

ICT158

Introduction to
Information
Systems



Topic 4

Business use of IS



COMMONWEALTH OF AUSTRALIA

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Learning objectives



After completing this topic you should be able to:

- Give examples of typical **business models**
- Describe some of the **pressures** that characterise today's business environment, and some organisational **responses** to these
- List and describe **Porter's five competitive forces**
- Describe the **five strategies** that organisations typically adopt to counter Porter's five competitive forces
- Describe the **components of Porter's value chain**
- Identify some **e-commerce** models

Readings



Gray, H, Issa, T, Pye, G, Troshani, I, Rainer, R K, Prince, B, & Watson, H J. (2015). *Management Information Systems* (First Australasian Edition). Milton (Qld): Wiley. Chapter 2 [available through MyReadings]

Overview



Business models

Organisational environment and pressures

Porter's competitive forces framework

Strategies for competitive advantage

Porter's value chain model

E-commerce



4.1 Business models

4.1.1 Types of business models

- Standard models
- Changing models

4.1.2 Organisational pressures

- Pressures
- Responses - customer focus
- customisation

Business models



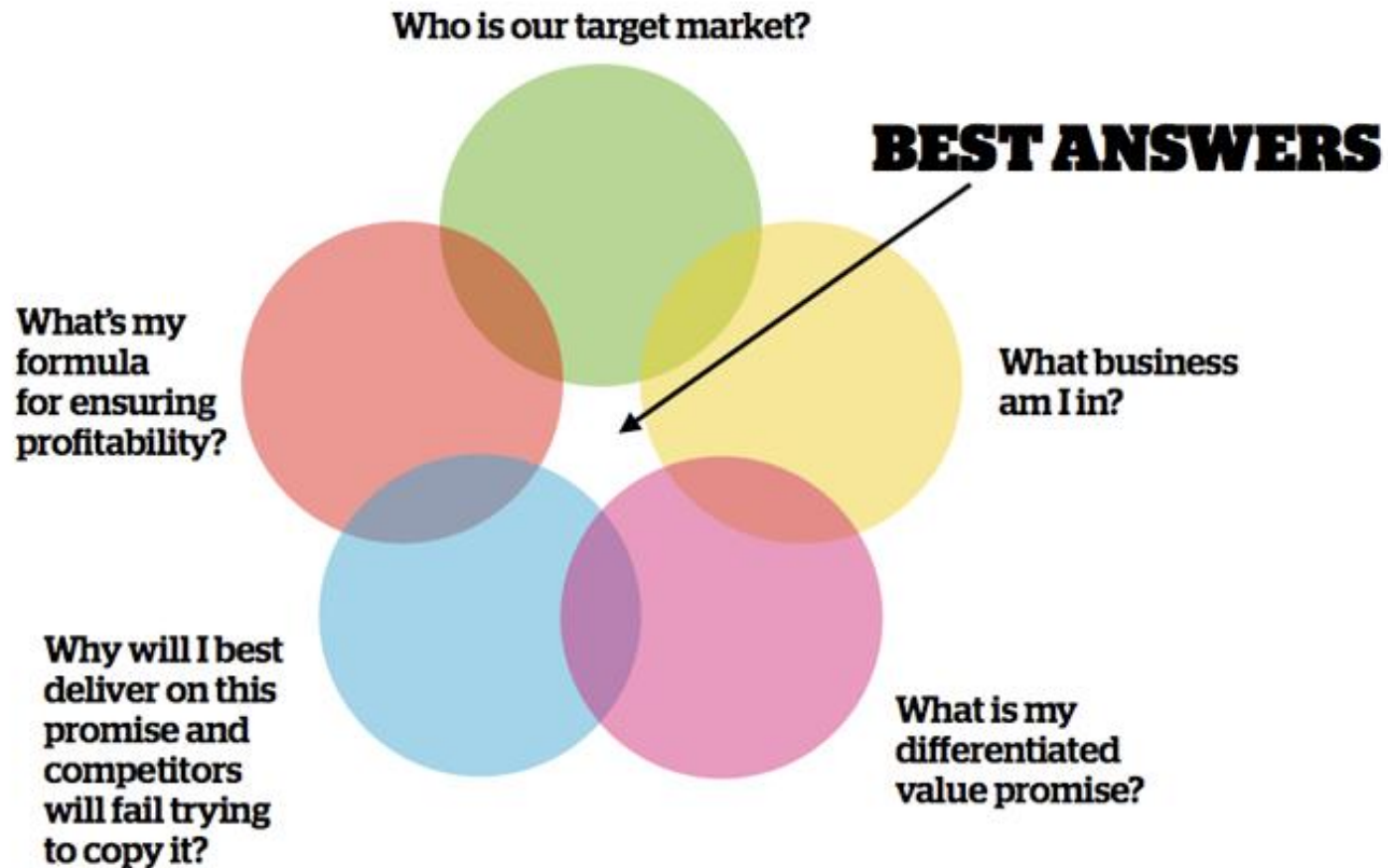
The way in which an organisation does business and makes money in the different contexts in which it operates.

The business model can answer such questions as:

- Who is your target customer?
- What customer problem or challenge do you solve?
- What value do you deliver?
- How will you reach, acquire, and keep customers?
- How will you define and differentiate your offering?
- How will you generate revenue?

