

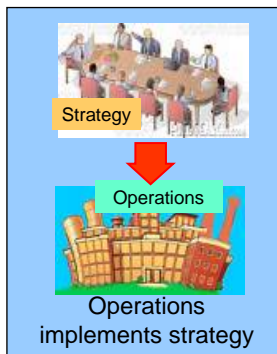
The strategic role and objectives of operations



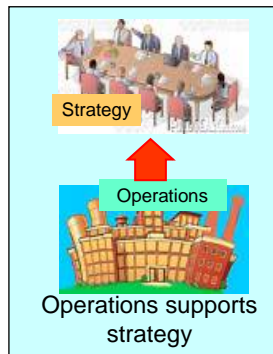
Source: Honda Motor Company

What is the role of the Operations function?

Operations as implementer



Operations as supporter



Operations as driver



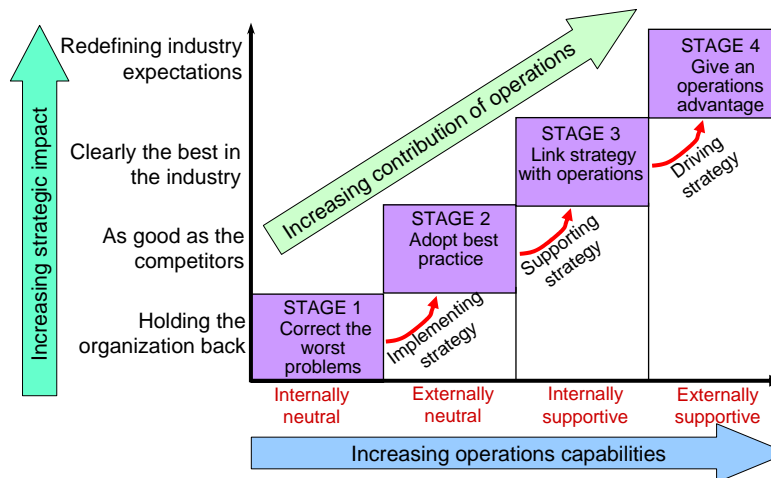
The strategic role of the Operations function

