

# Session 3

World Med MBA

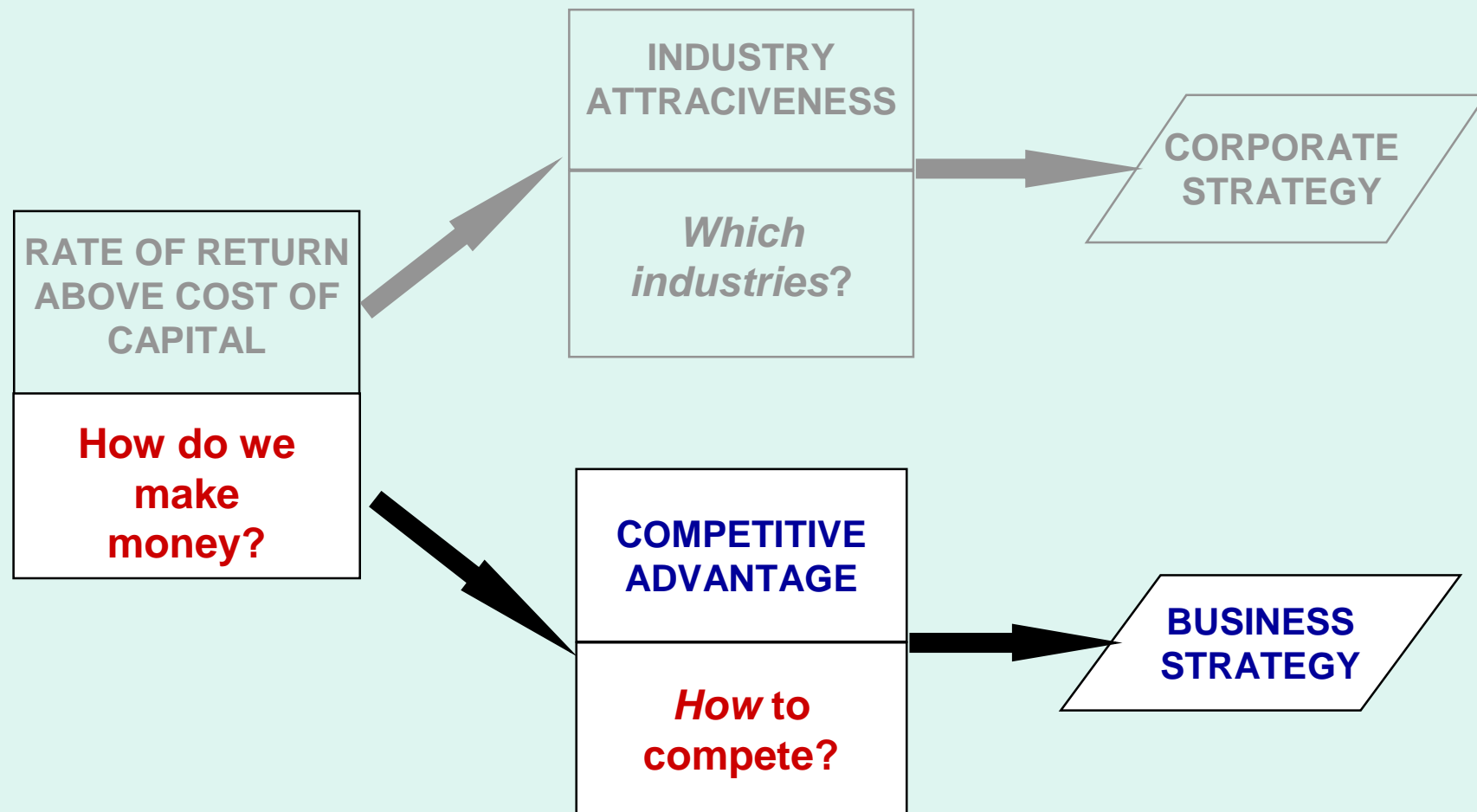
# What is strategy?

- Strategy
  - The determination of long term objectives, actions, alternatives and resources
  - A set of actions to accomplish a particular high level objective
  - A programme that sets out objectives, policies and resource allocations