We will look at how organisations answer some of these

Finding the 'best' business model



Source: <http://identiture.typepad.com/>

Types of business models



- 1. Manufacturer** - takes raw materials and creates or assembles a product (eg car manufacturers). A manufacturer may sell its products directly to its customers, or it can outsource sales to another company
- 2. Distributor** - any business that purchases products directly from a manufacturer for resale either to retail outlets, or directly to the public (eg car dealership)
- 3. Retailer** - purchases product from a distributor or wholesaler, and then sells those products (only) to the public
- 4. Franchise** - can be a manufacturer, distributor or retailer, depending on what type of franchise is purchased. Here the franchisee adopts the business model of that franchise

Standard business models



- Brokerage – market makers
- Advertising – extension to media broadcast model
- Infomediary – assist in understanding a market
- Merchant – provide goods & services
- Community – user loyalty-driven
- Subscription – users access member only services
- Utility – ‘pay as you go’

Changing business models

Today, the type of business models might depend on how technology is used:

- Bricks & mortar  Bricks & clicks (eg Strand Bags)

Can you think of others?

- Bait & hook (aka razor & blades) (eg Adobe)

Adaptors include:

- Brokerage (eg Webjet) [transaction broker (eg PayPal)]; auctions (eg eBay)
- Virtual marketplace (eg Etsy)
- Virtual merchant (eg Amazon)
- Advertising (eg Yahoo)

Recap



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Different business models describe how organisations go about the process of supplying goods or services to the marketplace. These models apply both to physical and web-based supply.

The organisation in its environment - pressures



The business environment is the combination of *social, legal, economic, physical, and political* factors that affect business activities

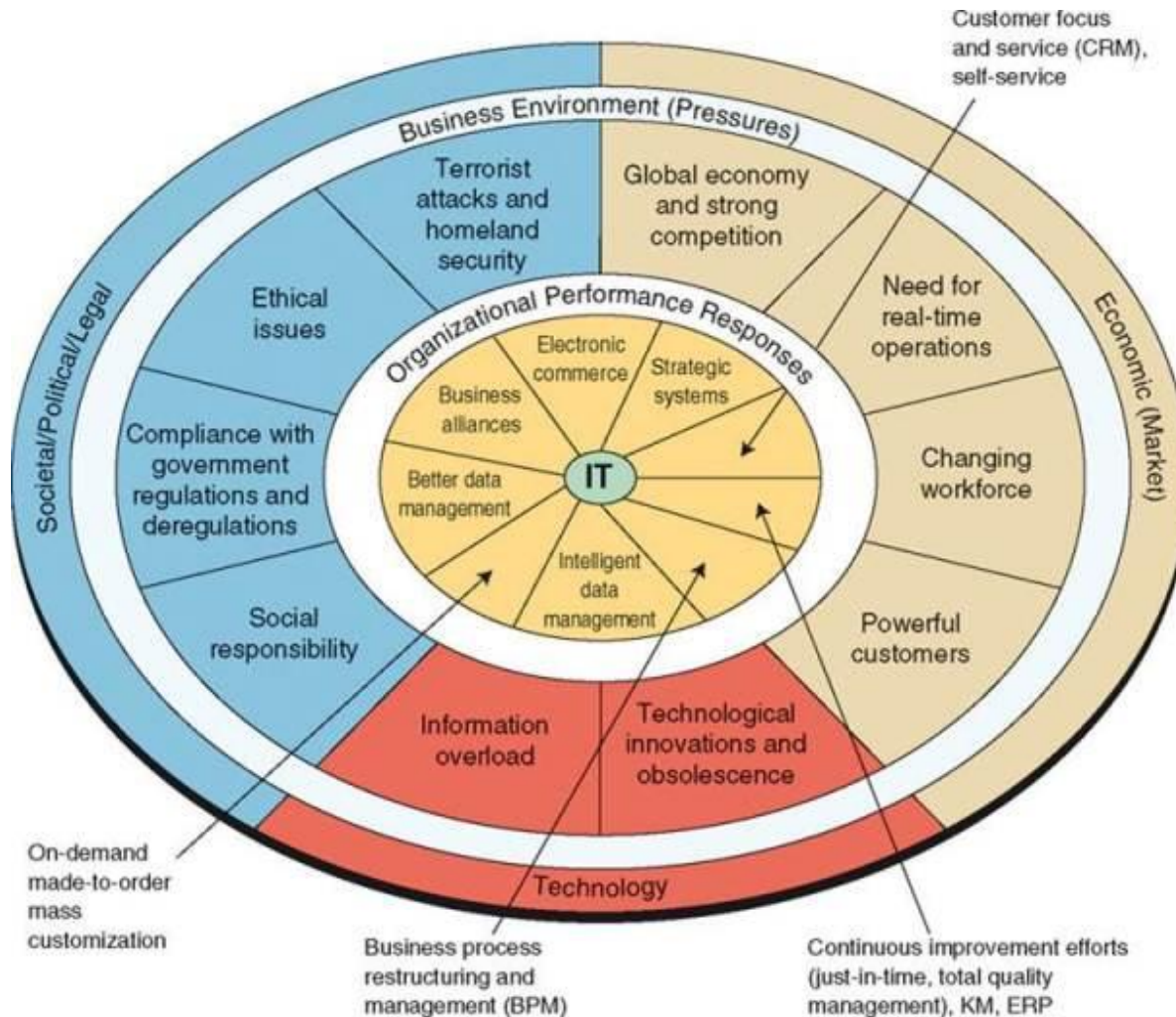
Significant changes in any of these factor are likely to create business pressure on the organisation