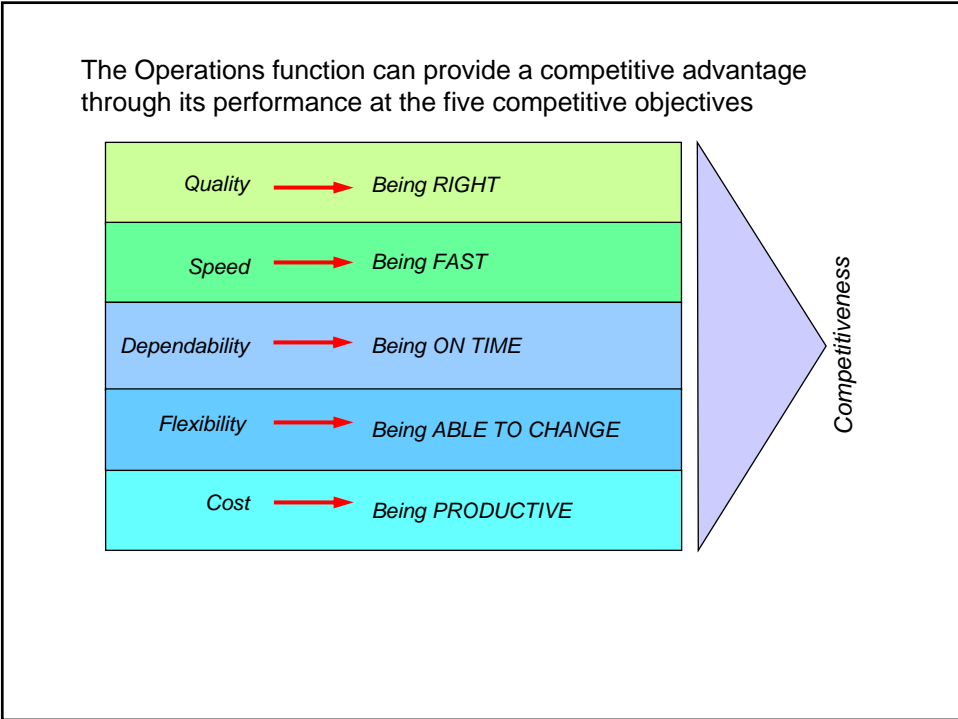
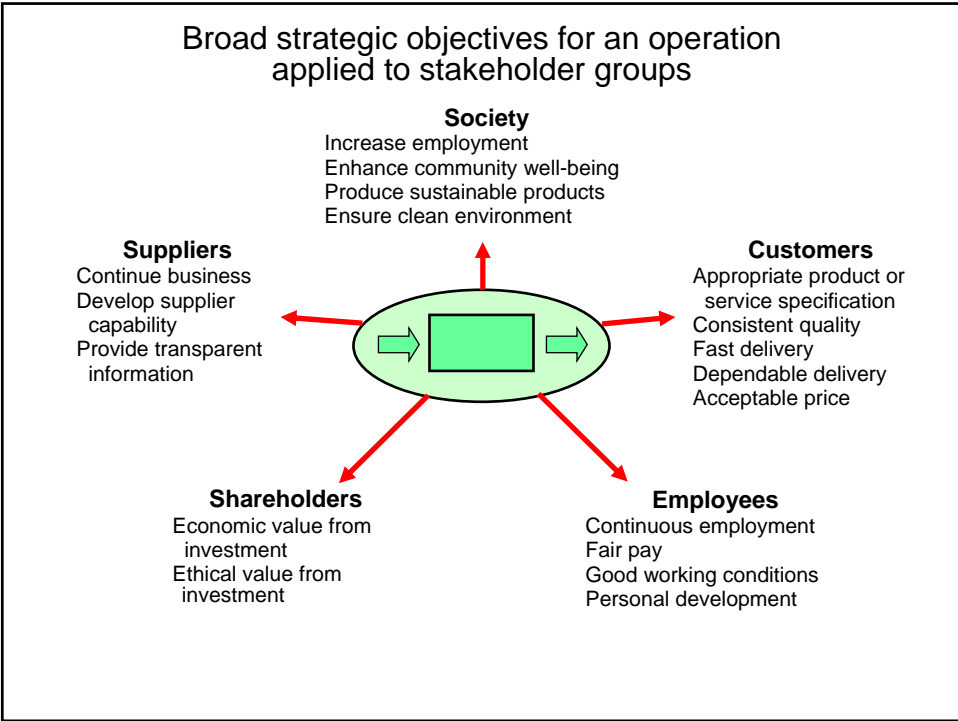
The 3 key attributes of Operations

Operations contribution

Implementing	<i>Be dependable</i> <i>Operationalize strategy</i> <i>Explain practicalities</i>
Supporting	<i>Be appropriate</i> <i>Understand strategy</i> <i>Contribute to decisions</i>
Driving	<i>Be innovative</i> <i>Provide foundation of strategy</i> <i>Develop long-term capabilities</i>

The four-stage model of Operations contribution





What do the terms quality, speed, dependability, flexibility and cost mean in the context of operations?

Which enables you to do things cheaply (cost advantage)?

Which enables you to change what you do (flexibility advantage)?

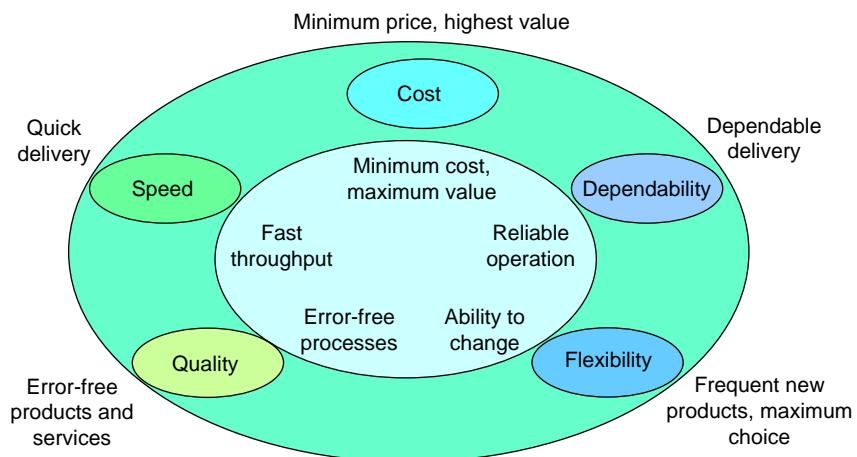
Which enables you to do things quickly (speed advantage)?