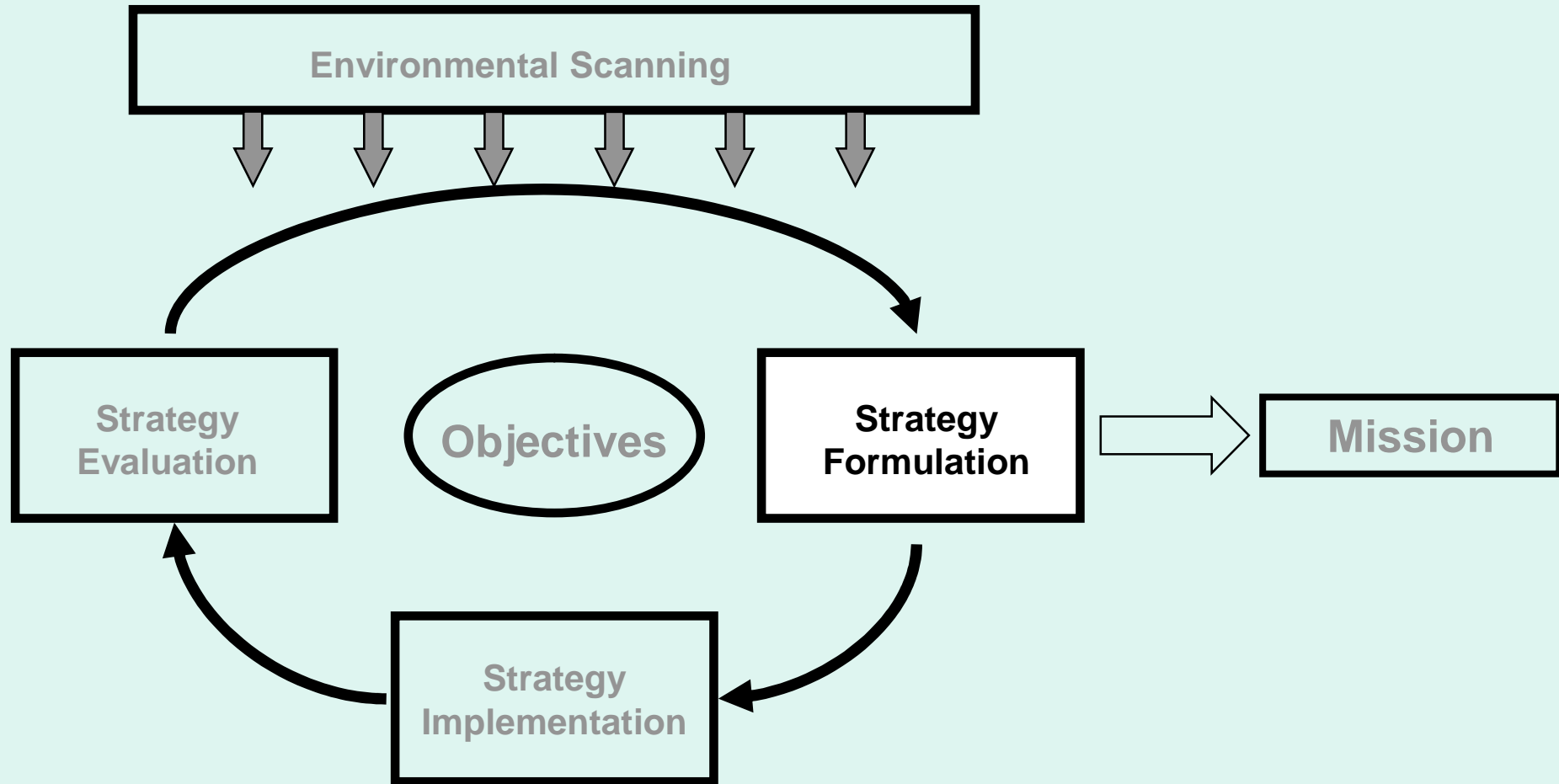
# Strategic Planning



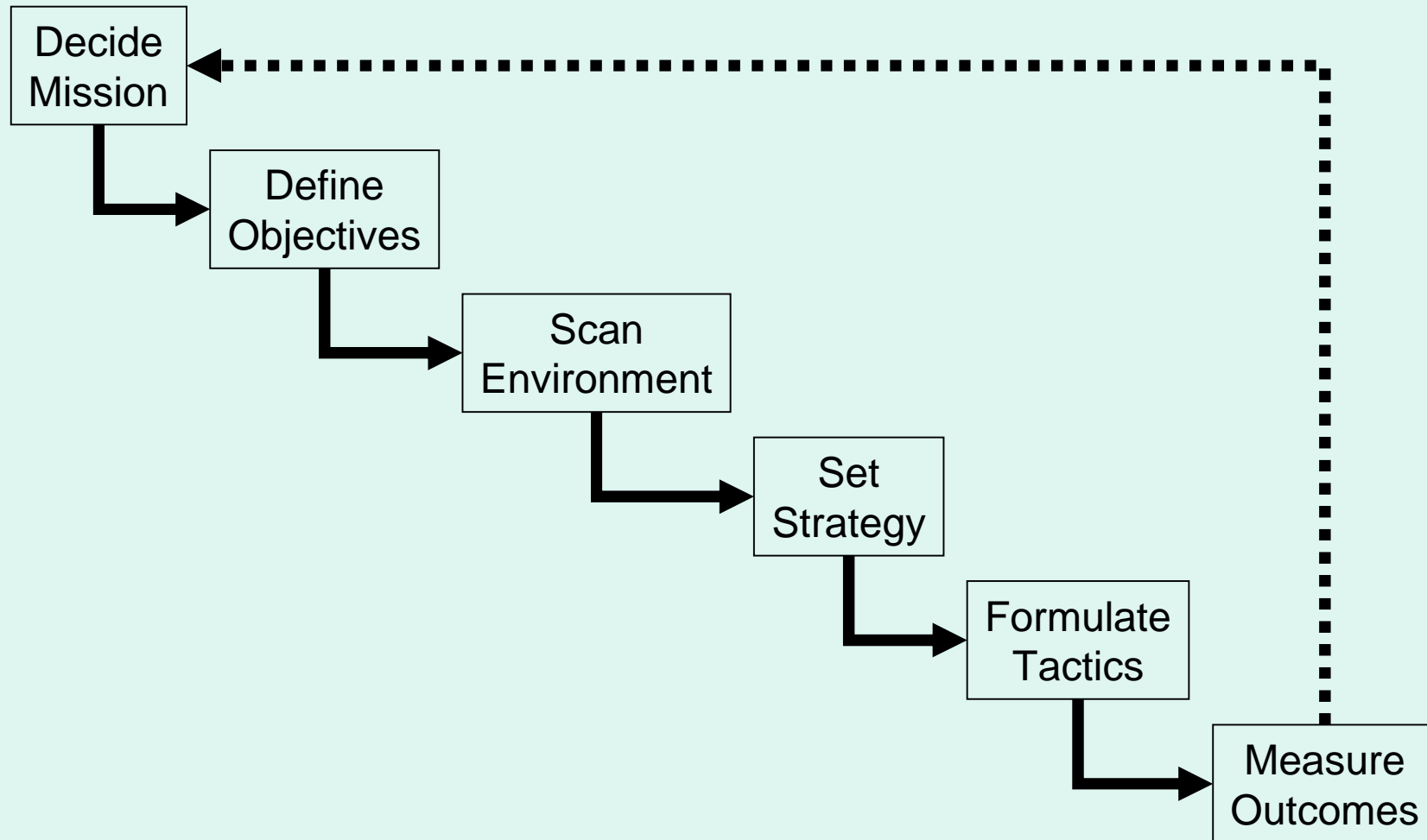
# Two levels of strategy



# Strategic Planning



# Strategic Planning Loop



# Business Strategy



# Business Strategies

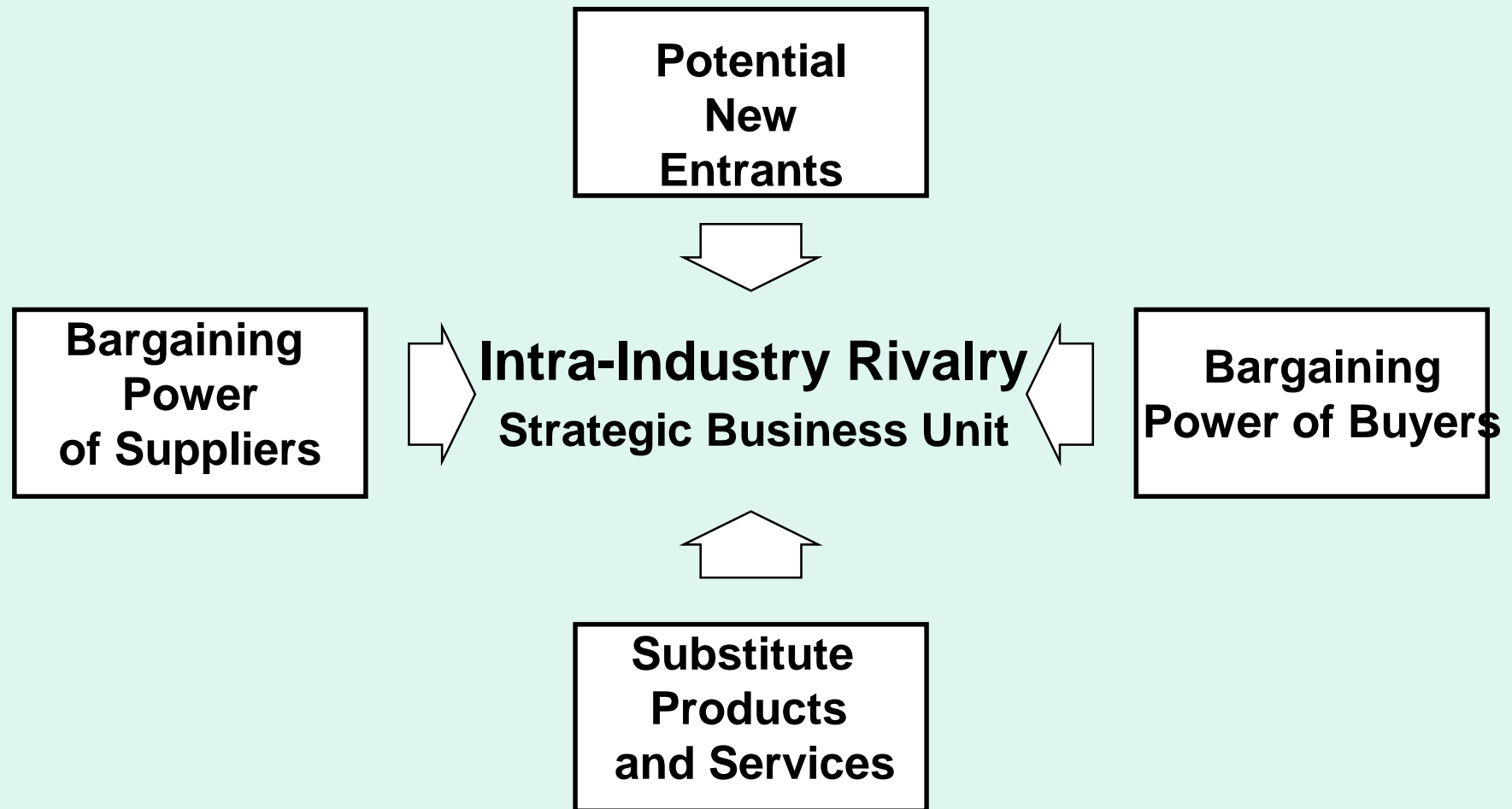
- There are many views of competitive advantage, however, we will focus on one of the most familiar frameworks - The model attributed to Michael Porter of the Harvard Business School.