The three main types of business pressures faced are **market, technology, and societal** pressures

The organisation in its environment - pressures



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Source: <http://wmakinfs.blogspot.com.au/2013/05/business-pressures-organizational.html>
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Responding to pressures



Organisations respond to such pressures in a variety of ways including:

- Strategic systems
- Customer focus
- Make-to-order and mass customisation
- E-business and eCommerce

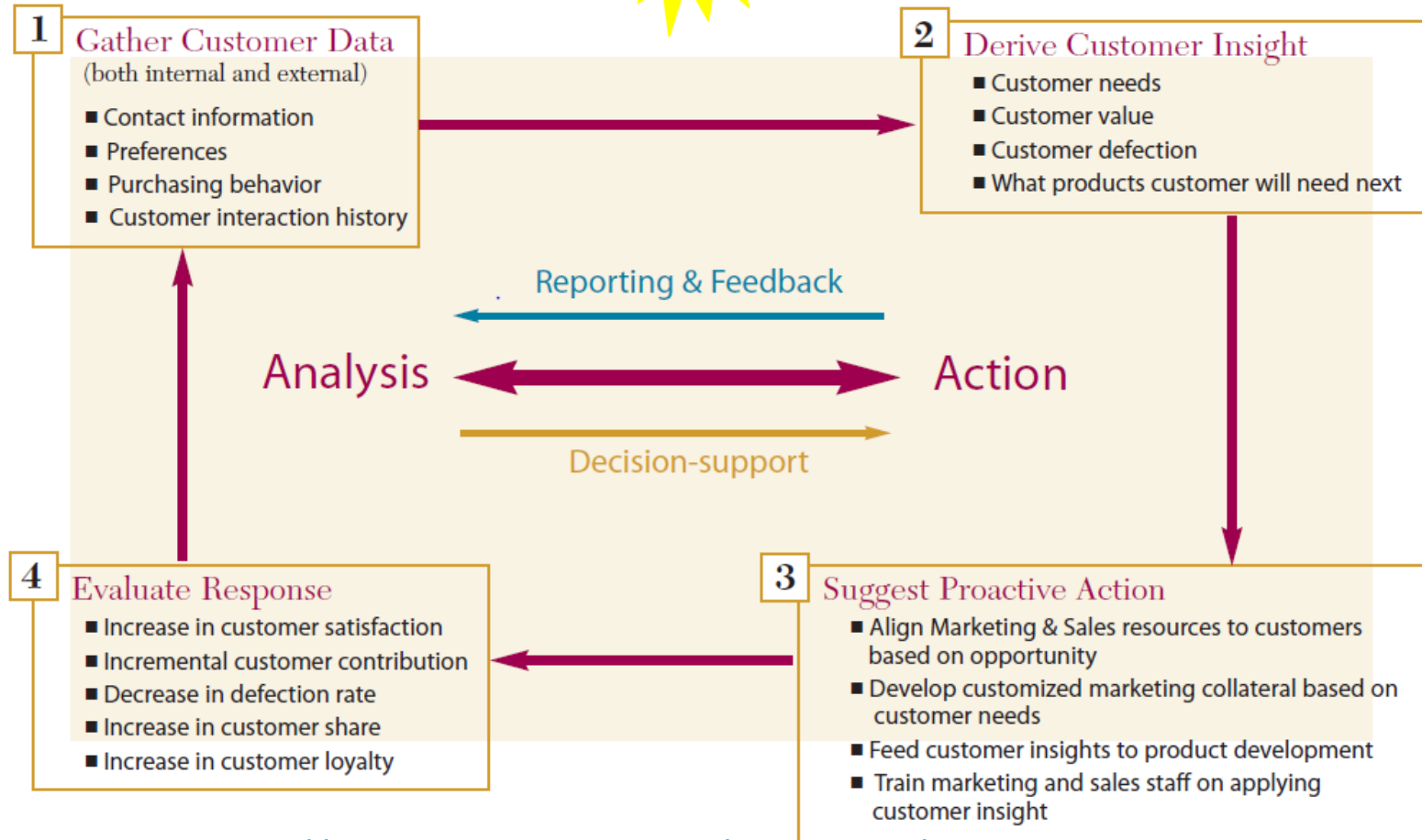
Can you think of other ways?

Customer focus

E.G.



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Source: http://www.tricityretail.com/brochures/wp_customerinsight.pdf

Make-to-order and mass customisation



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E.G.

Custom Jeans



Custom Suits



Custom Leather



HOW IT WORKS



1) Choose your garment and options.



2) Measure yourself. See our step-by-step instructions.



3) We cut your garment from the best fabrics available. Then stitch them and enzyme wash if jeans.



4) We finish and check your garment and deliver them to your door.

Can you find others?