Which enables you to do things on time (dependability advantage)?

Which enables you to do things right (quality advantage)?



The benefits of excelling



What does Quality mean in ...

... a hospital?



- Patients receive the most appropriate treatment
- Treatment is carried out in the correct manner
- Patients are consulted and kept informed
- Staff are courteous, friendly and helpful

What does Quality mean in ...

... an automobile plant?



- All assembly is to specification
- Product is reliable
- All parts are made to specification
- The product is attractive and blemish-free

What does Quality mean in ...

... a bus company?



- The buses are clean and tidy
- The buses are quiet and fume-free
- The timetable is accurate and user-friendly
- Staff are courteous, friendly and helpful

What does Quality mean in ...

... a supermarket?



- The store is clean and tidy
- Décor is appropriate and attractive
- Goods are in good condition
- Staff are courteous, friendly and helpful

Quality

'Quality' has several meanings. The two most common are ...

Quality as the *specification* of a product or service

e.g. Lower Hurst Farm produces organic meat raised exclusively on its own farm



Quality as the *conformance* with which the product or service is produced

e.g. Quick-service restaurants like McDonald's may buy less expensive meat, but its conformance must be high



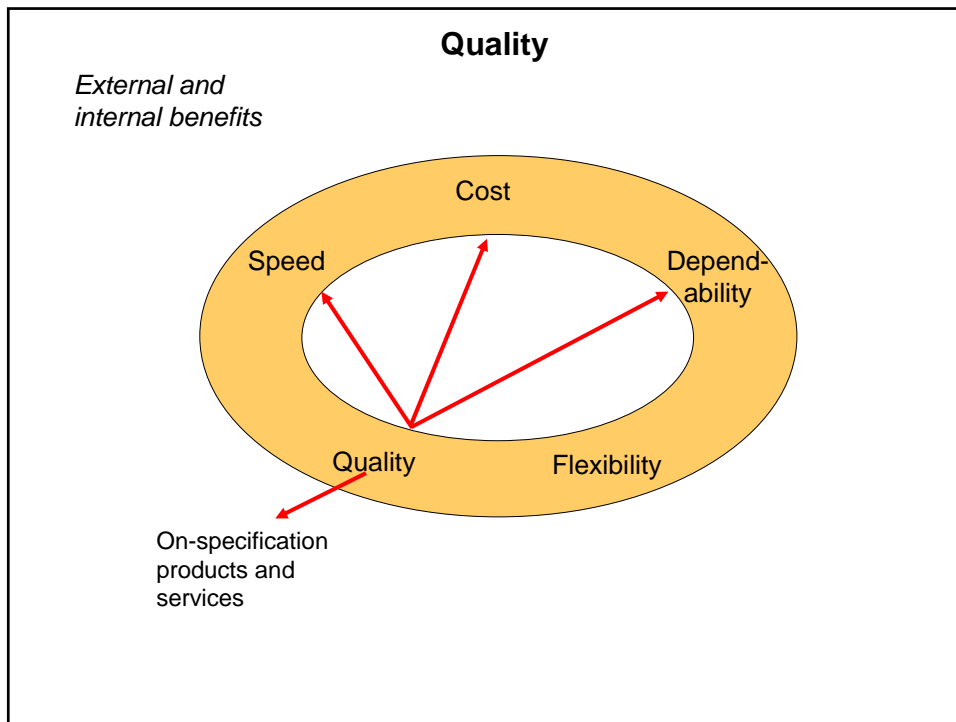
Quality

Irrespective of a product or service's specification quality, producing it so it conforms to its specification consistently brings benefits to any operation

Externally – it enhances the product or service in the market, or at least avoids customer complaints

Internally – it brings other benefits to the operation:

- It prevents errors slowing down throughput speed
- It prevents errors causing internal unreliability and low dependability
- It prevents errors causing wasted time and effort, therefore saving cost



What does Speed mean in ...