# Business Strategies (Porter)

- **Intra-industry Rivalry:**
  - The focus is the Strategic Business Unit (SBU) and its rivals.
- **Buyers:**
  - The major customers of the SBU.
- **Suppliers:**
  - The major suppliers to the SBU.
- **New Entrants:**
  - New competitors or existing companies that now compete with the SBU.
- **Substitutes:**
  - An alternative to doing business with the SBU.

# Business Strategies (Porter)



# Business Strategies (Porter)

**Cost Leadership Strategies**

**Differentiation Strategies**

**Innovation Strategies**

**Growth Strategies**

**Alliance Strategies**

**Primary  
Strategies**

**Supporting  
Strategies**

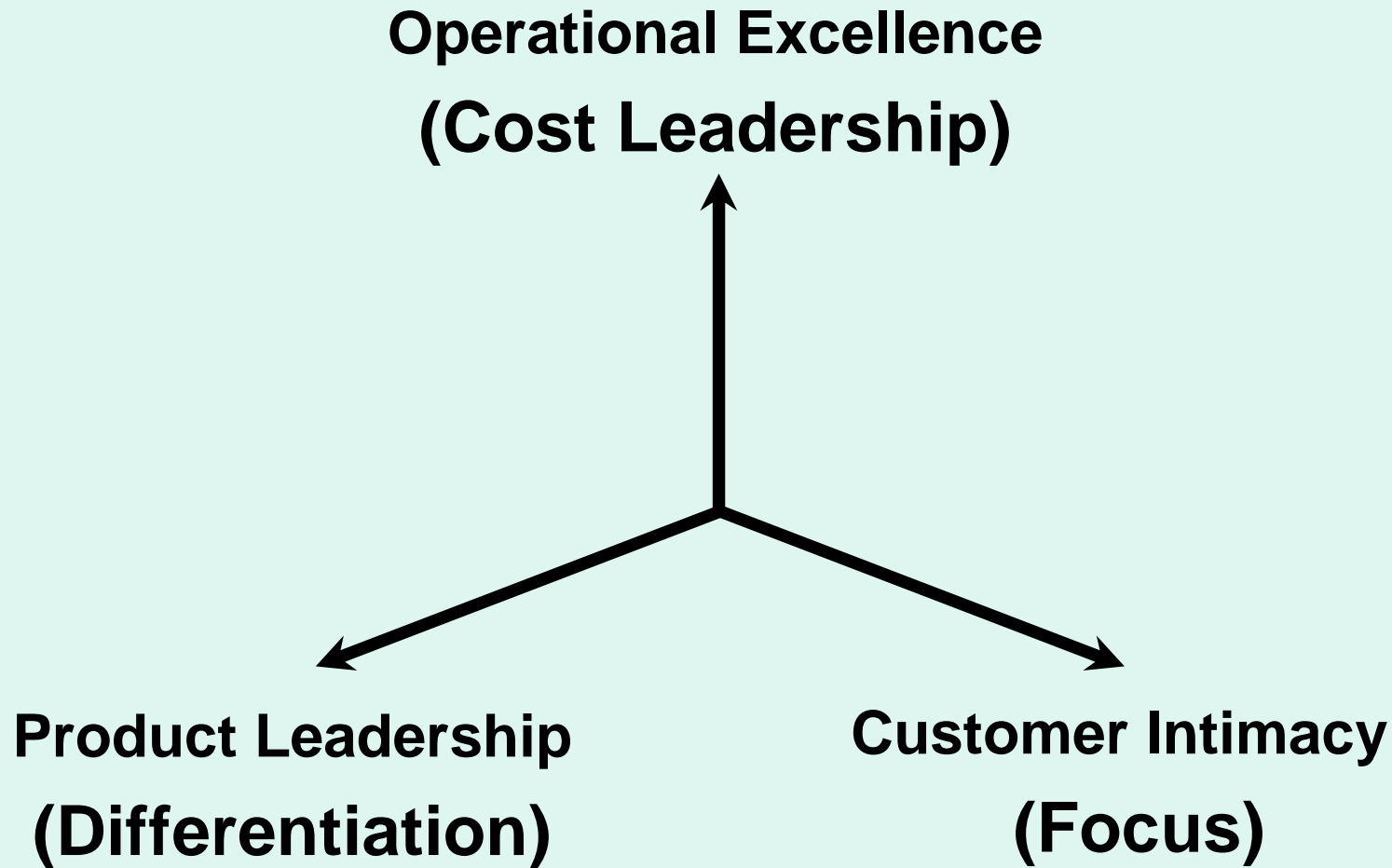
# Business Strategies (Porter)

- Porter puts forward two routes to competitive advantage:
  - Cost Leadership
  - Product Differentiation
- These two basic routes come three strategies for pursuing competitive advantage.
  - Cost
  - Differentiation
  - Focus

# Business Strategies (Porter)

Competitive Scope	Cost	Differentiation
Broad Target	Cost Leadership	Differentiation
Narrow Target	Cost Focus	Differentiation Focus

# Business Strategies (Porter)



# Strategy 1 - Cost Leadership

- The firm sets out to become the lowest cost producer in its sector rather than one of several firms.
- Typically cost leaders sell a basic product or commodity.
- To be a cost leader the company must seek out and exploit every source of potential cost advantage.

# Strategy - Cost Leadership

- Concerned with pursuing economies of scale and absolute cost advantages.
- The product is unsophisticated, and any services provided are basic.

But

- The product and/or service must be perceived as acceptable and comparable to its competitors.
- A cost leader must maintain parity with its competitor's performance while out performing them on price.



# Strategy 2 - Differentiation

- The firm seeks to be the best performer in its sector in some dimension of the product or service which is highly valued by buyers (other than cost).
- It must then seek out one an attribute of its performance, that customers perceive as important and position itself to uniquely meet those needs.

# Strategy - Differentiation

- The firm is rewarded by a premium for its distinctive product or service.
- Several different firms can simultaneously pursue successful differentiation strategies in the same industrial sector.

But

- Although a premium is paid for the company's uniqueness the company must also maintain some degree of parity with its competitor's cost levels.

# Strategy 3 - Focus

- This strategy is based on the selection of a particular segment or group, within the industry as a whole, which is to be targeted.
- A company whose strategic advantage lies in focus will select its niche and, having found it, will tailor its strategy specifically to serve the needs of its particular client group.

# Strategy - Focus

- The focuser seeks competitive advantage in its own segment; although it need not possess an overall competitive advantage.

But

- To be successful the focuser must exploit the under-performance of its more broadly based competitors on either cost or of differentiation.

# Business Strategies (Porter)

- Under normal market conditions the three strategies are mutually exclusive
  - Some exceptions:
    1. Where the competition is inefficient e.g. first mover into a new market
    2. Where a firm creates a technological innovation that competitors can not follow
    3. Where cost is strongly affected by structural interrelationships and cost / task sharing

# Business Strategies (Porter)

Competitive Scope	Cost	Differentiation
Broad Target	Dell?	Amazon?
Narrow Target	eBay?	iPod?

# Porter and Technology

- Porter acknowledges technology as one of the principal drivers of competition.
- It plays a major role in both the structural change of existing industries as well as in the creation of new industries.
- Technology both creates new opportunities for competition and plays a central part in existing competitive strategies through its ubiquitous presence in the value chain.

# Porter and Technology

- Porter adopts a broad concept of technology. As the firm is a collection of activities it is therefore also a collection of technologies.
- He points out that technology is not only embedded in primary activities but also in support activities.
- Any of the technologies involved can have a significant impact on the firm's value chain and overall competitive position.



# Porter and Technology

- He notes that "Information Technology" and "Information Systems" are particularly important in this role as every activity creates and uses information.
- He also notes that office or administrative technologies - often neglected or subsumed beneath the umbrella term of information systems - also have an important role to play.

