central finished good warehouses or production points. As the number of depots increases this cost will also increase.
- **Inventory Cost:** The main elements of inventory holding costs are:
- **Capital Cost:** The cost of physical stock. This is the financing charge, which is the current cost of capital to a company



# Physical Distribution Management (PDM)

Source: Ignou, The people's university

## The Systems or 'Total' Approach to PDM

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# Physical Distribution Management (PDM)

Source: Ignou, The people's university

## The Systems or 'Total' Approach to PDM

- Service Cost: That is stock management and insurance cost
- Risk Cost: Which occur through pilferage, deterioration of stock, damage and stock obsolescence.
- System Cost: These costs represent a variety of information or communication requirements ranging from the order processing to load assembly lists.





# Air Cargo



Air transportations are carrying both passengers and cargo underneath of the passenger's seating



Source: National Geographic

## Passenger



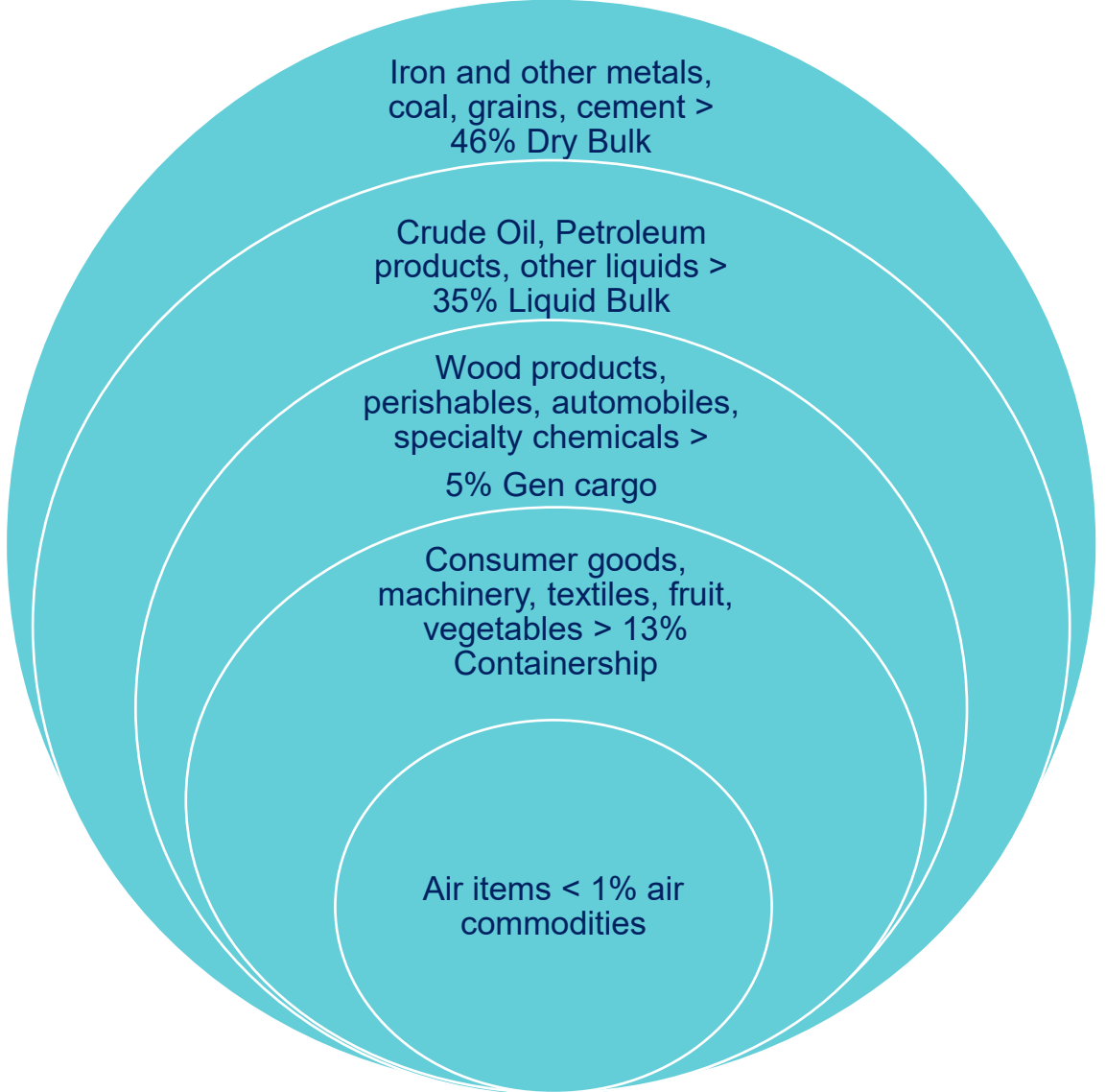
Source: Airlines - IATA

## Cargo

Airline Logistics can transport goods much more quickly than by sea or rail, domestically and internationally.