... a hospital?



- The time between requiring treatment and receiving treatment is kept to a minimum
- The time for test results, X-rays, etc. to be returned is kept to a minimum

What does Speed mean in ...

... an automobile plant?



- The time between dealers requesting a vehicle of a particular specification and receiving it is minimized
- The time to deliver spares to service centres is minimized

What does Speed mean in ...

... a bus company?



- The time between a customer setting out on the journey and reaching his or her destination is kept to a minimum

What does Speed mean in ...

... a supermarket?



- The time for the total transaction of going to the supermarket, making the purchases and returning is minimized
- Goods are immediately available

Speed

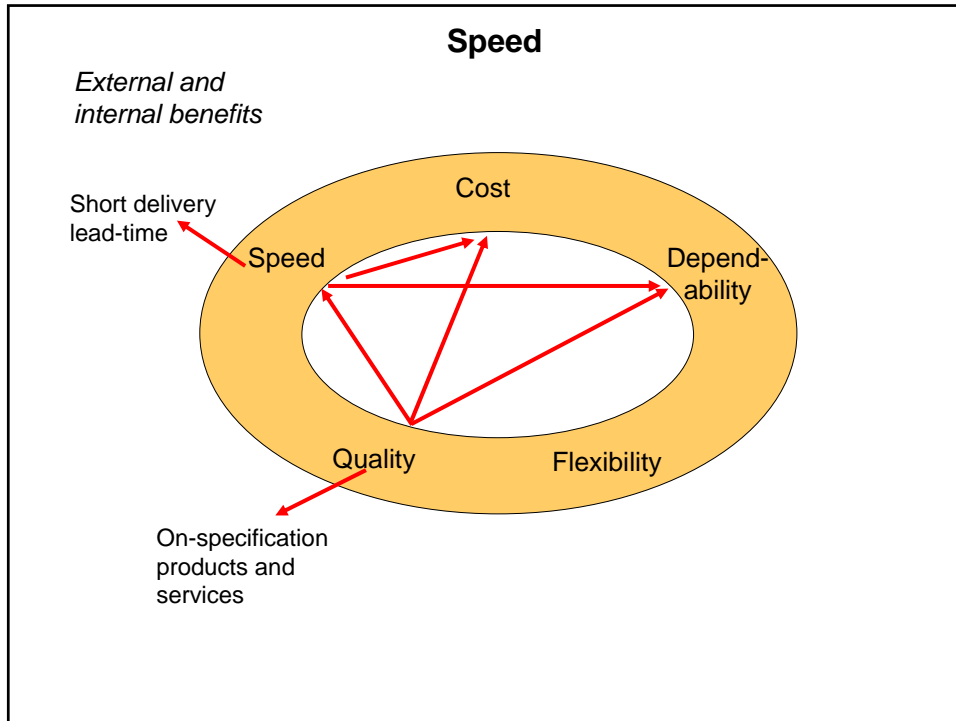
Speed again has different interpretations, externally and internally

Externally – it means the elapsed time between a customer asking for a product or service and getting it (in a satisfactory condition)

It often enhances the value of the product or service to customers

Internally – it brings other benefits to the operation:

- It helps to overcome internal problems by maintaining dependability
- It reduces the need to manage transformed resources as they pass through the operation, therefore saving cost



What does Dependability mean in ...

... a hospital?



- The proportion of appointments that are cancelled is kept to a minimum
- Keeping appointment times
- Test results, X-rays, etc. are returned as promised

What does Dependability mean in ...

... an automobile plant?



- On-time delivery of vehicles to dealers
- On-time delivery of spares to service centres

What does Dependability mean in ...

... a bus company?



- Keeping to the published timetable at all points on the route
- Constant availability of seats for passengers

What does Dependability mean in ...

... a supermarket?