# Strategic Alignment



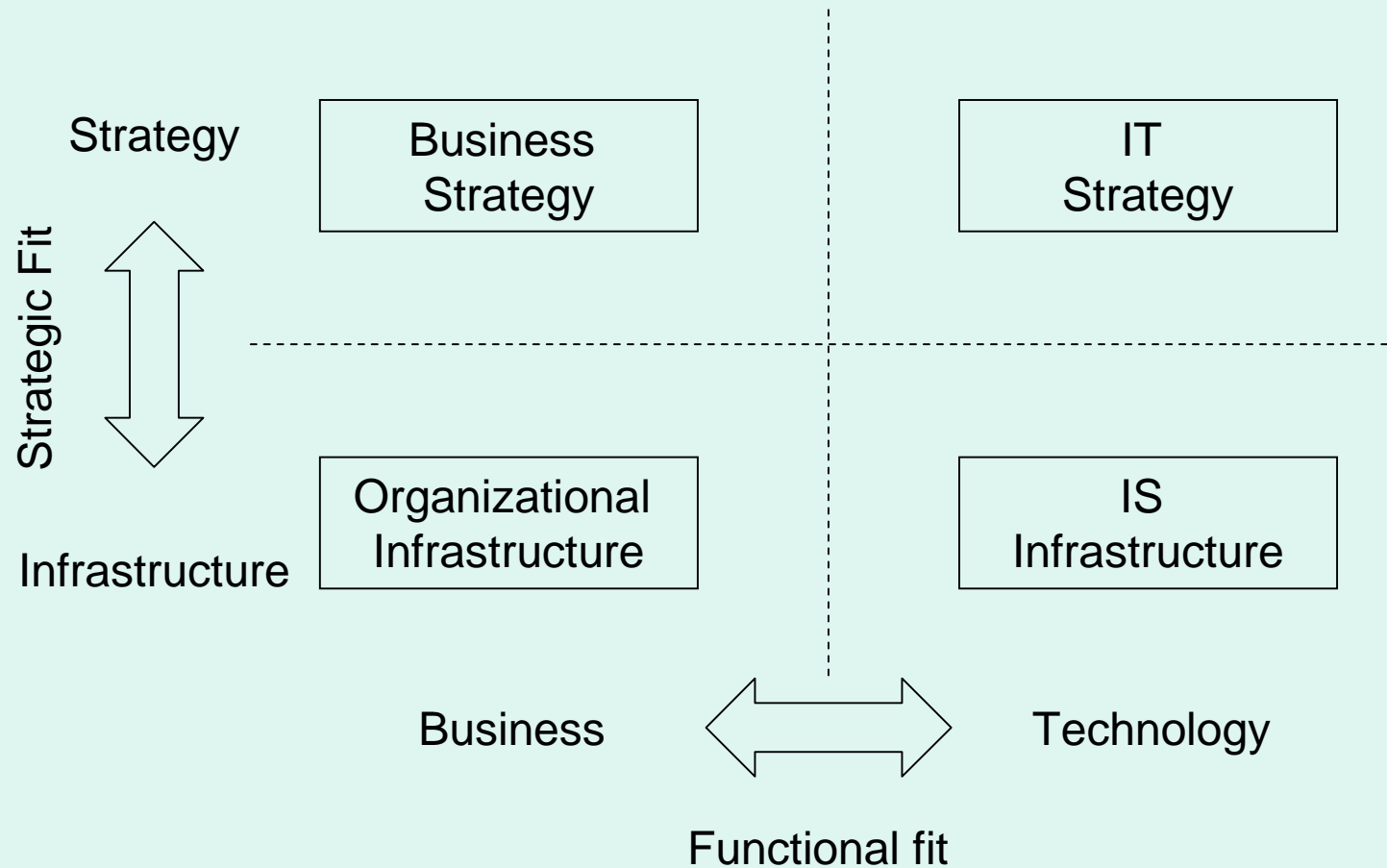
# Strategic Alignment

- The idea of aligning business and IT strategy is central to this course
- Although it sounds simple, aligning business and IT strategy is less straightforward than it sounds
- Henderson and Venkatraman (1993) were among the first to try to deal with all the possible links between IT and Business Strategy

# Strategic Alignment

Henderson and Venkatraman

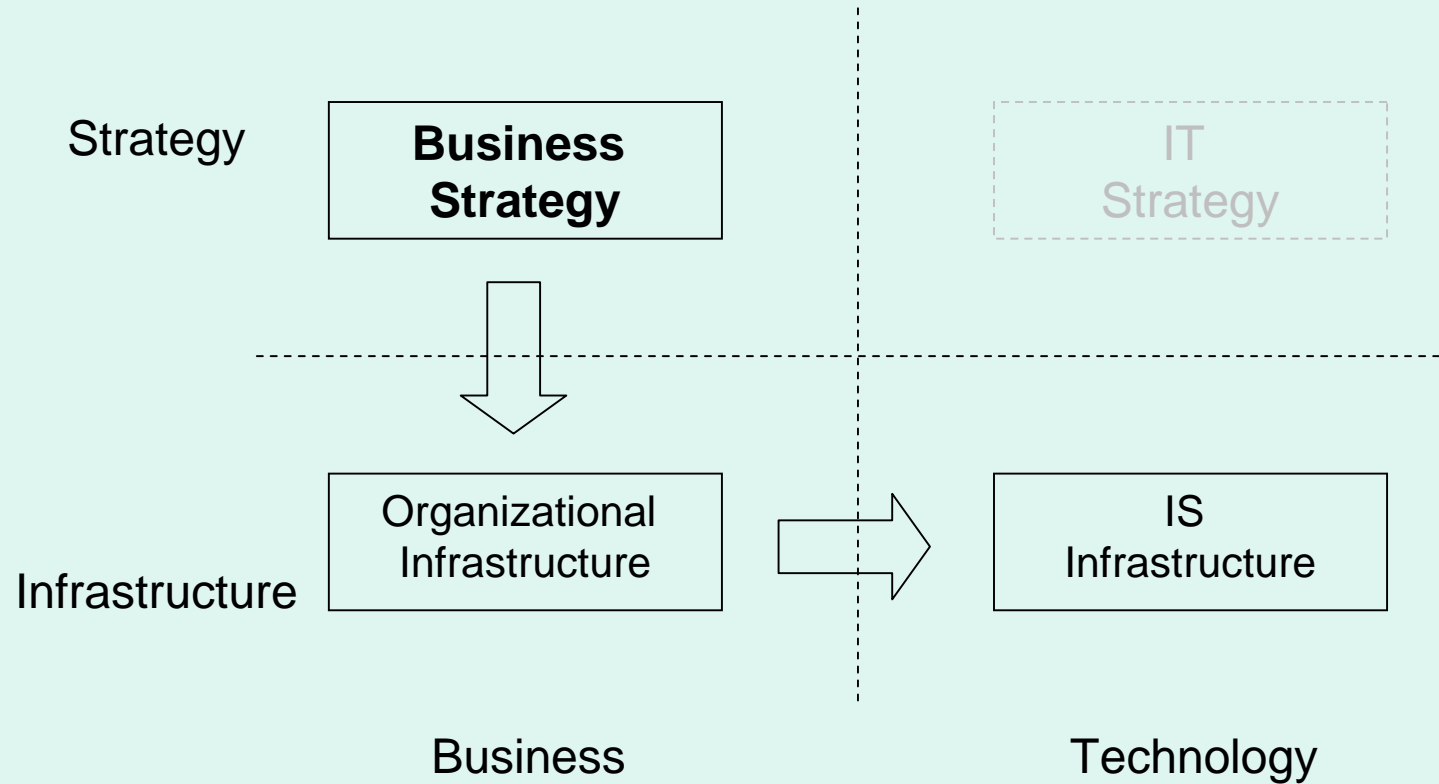
# Strategic Alignment Model



# Strategy Execution

- Business Strategy = Driver
  - The classic hierarchical view of strategy
  - The strategy is set at an executive level
  - The organization is adjusted to meet the new strategic goals
  - The IS are adjusted to support goals of the new organization