Recap



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The organisation is under pressure from the market, society and technology. It responds to these pressures by trying to differentiate itself from other similar organisations through customer focus, customisation or other strategies



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4.2 Industry structure

4.2.1 Five Forces model

4.2.2 Competitive strategy

4.2.3 Alignment

4.2.4 Value Chain

4.2.5 eCommerce

- Types
- Business models

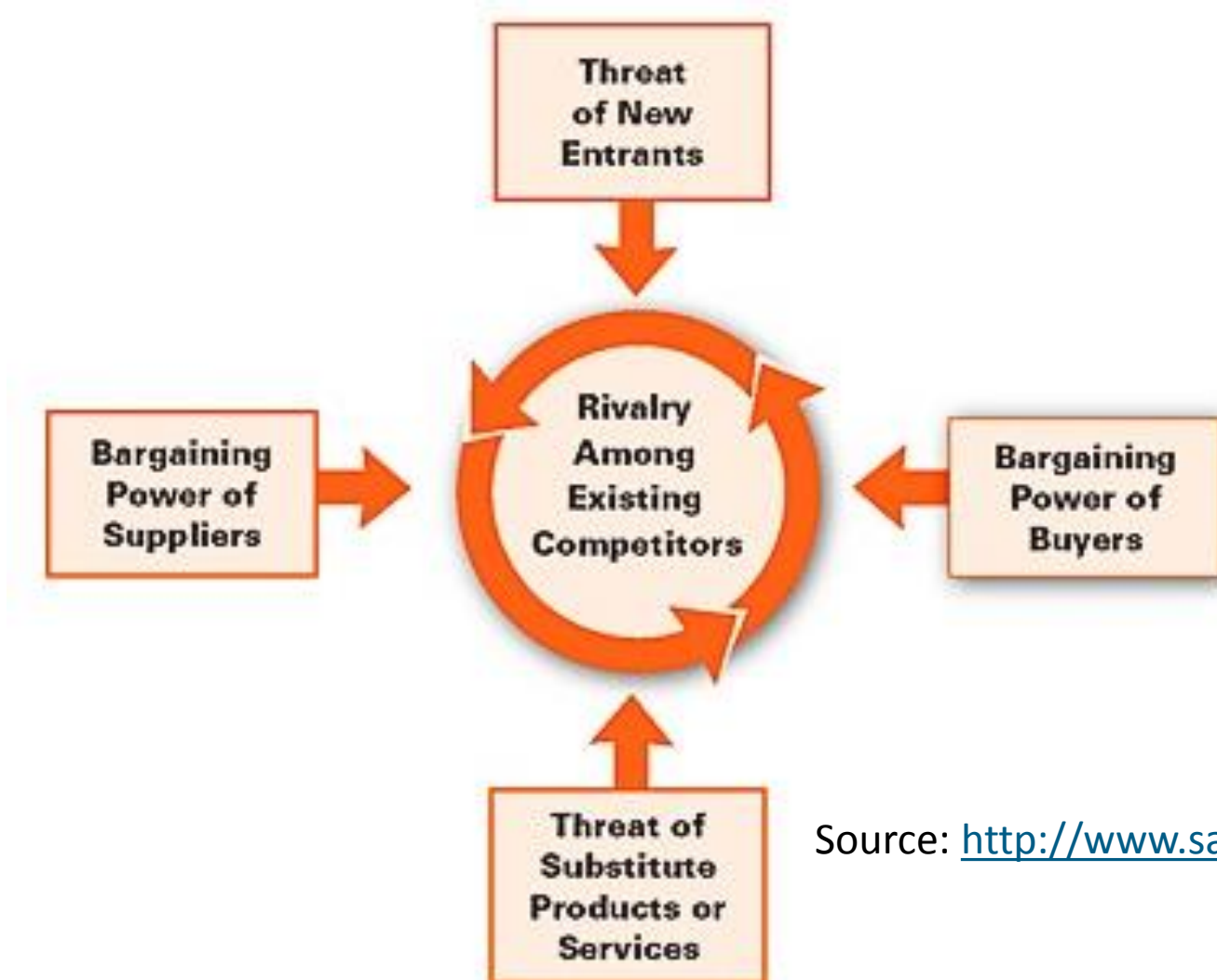
Determining industry structure



A number of models assist in determining the potential profitability (and viability) of an industry:

- Five forces model
- Competitive strategies model
- Value chain

Porter's Five Forces Model



Source: <http://www.sasb.org/five-forces/>

Threat of new entrants



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How much of a threat can be determined by factors including:

- The existence of barriers to entry (eg patents, rights)
- Capital requirements
- Economies of scale
- Product differentiation
- Brand equity
- Switching costs
- Expected retaliation
- Access to distribution
- Customer loyalty to established brands
- Industry profitability

Bargaining power of customers (buyers)

The buyer power is high if the buyer has many alternatives

Affected by (eg):

- Buyer switching costs
- Availability of existing substitute products



Bargaining power of suppliers



Suppliers of raw materials, components, workforce, and services (such as expertise) to the organisation can be a source of power when there are few substitutes

Threat of substitute products or services

The existence of products outside the common product boundaries increases the customers' ability to switch:

- Number of substitute products available in the market
- Ease of substitution



Intensity of competitive rivalry

For most industries the intensity of rivalry is the major determinant of the competitiveness of the industry



