

# Module 1

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## Introduction

This module introduces the subject of operations management by explaining strategy and competitive advantage and then examining how the operations function can make significant contributions to the organisation with an understanding of how the organisation competes.

Upon completion of this module students will be able to:



### Outcomes

- *Explain* what is meant by strategy, strategic capability and competitive advantage.
- *Define* operations management and *understand* the importance of operations management.
- *Define* the customer and recognise the basic requirements of the customer.
- *Describe* the transformation process.
- *Distinguish* between products and services.



# Unit 1

## Strategy and competitiveness



### Outcomes

Upon completion of this unit students will be able to:

- *Explain* what is meant by strategy and strategic capability.
- *Explain* the concept of core competence.
- *Distinguish* between order winners and qualifiers.
- *Explain* how strategy exists at different levels in organisations.
- *Explain* the nature of competitive advantage.
- *Make* strategic decisions for an organisation.
- *Explain* operations strategy and explain the linkage with business strategy.
- *Explain* competitive capability.

## Activity 1.1



### Activity

Work through the following questions. You may need to go back and re-read the unit to help you.

1. What are the reasons for formulating and implementing an operations strategy?
2. How would you determine whether a company had an operations strategy or not? What specific questions would you ask and what information would you gather?
3. Find an example of an operation in your local community that has been successful in simultaneously improving quality, reducing throughput time, improving on-time deliveries and reducing costs. How has this operation been able to achieve these seemingly conflicting results?
4. Who defines the value of a product or service?

## Activity 1.1 feedback

All answers are in the learning material.

## Unit 2

### The nature and role of operations management



#### Outcomes

Upon completion of this unit students will be able to:

- *Define* operations management.
- *Define* the customer and recognise the basic requirements of the customer.
- *Distinguish* between structural, infrastructural and integration decisions in operations.
- *Describe* the transformation process.
- *Understand* the importance of operations management.
- *Distinguish* between products and services.
- *Explain* the role of operations management within the context of the whole organisation and the customer experience paradigm.
- *Define* the primary activities associated with operation management.
- *Trace* the history of operations.

### Activity 1.2 and feedback



#### Activity

The following table of production organisations has been completed for “Electrical appliances”. Complete the table for a bakery, a clothing manufacturer, a packaging company and a dairy products company.

The inputs use nouns; the transformations use verbs; and the outputs use nouns. That simple definition of language helps to visualise the process.

Organisation	Inputs	Transformation process	Outputs
Electrical appliances	Raw materials Components Printed circuit boards Insertion machines	Fabricating Assembling Inserting components in PCB Packaging	Finished goods such as stereos, TVs, DVDs, household appliances delivered to warehouses and retail stores



	People skills	Distributing	
Bakery	Flour Sugar Flavourings Packaging Energy People skills	Mixing ingredients Baking Packaging Distributing	Bakery items such as buns, bread, muffins, biscuits delivered to warehouses and retail stores
Clothing	Fabrics Threads Findings (buttons clips and clasps) Energy People skills	Laying fabric Cutting fabric Sewing garments Packaging Warehousing Distributing	Range of garments such as pants, shirts, dresses, coats delivered to retail outlets
Packaging	Paper Plastic Glue Inks Energy People skills	Preparing artwork Printing Guillotining Slitting Packing Distributing	Packaging items such as cases, cartons, boxes, packets to meet customer specifications warehoused and delivered to production facilities
Dairy products	Milk Flavourings Containers Packaging	Pasteurising Separating Mixing Packing Distributing	Dairy products such as milk, cream, yoghurt, flavoured drinks delivered to supermarkets



The following table of service organisations has been completed for “Air transport”. Complete the table for a computer centre, a restaurant, a hospital and a bank.

### Activity

Organisation	Inputs	Transformation process	Outputs
Air transport	Airport infrastructure Reservation system Aircraft	Reserving passengers Scheduling flights Scheduling crews	Passengers with reservations for travel Passengers safely on board aircraft



	Flight crews Cabin crews Ground staff Fuel Food	Checking-in passengers Maintaining aircraft and equipment Cleaning and provisioning aircraft Preparing meals	Passengers fed and watered during flight Passengers and luggage safely delivered to destination Freight carried and delivered
Computing centre	Computing equipment Stationery Energy People	Updating records Maintaining security Printing Enveloping Distributing	Information processed quickly and accurately for internal and/or external customers
Restaurant	Kitchen and table equipment Food Energy People Wine and drinks	Setting tables Taking orders Preparing and cooking food Waiting at tables Washing cutlery and dishes General cleaning	Guests enjoying ambience Guests fed and watered An enjoyable experience
Hospital	Medical supplies Drugs Doctors Nurses Other staff Food	Operating Nursing Dispensing drugs and medicines Preparing meals Keeping records	Well patients Long term patients New babies Trained staff Dead people (unfortunately)
Banking and finance	Bank buildings Computers Tellers Automatic teller machines (ATM)	Processing deposits and cheques Investing money Providing loans and mortgages	Money safe and available when required Safe and profitable investments Money well spent



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## Activity 1.3



### Activity

We have discussed the differences between products and services. Think about your experiences with products and services and prepare a list of similarities between products and services.

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## Activity 1.3 feedback

Products and services are similar in the following ways:

- Use customer satisfaction as a key measure of effectiveness.
- Have common measures of satisfaction (for example, speed and quality).
- Require demand forecasting.
- Require product design and process design.
- Depend on location and arrangement of resources.
- Involve purchase of materials, supplies and services.
- Can be provided in high or low volumes.
- Can be standard or customised.
- Are subject to automation.
- Need an operations strategy consistent with business strategy.

As seen from this list, products and services are very similar. All organisations can benefit from improving their processes. It does not really matter whether an organisation sees itself as a manufacturer or a service provider.

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## Activity 1.4



### Activity

Work through the following questions. You may need to go back and re-read the unit to help you.

1. Which is more important – infrastructural or structural or integration decisions? Explain your answer.
2. What does operations management mean?
3. How is the transformation process related to value?
4. Who defines the value of a product or service?
5. How would you define the customer perceived value?

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## Activity 1.4 feedback

All answers are in the learning material.