# Strategy Execution

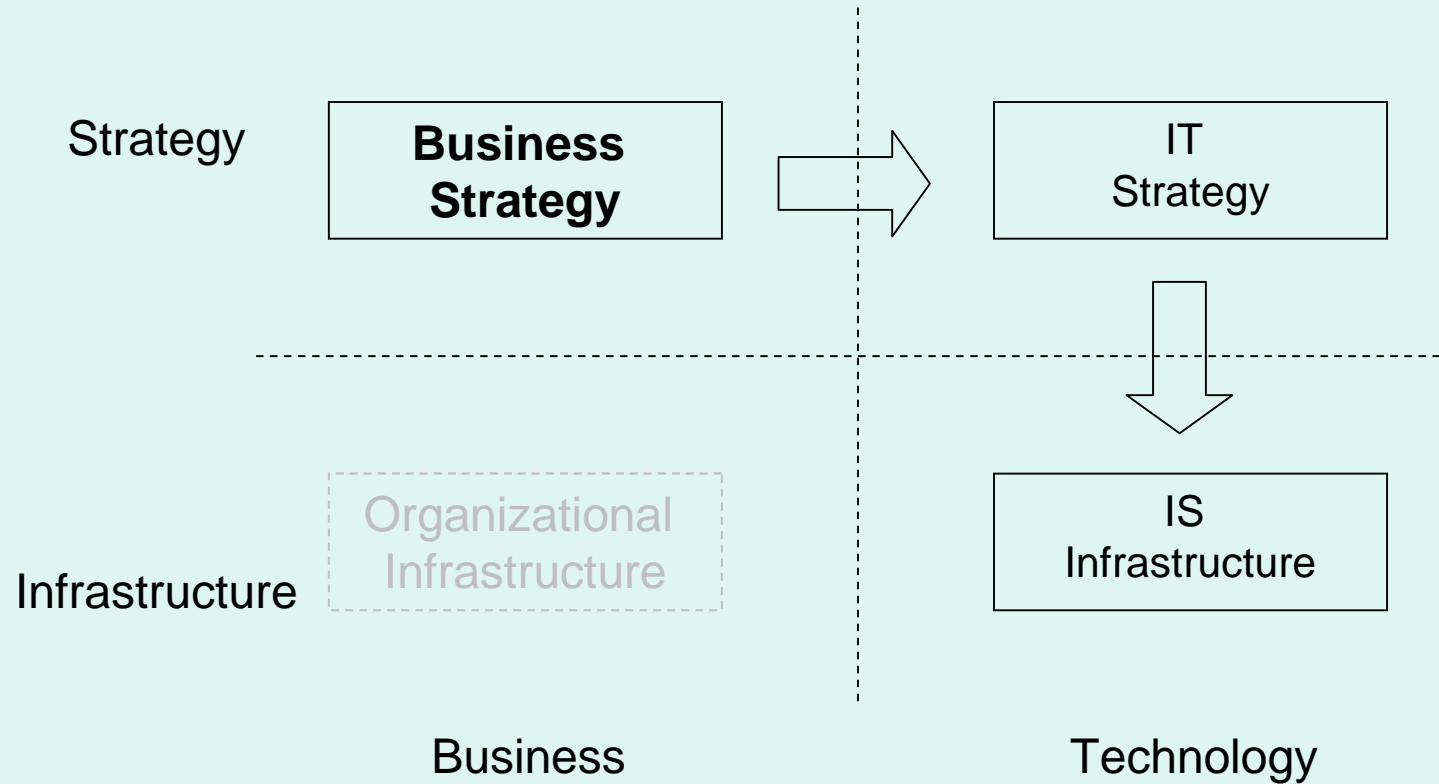


# Technology Transformation

- Business Strategy = Driver
  - The strategy is set at an executive level
  - New (Information) Technologies are used to achieve the strategic goals
  - The IS architecture is adjusted to support the new goals of organization



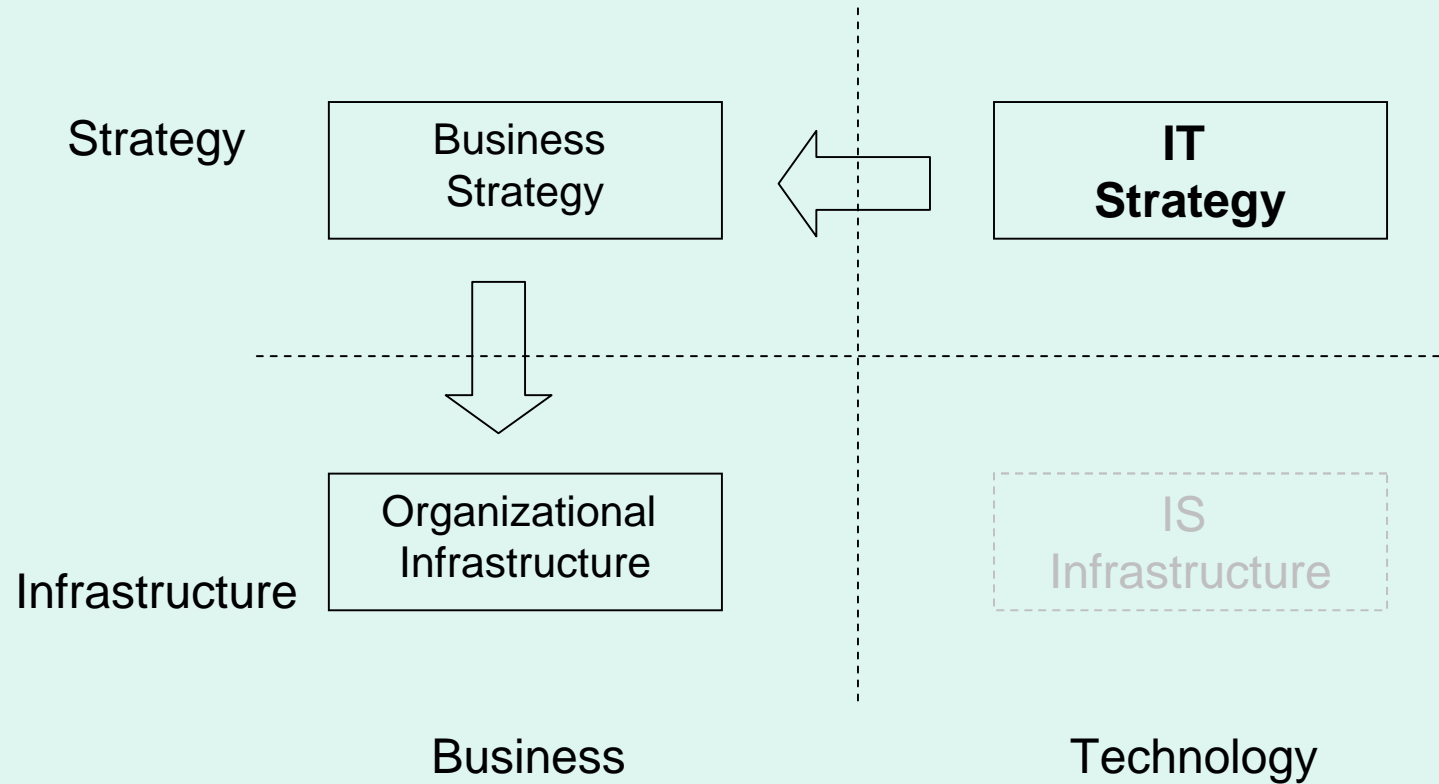
# Technology Transformation



# Competitive Potential

- Technology Strategy = Enabler
  - A new technology has the potential to redefine a businesses strategy
  - An existing business strategy is adjusted to take account of the new opportunity
  - The organization is adjusted to support the new business strategy