Impact of the internet on the Five Forces



The overall impact of the web is to increase competition, which generally diminishes an organisation's profitability:

- - reduces traditional entry barriers
- +/- alternate suppliers vs supply chain integration
- +/- tracking loyalty vs competitive sources
- - substitute products created quickly
- - low cost of digital products

Recap



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Porter's Five Forces model identifies:

- competitive forces - each concerns the danger of customers taking their business elsewhere
- bargaining power forces - depend on availability of substitutes & size of the organisations doing the bargaining

Determining the organisation's structure



Analysing the *structure of the industry* allows an organisation to formulate a competitive strategy

This then can be used to *structure the organisation* to implement that strategy, and to determine the **value** the strategy provides

Strategic planning for competitive advantage



An organisation responds to the structure of its industry by choosing a **competitive strategy**

According to Porter an organisation can engage in one of **four** fundamental strategies, based on

- lower cost
- differentiation
- focus

Porter's competitive strategies



Source: <http://business-fundas.com/wp-content/uploads/2011/01/Competitive-Advantage-Strategies.jpg>

Porter's competitive strategies – a bank



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Cost leadership - charging the

lowest price or rates for its services

Differentiation - be unique in its industry or products in areas that are highly valued by its clients. This uniqueness is rewarded by charging a premium price

Focus - select a segment or group of segments in the industry and tailor strategy to serving them effectively and efficiently to the exclusion of others

Recap



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Porter defined the four types of competitive advantage an organisation can achieve relative to its rivals:

- *lower cost*

- *differentiation*

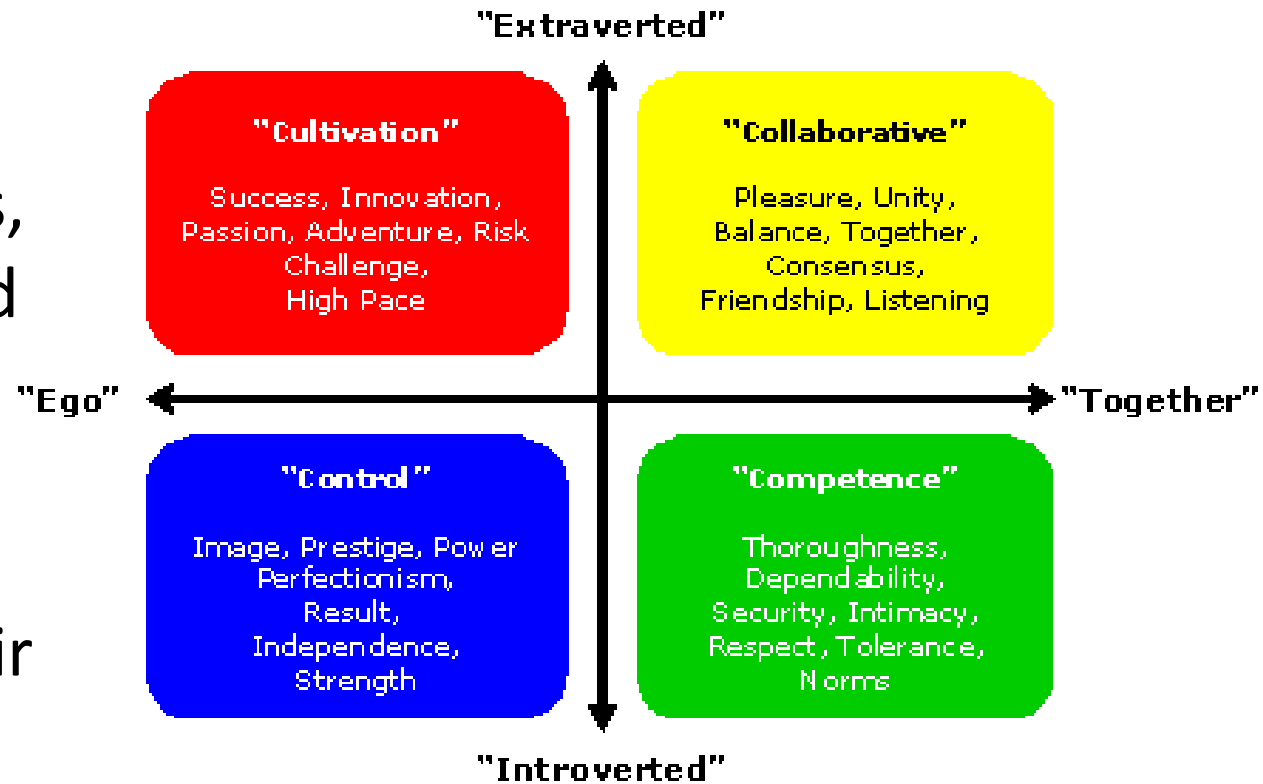
and may also focus on either (giving 2 more)

Alignment



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In order to assure long-term success, organisations need to **align** their strategy, their organisational structure, and their organisational culture



Source :

<http://www.advancebusinessconsulting.com/advance!/strategic-alignment/choosing-the-right-businessmodel.aspx>

Further strategies for competitive advantage



- *Innovation* – disrupting the existing marketplace
- *Operational effectiveness* – more pleasurable to do business with
- *Customer-orientation* – meeting customer needs and desires