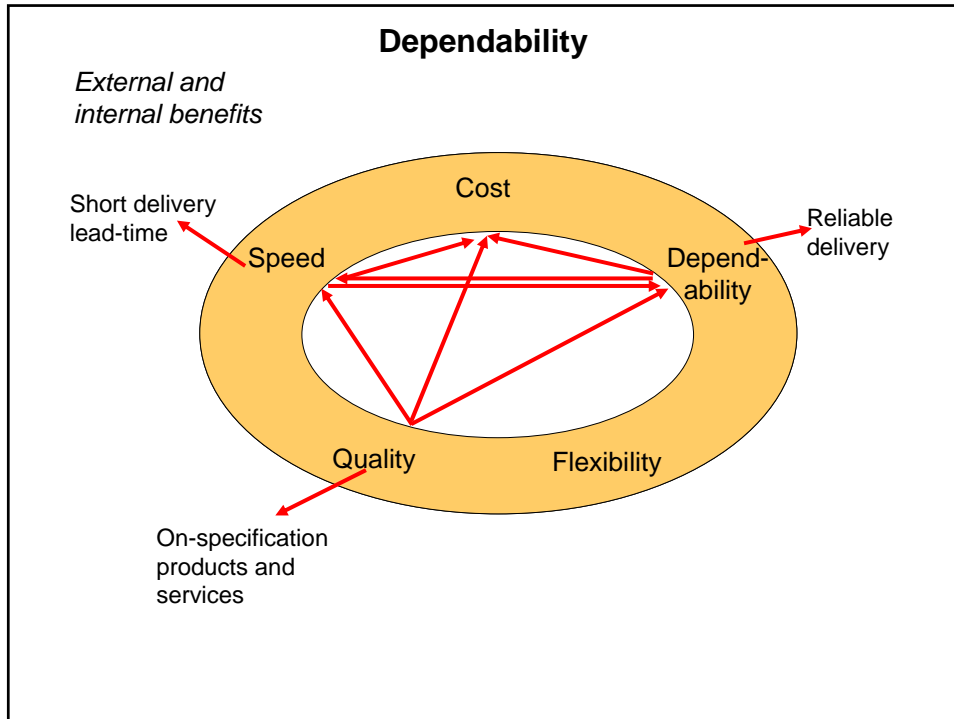
- Predictable opening hours
- Proportion of goods out of stock kept to a minimum
- Keeping to reasonable queuing times
- Constant availability of parking

Dependability

Externally – it enhances the product or service in the market, or at least avoids customer complaints

Internally – it brings other benefits to the operation:

- It prevents late delivery slowing down throughput speed
- It prevents lateness causing disruption and wasted time and effort, therefore saving cost



Flexibility

Flexibility has several distinct meanings but is always associated with an operation's *ability to change*

Change what ?

- The products and services it brings to the market – *Product/service flexibility*
- The mix of products and services it produces at any one time – *Mix flexibility*
- The volume of products and services it produces – *Volume flexibility*
- The delivery time of its products and services – *Delivery flexibility*

What does Flexibility mean in ...

... a hospital?



- Introducing new treatments
- Providing a wide range of treatments
- The ability to adjust the number of patients treated
- The ability to reschedule appointments

What does Flexibility mean in ...

... an automobile plant?



- The introduction of new models
- A wide range of options
- The ability to adjust the number of vehicles manufactured
- The ability to reschedule manufacturing priorities

What does Flexibility mean in ...

... a bus company?