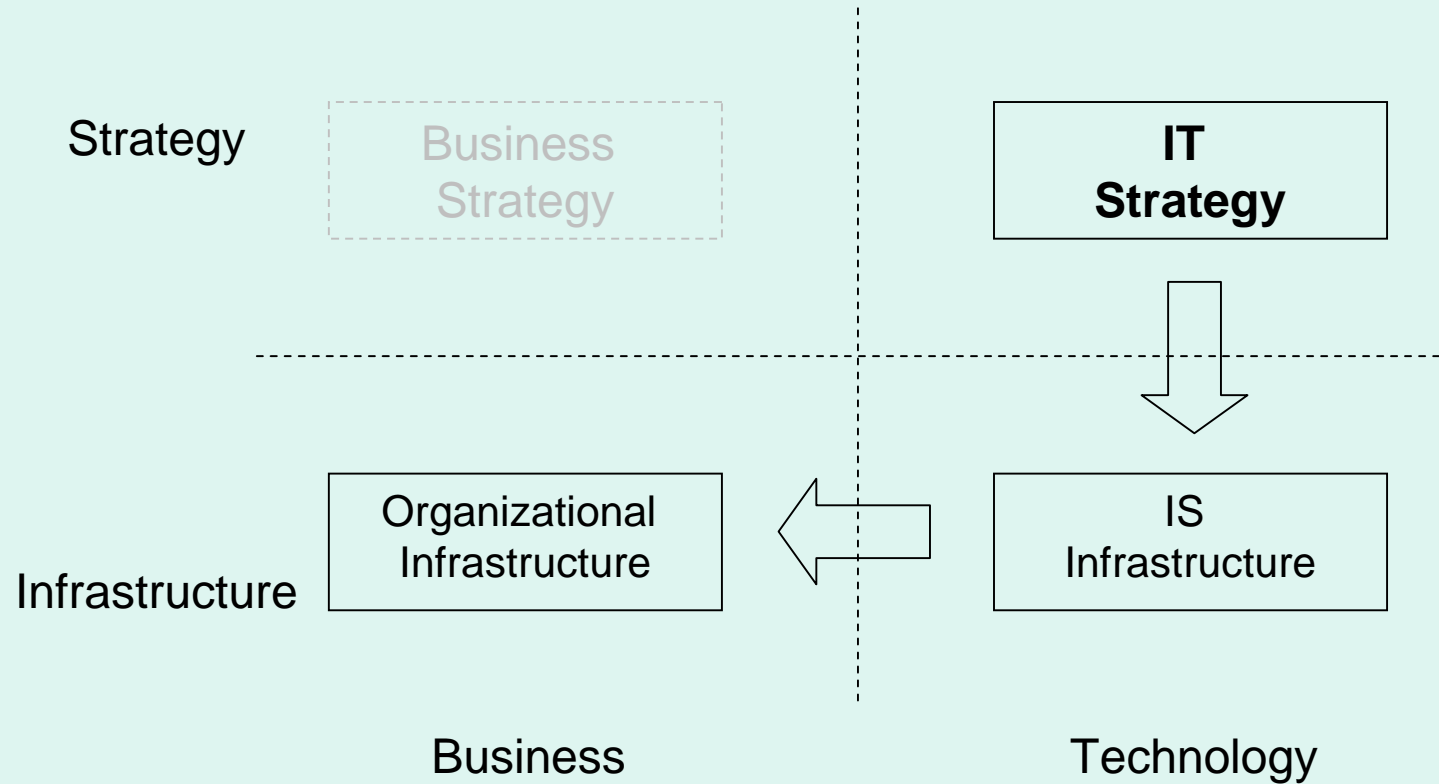
# Competitive Potential



# Service Level

- Technology Strategy = Enabler
  - Focus is on providing support for the organization's operations
  - Technology strategy and IS infrastructure need to be aligned to meet organizational needs
  - Executive level decisions are concerned with prioritization

# Service Level



# Business Models



# Models

- A model is a substitute for a real system that is easier to work with than the actual system.
- They are simplified and abstract constructs created to help us understand real world systems by only representing certain aspects of the actual system that are deemed to be important.

# Business Models

- A 'narrative with numbers' which originated in the dot-com era and was used to:
  - "... to glorify all manner of half-baked plans. A company did not need a strategy or a special competence, or even any customers, all it needed was a web-based business model that promised wild profits in some distant, ill defined future" (Magretta, 2002)



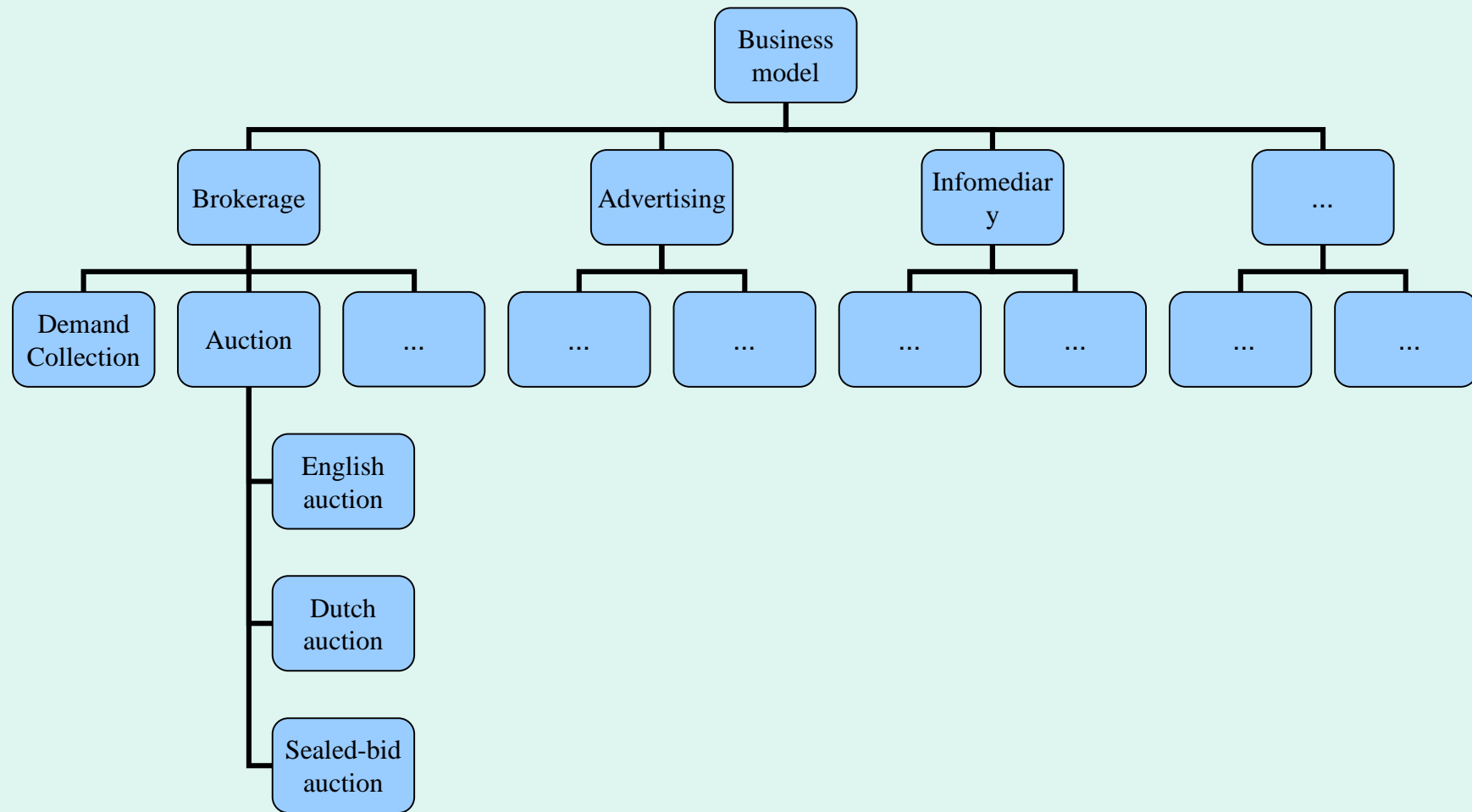
# Types of Business Model

- Just like Information systems, there have been many attempts to classify business models into different types of model that can be adapted for and used in different situations
- These are often expressed as a hierarchy where one type of model is broken down into subcategories

# Business Models I

Adapted from Michael Rappa

# Types of Business Model



# Types of Business model

- The following are a list of some of the most common business models, some of which are mainly applicable to "e-business" and others which are more generally applicable
  - Brokerage
  - Advertising
  - Infomediary
  - Merchant
  - Disintermediation
  - Affiliate
  - Community
  - Subscription

# Brokerage

- Brokers the middle-men facilitate transactions. They play an important role in business-to-business (B2B), business-to-consumer (B2C), or consumer-to-consumer (C2C) markets. A broker will usually charge a fee or commission for each transaction they enable.