Alignment - strategic planning for competitive advantage



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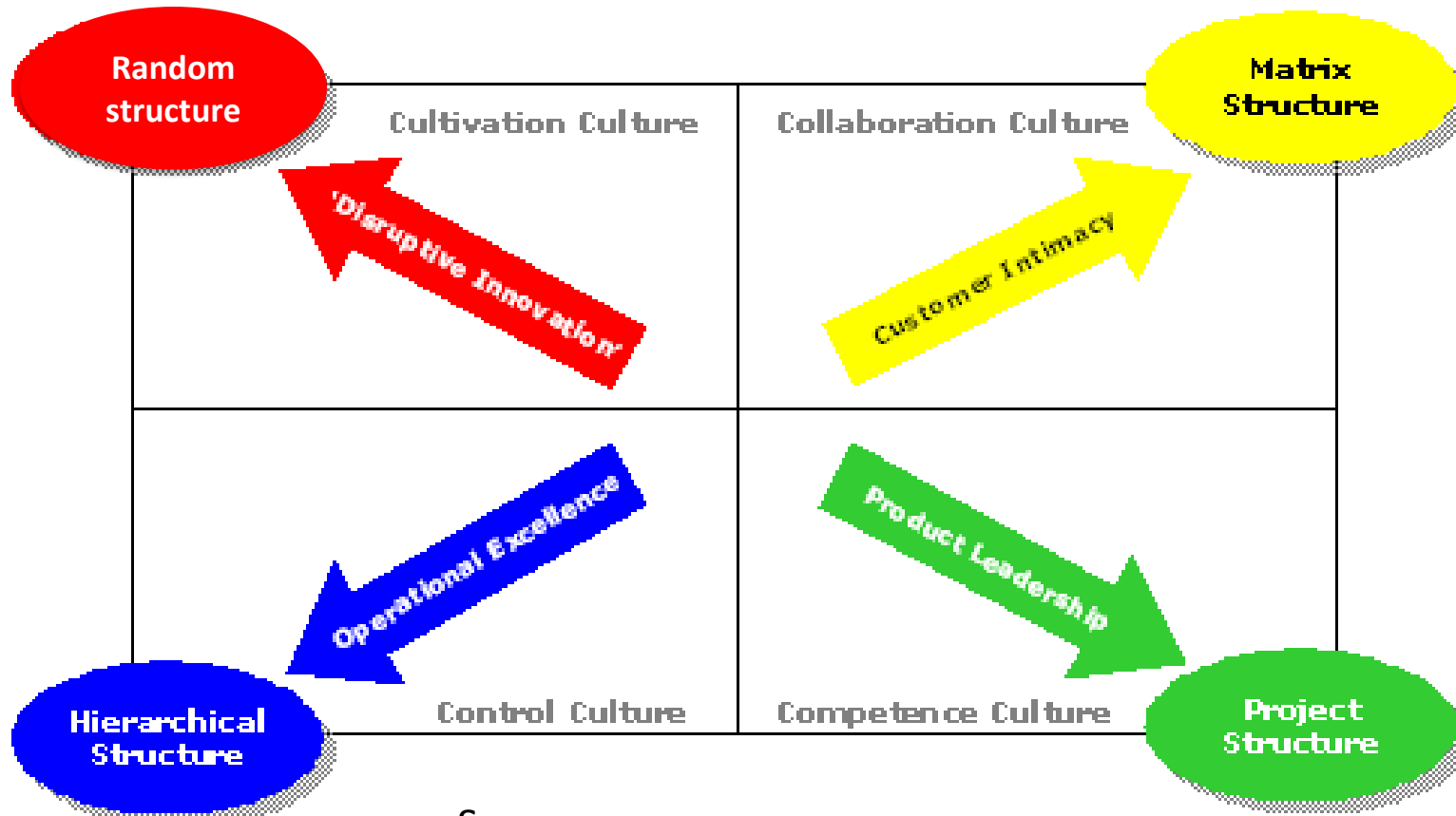
Factors That Lead to Attainment of a Competitive Advantage	Alter Industry Structure	Create New Products and Services	Improve Existing Product Lines and Services
Rivalry among existing competitors	Blockbuster changes the industry structure with its chain of video and music stores.	Dell, Gateway, and other PC makers develop computers that excel at downloading Internet music and playing the music on high-quality speakers.	Food and beverage companies offer "healthy" and "light" product lines.
Threat of new entrants	H-P and Compaq merge to form a large Internet and media company.	Apple Computer introduces an easy-to-use iMac computer that can be used to create and edit home movies.	Starbucks offers new coffee flavors at premium prices.
Threat of substitute products and services	Ameritrade and other discount stockbrokers offer low fees and research on the Internet.	Wal-Mart uses technology to monitor inventory and product sales to determine the best mix of products and services to offer at various stores.	Cosmetic companies add sunscreen to their product lines.
Bargaining power of buyers	Ford, GM, and others require that suppliers locate near their manufacturing facilities.	Investors and traders of the Chicago Board of Trade (CBOT) put pressure on the institution to implement electronic trading.	Retail clothing stores require manufacturing companies to reduce order lead times and improve materials used in the clothing.
Bargaining power of suppliers	American Airlines develops SABRE, a comprehensive travel program used to book airline, car rental, and other reservations.	Intel develops SpeedStep, a chip for laptop computers, that operates at faster speeds when connected to an electrical outlet.	Hayworth, a supplier of office furniture, has a computerized-design tool that helps it design new office systems and products.