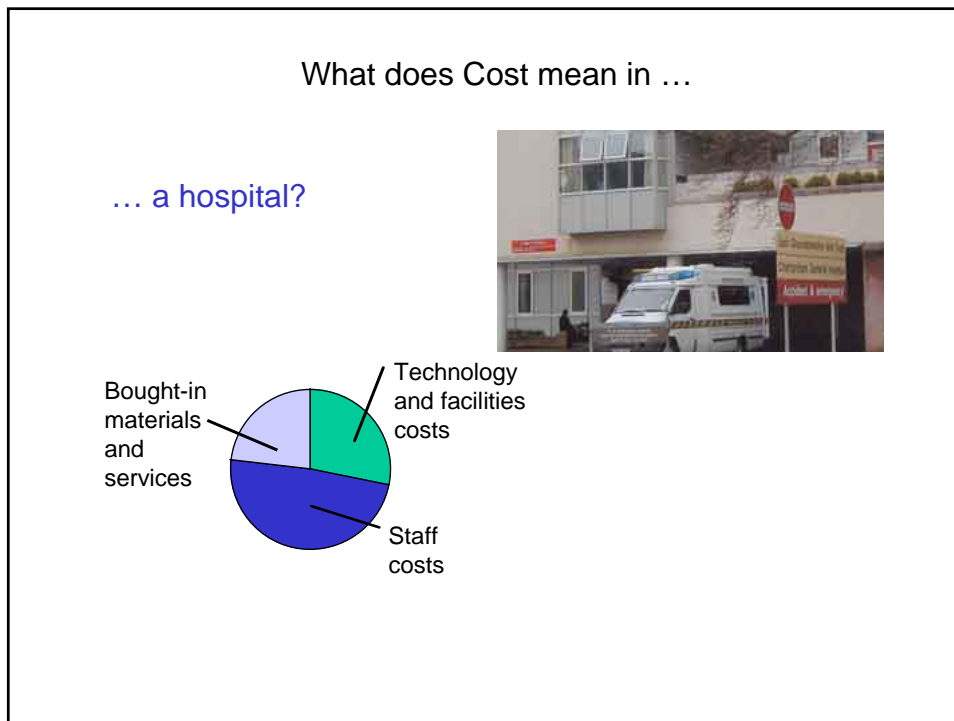
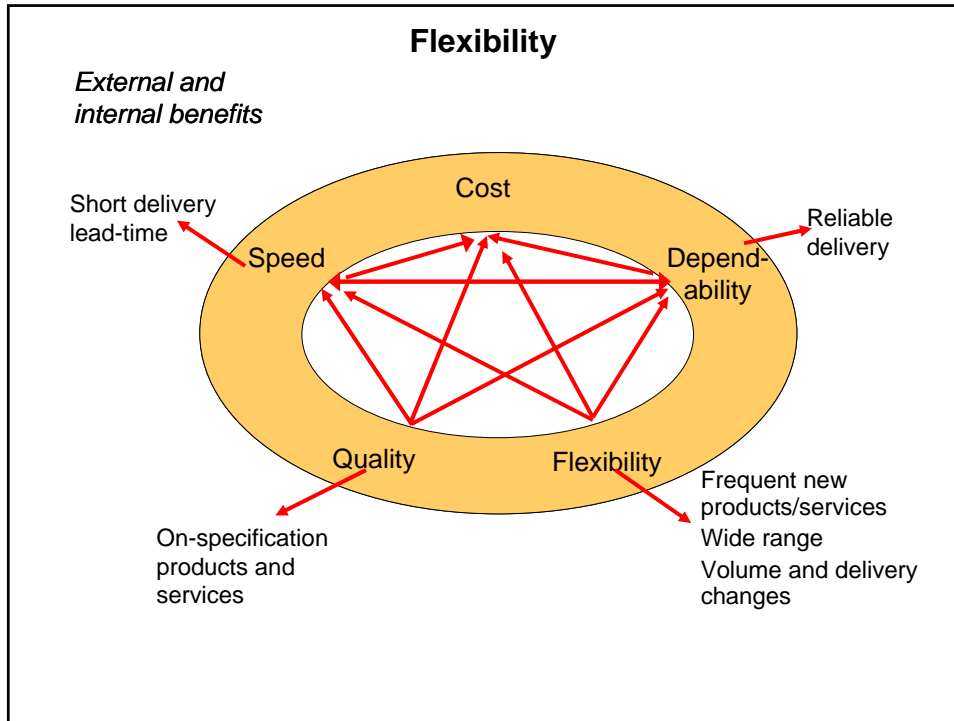
- The introduction of new routes and excursions
- A large number of locations served
- The ability to adjust the frequency of services
- The ability to reschedule trips

What does Flexibility mean in ...

... a supermarket?