Types of goods could be technology ie. smartphones, tablets to medical samples, fresh produce or even large, heavy oil and gas equipment, sometime aircraft spare parts.

# World Trade by commodity (Air and Surface transportation), Source: Boeing (2016)



# Segmentation of demand based on transport urgency

## 1. Emergency Freight

Speed is essential while shipping cost and actual commodity value are relatively unimportant

## 2. High value Freight

Security and speed in order to reduce the exposure time to a minimum, cost is usually irrelevant ie. Gold / Jewellery



# Segmentation of demand based on transport urgency

## 3. Routine Perishable Freight

Food stuffs or cut flowers, it is essential to minimize the time from production to market

## 4. Routine Non-Perishable Freight

Largest share of the air freight market



# Types of Cargo Charter Service

## 1. Regular charter flights

These operate similarly to scheduled flights, however with the capacity on board the aircraft being sold exclusively to a single customer or a small group

## 2. Seasonal charter flights

These operate as supplements to scheduled services to cover increased demand during high season, mainly the fourth-quarter or fresh flowers during Valentine's Day



# Types of Cargo Charter Service

## 3. Ad-hoc charter flights

To cover sudden surges in demand or individual events, ie. Freighter aircraft fly test cars and prototypes

## 4. Humanitarian aid

Emergency food aid and medical supplies

## 5. Military charters

Troop movements, in support of logistics needs



# Air freight as a multi-modal product

Mode	Meaning
Trucking	Shipments are carried by trucks from their origin to the airport of departure, goods are consolidated and loaded on the aircraft. At the destination, the shipments are distributed again by truck to their actual destination
Sea-Air	On the longer-haul trade routes from Asian to Europe and North America, a combination of sea and air transport can make economic sense. Shipments need to be transferred to air containers or pallets for the second leg of journey
Rail-Air	Rail can be used for regional distribution if the hub airport has freight rail access





# Integrators



Door-to-Door service which includes pickup, packaging, air transportation, customs processing and delivery. Time-sensitive, has their own network of aircraft and trucking service around the globe, may be wholly owned or contracted to other carriers

Sources: FedEx/DHL [airwaysmag.com](http://airwaysmag.com)



# Passenger Airlines

They sell the empty space in the aircraft belly after all pax's bags are accounted for. This amount of space – expressed in volume and weight can vary significantly based on aircraft, route, load factors and time of the year.

Sources: Aviation Pros



# Cargo Airlines – Cargo aircraft only

They operate all-cargo aircraft which can differ in size and capacity. They can be in their own right or be a part or subsidiary of a passenger airlines. Ranging from small bulk-hold, narrow-bodied to large containerized wide-bodied freighters – B747.

Sources: Sky Team





Thank you  
Q & A

# Individual Presentation

## Airline Logistics Knowledge Presentation

**10 Points – English 5/Creativity 5**

Find the article about Airline Logistics that you interested and presenting on the video clip for ONE minute with 3 advanced vocabularies from the article

Submission by 15SEP25 on the  
Assignment link provided

Title: Student ID-Base-Name  
6712344xxxx-BKK-Theppaluk



# Group Presentation

**Airline Logistics with SDG Presentation**  
**15 Points – English 5/Creativity 5/Team 5**  
**5 Points from voting**

Create the Airline Logistics with SDG project, all things need to be in realistic Please provide with the real materials you created and video clip of making the materials 3 minutes

Submission by 30SEP25

Title: All Student ID-Base-Name in order  
All 6712344xxxx-BKK-Theppaluk



# On Demand Assignment

**5 Videos summarization**

**10 Points – English 5/ Self-Comprehension 5**

Summarize each video in the essay form  
at least 200 words on your own  
comprehension, total of 5 pages for 5  
video stories

Submission by 15SEP25

Title: Student ID-Base-Name  
6712344xxxx-BKK-Theppaluk



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