Organisational structure for organisational culture



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Source :

<http://www.advancebusinessconsulting.com/advance!/strategic-alignment/choosing-the-right-businessmodel.aspx>

Recap



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Other strategies for competitive advantage
are based on the concept of alignment, and
include:

- *Innovation*
- *Operational effectiveness*
- *Customer-orientation*



The value chain

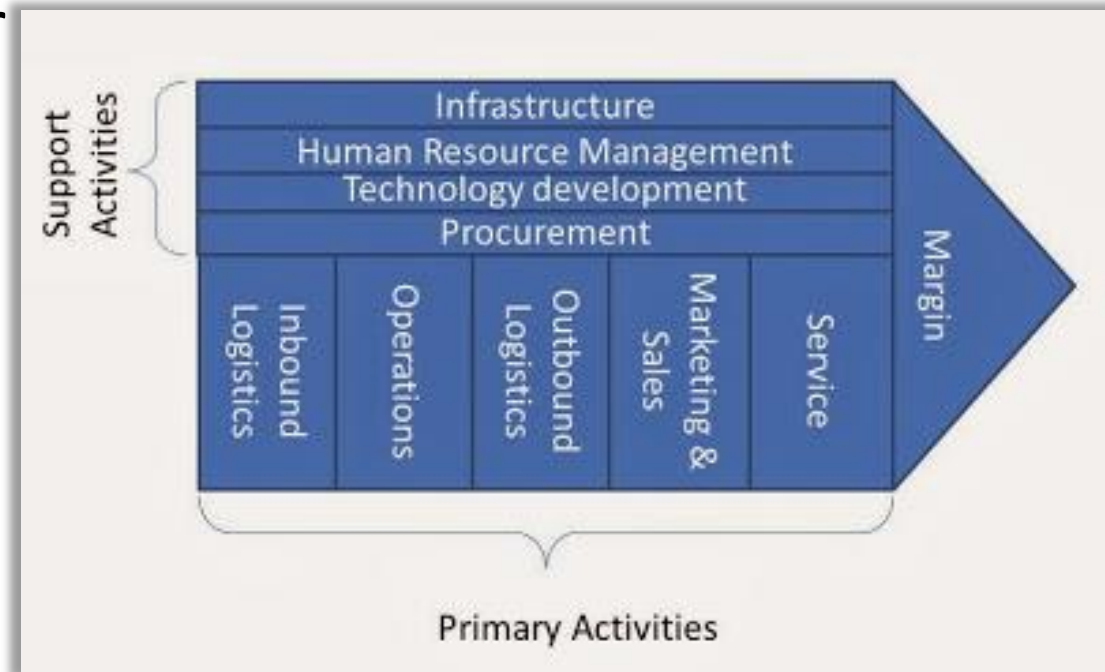
A value chain is a set of activities that a firm operating in a specific industry performs in order to deliver a valuable product or service for the market

An organisation positions itself within the **value chain** of its industry in order to determine how it intends to sustain itself, which often means how to generate revenue

The processes and systems it establishes must create sufficient value to more than cover the costs

Porter's Value Chain

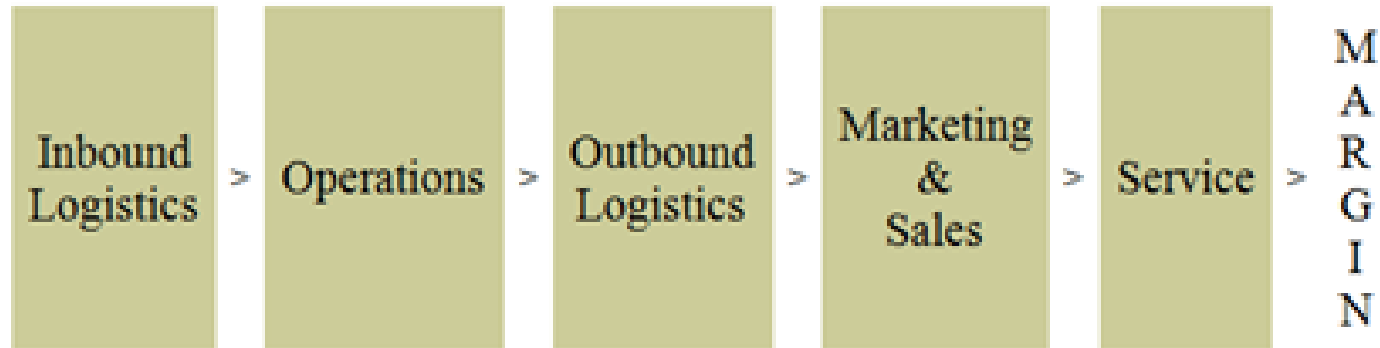
The appropriate level for constructing a value chain is the business unit. Products pass through activities of a chain in order, and at each activity the product gains some value.