# Brokerage - Marketplace Exchange

- Provide a range of services at a market level, from market assessment to negotiation and fulfilment, for a particular segment of an industry.
- The broker charges the seller a transaction fee based on the value of the sale and / or membership fees.

# Brokerage - Buy/Sell Fulfilment

- A customer specifies buy or sell orders for a product or service, including price, delivery, etc.
- The broker charges the buyer and/or seller a transaction fee.

# Brokerage - Demand Collection System

- The "name-your-price" model: a prospective buyer makes a final (binding) bid for a specified good or service and the broker arranges fulfilment for a fee.



# Brokerage - Auction Broker

- Conduct auctions for sellers (individuals or merchants).
- Auctions vary in terms of the offering and bidding rules.
  - English auction
  - Dutch auction
  - Sealed-bid auction
  - Combinatorial auction

# Brokerage - Transaction Broker

- Provide a third-party payment mechanism for buyers and sellers to settle a transaction.

# Brokerage - Distributor

- A broker connects a large number of manufacturers with buyers and facilitates transactions between trading partners.
  - Franchise: A company grants an independent operator the right to use its methods and trademarks or to distribute its products, in return for a fee or royalty payment

# Brokerage - Search Agent

- An agent (i.e. a software agent or "robot") used to search-out the price and availability for a good or service specified by the buyer, or to locate hard to find information.

# Advertising models

- The web advertising model provides (possibly free) content and services (e-mail, chat, forums) mixed with advertising messages.
  - The ads may be the major or sole source of revenue for the site.
  - The site may be a content creator or a distributor of content created elsewhere.

# Advertising - Portal

- A point of entry to the web, usually a search engine that includes diversified content or services. The high volume makes advertising profitable and permits further diversification of site services
  - Personalized: Allows customization of the interface and content.
  - Niche: Cultivates a well-defined user demographic.

# Advertising - Classifieds

- Lists items for sale or wanted for purchase.
- Listing fees are common, but there also may also be an initial membership fee.

# Advertising - Registered Users

- Content-based sites that are free to access but require users to register.
- Registration allows inter-session tracking of users' site usage patterns and thereby generates data of greater potential value in targeted advertising campaigns.



# Advertising - Query-based Paid Placement

- Sell favourable link positioning (i.e. sponsored links) or advertising keyed to particular search terms in a user query, such as a "pay-for-performance" model.

# Advertising - Contextual Advertising

- Software developers who bundle ads with their product.
- Example, browsers that deliver advertising links or pop-ups as the user surfs the web.

# Advertising - Content-Targeted Advertising

- Content-targeted advertising extends the precision of search advertising to the rest of the web.
  - Google identifies the meaning of a web page and then automatically delivers relevant ads when a user visits that page.
  - Content-targeted advertising provides an opportunity for advertisers to reach users based on specific pages.

# Advertising - Ultramercials

- Interactive online advertisements that require the user to wade through the message before reaching the intended content.
- Ultramercials can be used as a taster for what would normally be subscriber-only content.

# Infomediary model

- Data about consumers and their consumption habits is valuable for targeted marketing campaigns. Independently collected data about producers and their products are useful to consumers when considering a purchase. Infomediaries assist buyers and/or sellers in a given market.

# Infomediary - Advertising Networks

- Service that feeds banner ads to a network of sites, thereby enabling advertisers to deploy large marketing campaigns.
- By using cookies, the Ad Network operator collects data on web users that can be used to analyze marketing effectiveness.

# Infomediary - Audience Measurement Services

- Online audience market research agencies use the web as a way to contact their target audience directly, sometimes using the same techniques as advertisers.

# Infomediary - Incentive Marketing

- The customer loyalty programme model. Provides incentives to customers such as redeemable points or coupons for making purchases from associated retailers. Data collected about users is sold for targeted advertising.



# Merchant model

- Wholesalers and retailers of goods and services. Sales may be made based on list prices or through auction.
  - Virtual Merchant: An "e-tailer", a merchant that operates over the web.
  - Catalogue Merchant: Mail-order business with a web-based catalogue.
  - Click and Mortar: Traditional brick-and-mortar retail establishment with web storefront.

# Merchant model – The Long Tail

- Targeted Market vs Mass Market – The Long Tail refers to the ability to offer a much wider range of merchandise than is possible in a traditional stores
  - supply a wider demographic
  - attract new customers
  - can be used to leverage existing products

# The "Direct" Model- Disintermediation

- The disintermediation or "direct model" is the inverse of the broker model. It allows a company that produces a product or service to reach customers directly.
- The model can be based on greater efficiency, improved customer service or a better understanding of customer preferences.

# Disintermediation - Supply Chain

- Sales
  - Build to order: Create a customised product to a customer's specification.
  - Direct selling: Marketing and selling products direct to consumers, often in their homes or workplace.
- Purchase
  - The sale of a product in which the right of ownership is transferred to the buyer.

# Disintermediation - alternatives to ownership

- Lease
  - The buyer has the right to use the product under a "terms of use" agreement. The product is returned to the seller afterwards.
- License
  - The sale of a product only involves the transfer of usage rights to the buyer. Ownership rights remain with the manufacturer (e.g. software licensing).

# Affiliate Model

- Affiliates provide click-through for a merchant. It is a pay-for-performance model - if an affiliate does not generate sales, it represents no cost to the merchant. The affiliate model is inherently well suited to the web.

# Affiliate Models

- **Banner Exchange**
  - Trade banner placement among a network of affiliated sites.
- **Pay-per-click**
  - A site that pays affiliates for a user click-through.
- **Revenue Sharing**
  - Offers a percent-of-sale commission based on a user click-through which end in a purchase.

# Community Model

- The viability of the community model is based on commitment and user loyalty.
- Users make a high investment in both time and emotional terms.
- Rewards are largely intrinsic and revenue may be based on the sale of ancillary products and services or voluntary contributions.



# Community - Open Source Model

- The best known is the example of Linux, where software is developed voluntarily by a global community of interested programmers.
- The businesses that emerge around open source products often rely on revenue generated from related products or services.

# Community - Knowledge Networks

- Expert sites provide a source of information based on professional expertise or the experience of other users.
- Sites are often run like a forum where persons seeking information can pose questions and receive answers.
- These sites act as a shop window for expertise.

# Community - Social Networks

- Sites that provide individuals with the ability to connect to other individuals along a defined common interest (professional, hobby, romance).
- Social networking services can provide opportunities for contextual advertising and subscriptions for premium services.

# Community - Public Broadcasting

- User-supported model used by not-for-profit radio and television broadcasting extended to the web.
- A community of users supports the site through voluntary donations.

# Subscription Model

- Users are charged a periodic - daily, monthly or annual - fee to subscribe to a service. Sites often combine free with "premium" (i.e. subscriber or member-only) content.
- Subscription fees are incurred irrespective of actual usage rates. Subscription and advertising models are frequently combined.

# Subscription Model

- Content Services
  - Beyond newspapers and magazines, the Web has encouraged the use of the subscriber model for music and video, as well.
- Networking Services
  - Conduits for the distribution of user-submitted information, such as individuals searching for former schoolmates.

# Subscription - Trust Services

- An independent third party that engenders trust between unfamiliar parties entering into a transaction. Trust services typically come in the form of membership associations that abide by an explicit code of conduct, and in which members pay a subscription fee.

