

# SUPPLY CHAIN MANAGEMENT

## LESSON 6: Network Design and Online Sales Application

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# Chapter Description

- Aims

- To provide students with explanation on how does E-business operated in relation to distribution network design.

- Expected Outcomes

- Students should be able to identify the impact of e-business on cost and customer service

- References

- Chopra, Sunil, and Peter Meindl. (2016) Supply Management: Strategy, Planning, & Operation. © Saddle River, NJ: Prentice Hall.



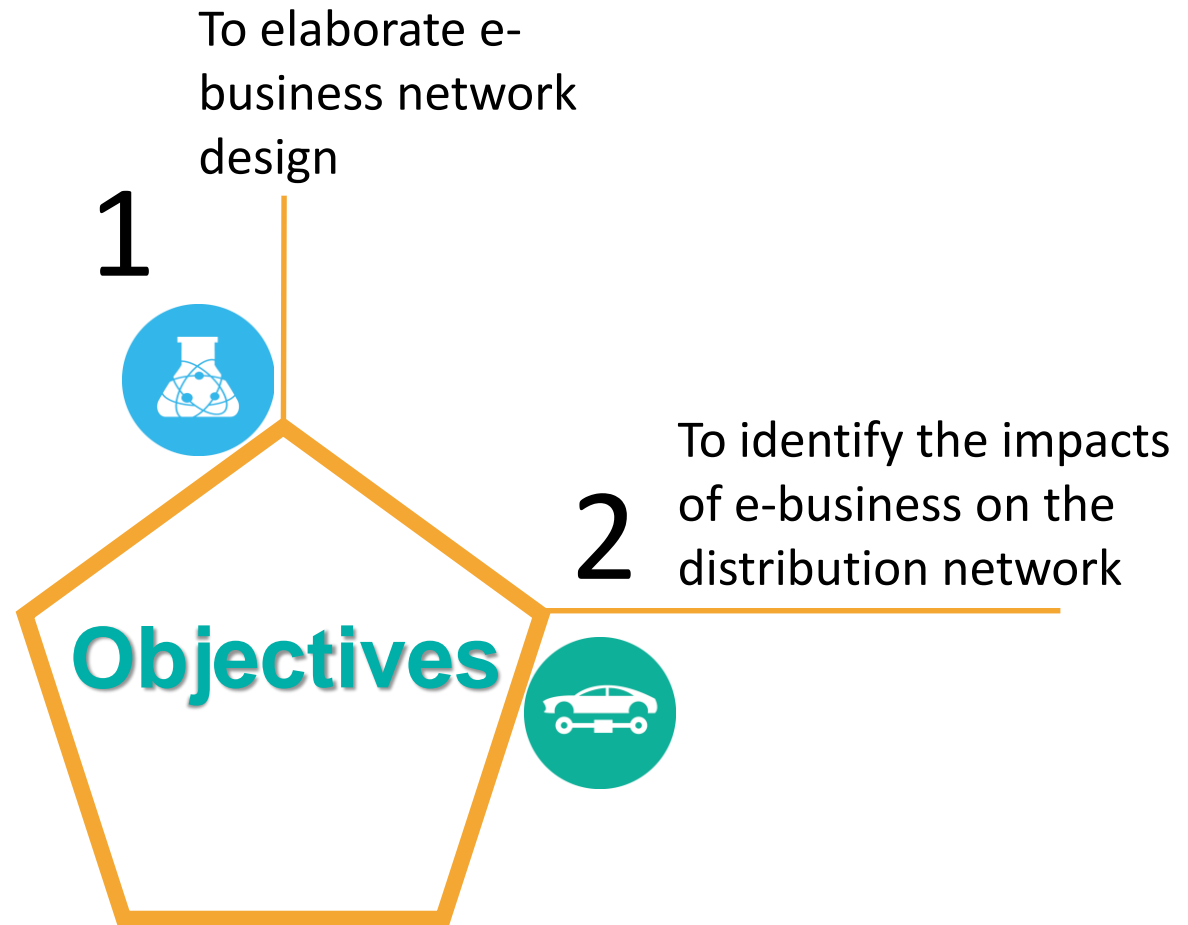
# Chapter Outline

6.1 E-business network design

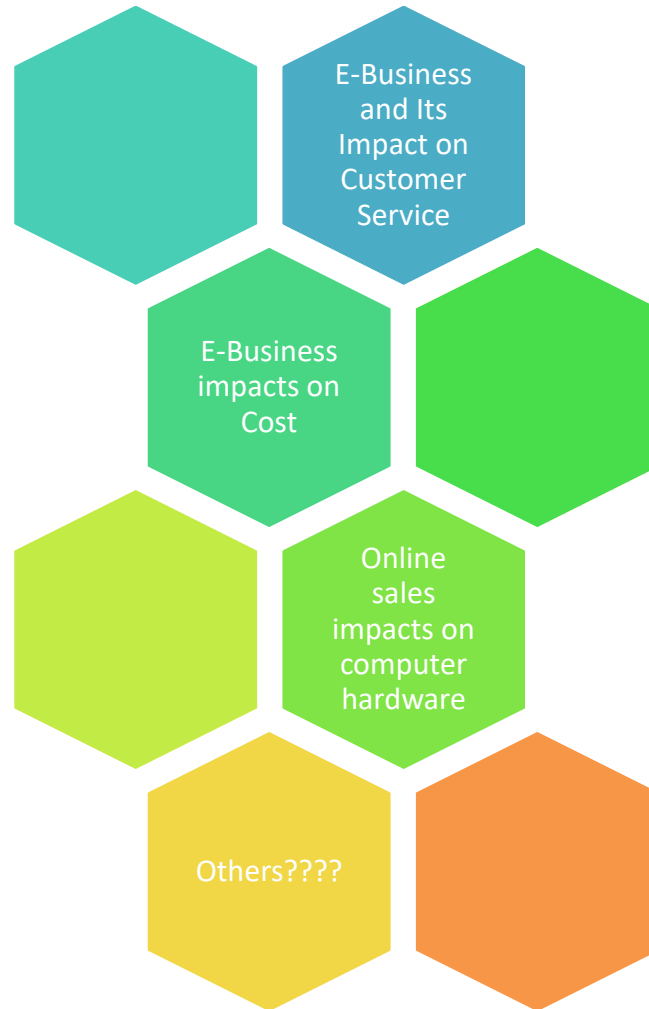
6.2 Impact of E-business on cost and customer service



# LEARNING OUTCOMES



# E-Business and the Distribution Network



# Online Sales Impacts on Cost

## Inventory

- Lower inventory levels as customers willing to wait
- Postpone variety (hold) until after the customer order is received

## Facilities

- Number and location of facilities affect cost including operational cost related to the facilities

## Transportation

- Costs of information about the products are lower as it is in digital form
- For non-digital, varieties and multiple inventories increases outbound transportation cost

## Information

- Share demand, planning, and forecasting information throughout its supply chain
- Additional costs to build and maintain the information infrastructure



# Using Online Sales to Sell Computer Hardware: Dell Case Study

**Online sales impacts on customer service**

- Delay in fulfilling customer request

**Online sales impacts on cost**

- Reduced inventory costs
- Lower facility costs
- Higher total transportation costs
- Incremental increase in information costs



# Online Sales Impacts on Customer Service

## Response time to customers

- It takes longer to fulfill the physical products than the retail store
- Fast response towards information

## Product variety

- Easier to offer various selection

## Product availability

- Multiple inventories and better information on customer favors

## Customer experience

- More easy access, customization and convenience

## Faster time to market

- Able to introduce new product more quickly

## Order Visibility

- Physical product are seen when/once it reached customer /buyer address

## Returnability

- Difficult with online orders
- Returnability rates are likely to be higher





# Using the Internet to Sell Groceries: TECSO MALAYSIA

## Online sales impacts on customer service

- Sell convenience + time savings
- Offers less variety (*buy whatever offered in the particular store*)
- personalized shopping experience and customized advertising + promotions

## Online sales impacts on cost

- Reduced inventory costs
- Higher facility costs due to picking operation
- Significantly higher total transportation costs
- Increase in information costs



# Conclusion of The Chapter



- **Conclusion #1**

- As E-business offers variety of products online, the design of this type of business is different as it offers high variability as well as availability of the products.

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- **Conclusion #2**

- Different types of e-business impacted differently on customer service and cost depending on the nature of the business.