The chain of activities gives the products more added value than the sum of added values of all activities

Source: <http://www.ifm.eng.cam.ac.uk/research/dstools/value-chain-/>

Primary activities

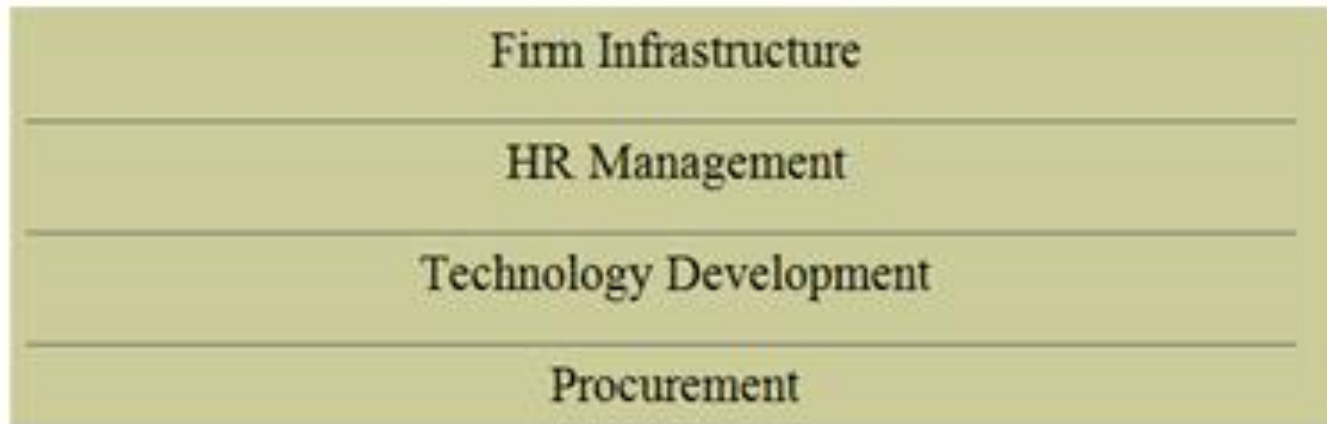


- Inbound logistics
- Operations
- Outbound logistics
- Marketing & sales
- Service

Source:

<http://www.studyblog.net/2008/06/the-value-chain/>

Secondary/support activities



- Procurement
- Technological development
- HR management
- Infrastructure

Source:

<http://www.studyblog.net/2008/06/the-value-chain/>

Drivers related to value chains



Cost:

- Economies of scale
- Learning
- Capacity utilisation
- Linkages among activities
- Interrelationships among business units
- Degree of vertical integration
- Timing of market entry
- Firm's policy of cost or differentiation
- Geographic location
- Institutional factors (regulation, union activity, taxes, etc.)

Differentiation/uniqueness:

- Policies and decisions
- Linkages among activities
- Timing
- Location
- Interrelationships
- Learning
- Integration
- Scale (e.g. better service as a result of large scale)
- Institutional factors

Recap



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*Porter's Value Chain helps determine the
value provided by a competitive strategy*

*A organisation develops a cost advantage
by controlling drivers better than do the
competitors*

Electronic Commerce



eCommerce can be defined as conducting business transactions using computers and telecommunications networks

Business processes that are ideal candidates for e-commerce are those that in their current form tend to be paper-based and time-consuming

eCommerce tends to require EFT (electronic funds transfer) facilities to be in place

Types of eCommerce



Business-to-business (B2B)

- Allows manufacturers to buy at a low cost worldwide
- Enterprises can sell to a global market
- Offers great promise for developing countries

Business-to-consumer (B2C)

- customers deal directly with the organisation, avoiding any intermediaries (disintermediation) (eg the role of the travel agent has changed drastically from one of selling travel to one of providing information (reintermediation))
- Convenience for the consumer
- Allows for comparison shopping

Consumer-to-consumer (C2C)

- participants are individuals, with one serving as the buyer and the other as the seller (eg auctions and classified ads)

Business-to-employee (B2E)

- Allows an organisation to provide services to its employees (eg training, information, sales) via the intranet

Types of eCommerce



eGovernment

- Delivery of information & public services to citizens (eg centrelink payment direct to bank accounts; rate payment)

mCommerce

- eCommerce conducted entirely in a wireless environment

Business models for eCommerce



Each type of eCommerce is executed within a business model, many variations of the 'standard' models, others specific to eCommerce (eg ecoops, viral marketing)

How would you define the business model for *Scoopon* & others like it?

Recap



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Conducting business transactions using computers and telecommunications networks is referred to as eCommerce.

There are a number of types of eCommerce models, including B2B, B2C and eGovernment.

Summary



Organisations strive for **competitive advantage**

A number of models help then analyse their business in order to achieve this. These include business models, Porter's **Five Forces** and **Value Chain** models

A number of strategies, including **cost leadership** and **differentiation** assist organisations in responding to environmental and industry pressures

Resources used in this topic



Gray, H, Issa, T, Pye, G, Troshani, I, Rainer, R K, Prince, B, & Watson, H J. (2015). *Management Information Systems (First Australasian Edition)*. Milton (Qld): Wiley.

Chapter 2 and components of Ch 9 (eCommerce))

Rappa, M. (2010). Business models on the web in *Managing the Digital Enterprise* Retrieved from <http://digitalenterprise.org/models/models.pdf>