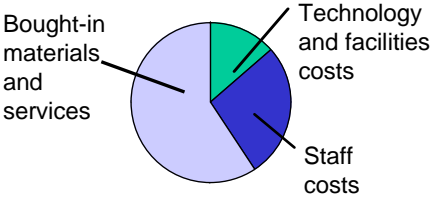


- The introduction of new lines
- A wide range of goods stocked
- The ability to adjust the number of customers served
- The ability to get out-of-stock items



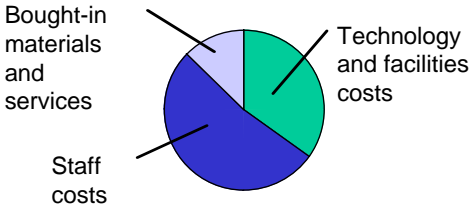
What does Cost mean in ...

... an automobile plant?



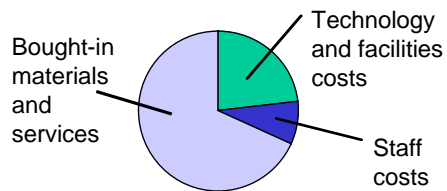
What does Cost mean in ...

... a bus company?



What does Cost mean in ...

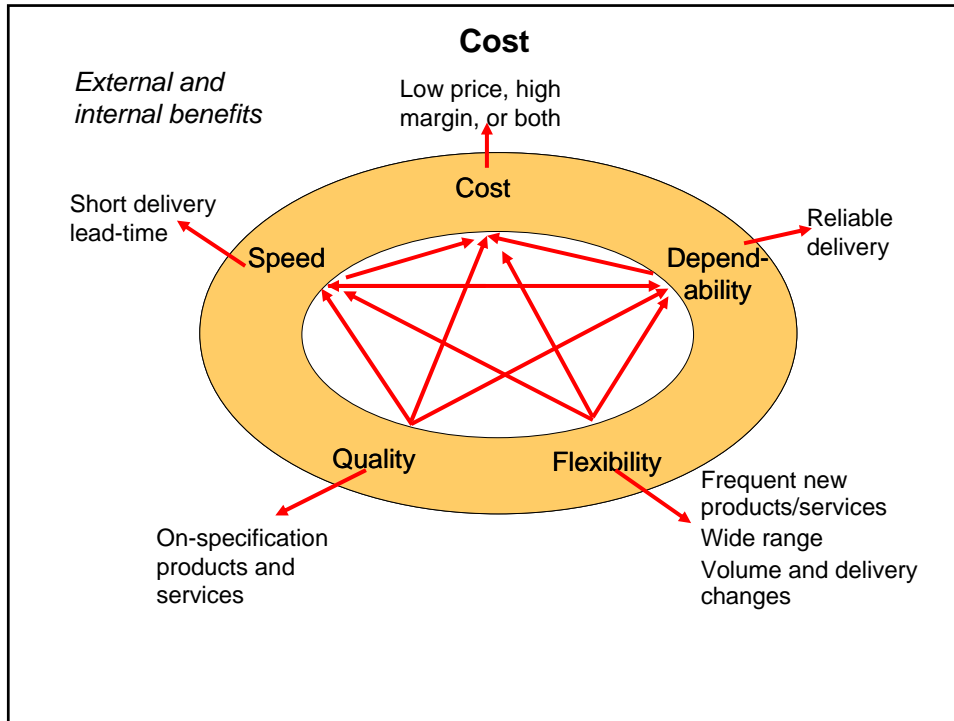
... a supermarket?



Cost

The cost of producing products and services is obviously influenced by many factors such as input costs, but two important sets are ...

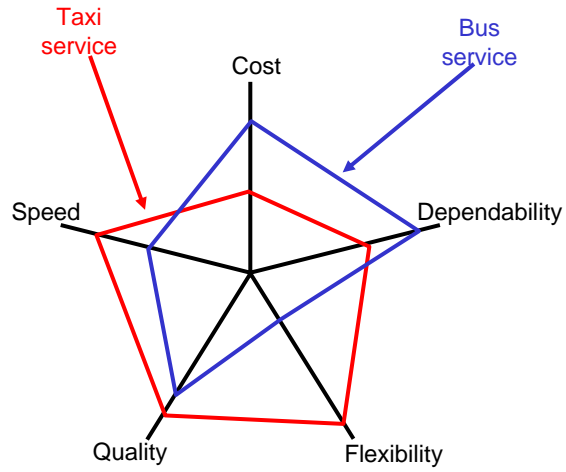
- The 4 V's: volume
variety
variation
visibility
- The internal performance of the operation in terms of
quality
speed
dependability
flexibility



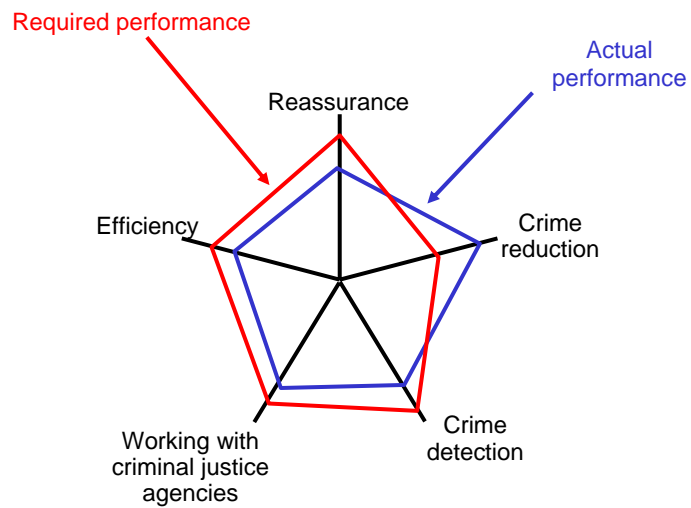
Polar diagrams

- Polar diagrams are used to indicate the relative importance of each performance objective to an operation or process
- They can also be used to indicate the difference between different products and services produced by an operation or process

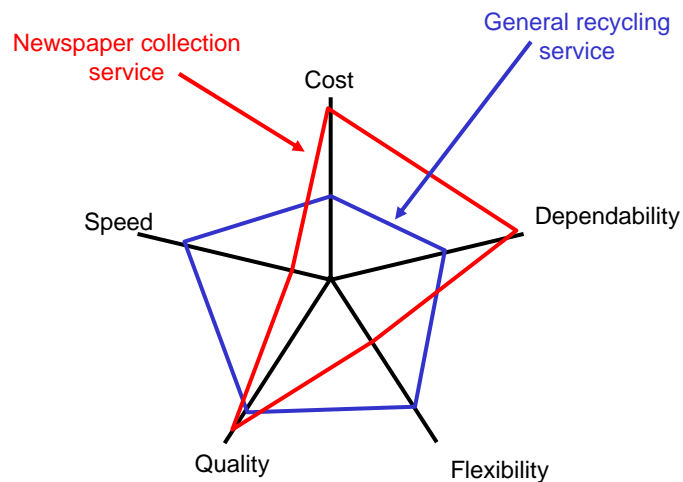
Polar diagrams for a taxi service versus a bus service



Polar diagrams for a proposed police performance method



Polar diagrams for newspaper collection and general recycling services



Key Terms Test

The four-stage model of operations contribution

A model devised by Hayes and Wheelwright that categorizes the degree to which operations management has a positive influence on overall strategy.

Quality

There are many different approaches to defining this. We define it as consistent conformance to customers' expectations.

Speed

The elapsed time between customers requesting products or services and receiving them.

Key Terms Test

Dependability

Delivering, or making available, products or services when they were promised to the customer.

Flexibility

The degree to which an operation's process can change what it does, how it is doing it, or when it is doing it.

Product/service flexibility

The operation's ability to introduce new or modified products and services.

Key Terms Test

Mix flexibility

The operation's ability to produce a wide range of products and services.

Volume flexibility

The operation's ability to change its level of output or activity to produce different quantities or volumes of products and services over time.

Delivery flexibility

The operation's ability to change the timing of the delivery of its services or products.

Key Terms Test

Mass customization

The ability to produce products or services in high volume, yet vary their specification to the needs of individual customers or types of customer.

Agility

The ability of an operation to respond quickly and at low cost as market requirements change.

Productivity

The ratio of what is produced by an operation or process to what is required to produce it, that is, the output from the operation divided by the input to the operation.