# Business Models II

Adapted from Osterwalder and  
Pigneur, 2006



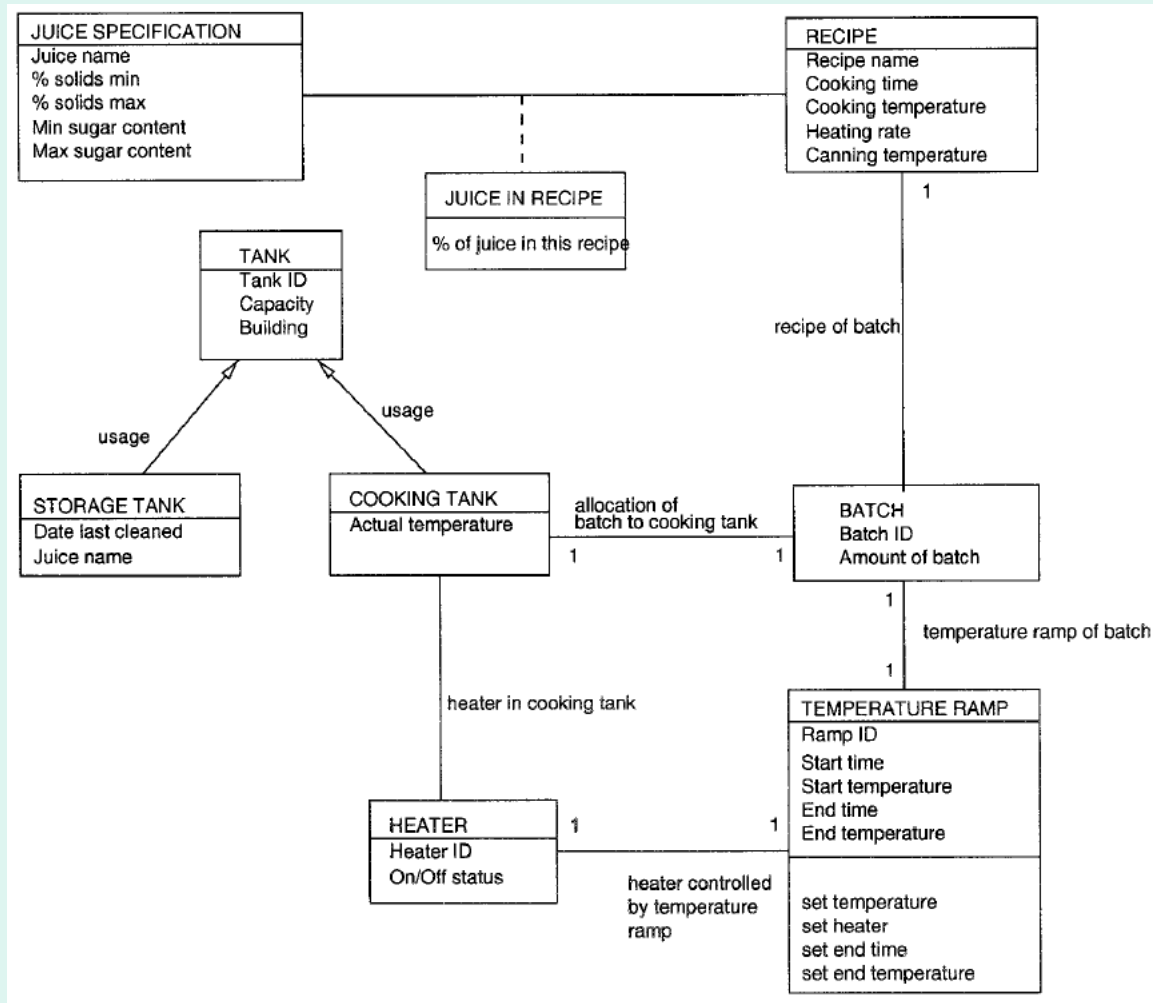
# Business Models

- Business models are a narrative: a way dealing with all of the important aspects of "The Big Picture" simultaneously
- They provide an effective medium for people from different backgrounds to plan and to communicate goals, ideas and objectives.
- They also capture the 'business logic' of a company in a way that makes it easier to translate into IS models

# IT Models

- Object-oriented languages are the most widely used programming languages
- Object-oriented methodologies model the world in terms of objects that are a self-contained entities that have:
  - An identity (name/class)
  - Attributes (data/variables)
  - Operations (functions/methods)

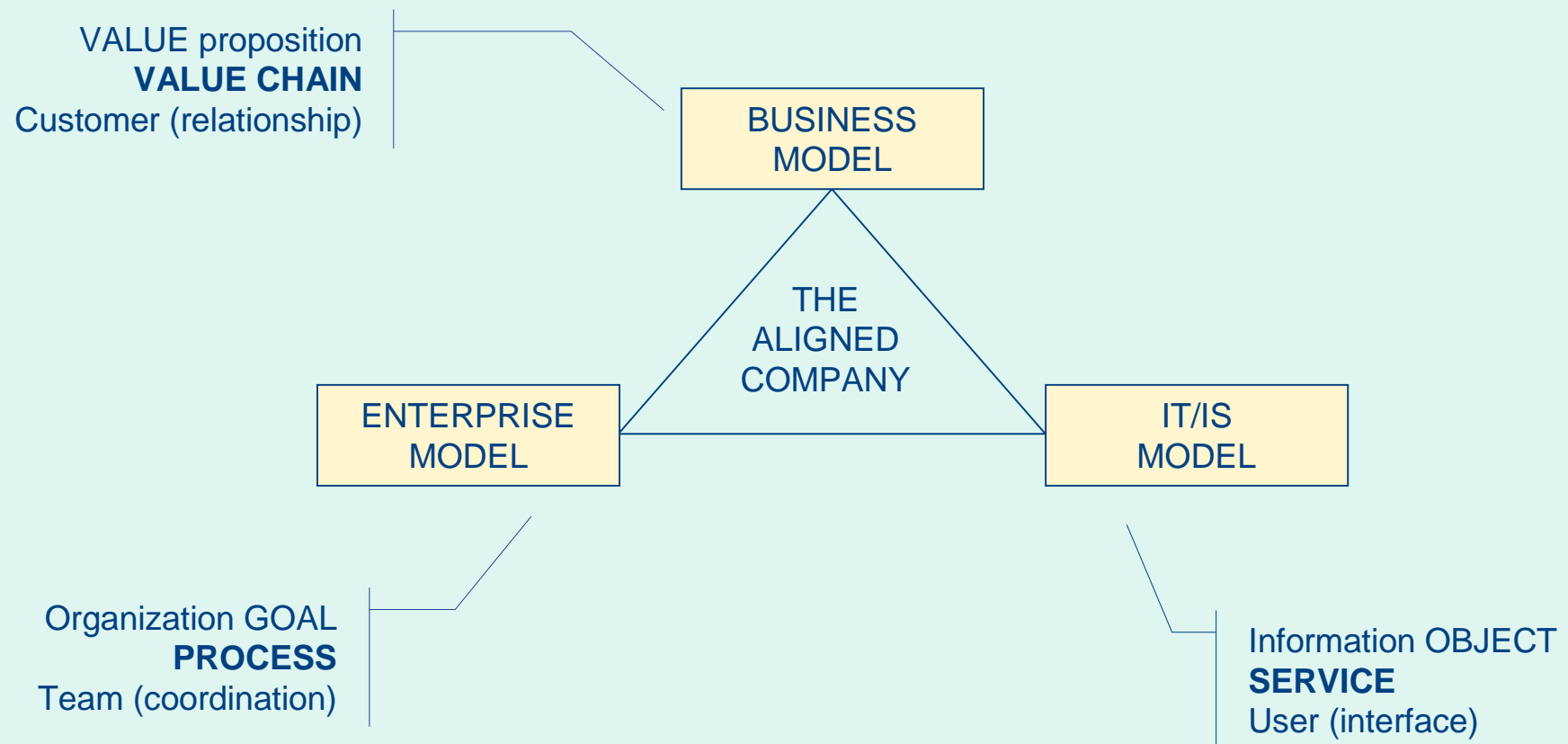
# An object oriented model



# Business Models and IT

- "A business model is a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm." (Osterwalder et al. 2005)

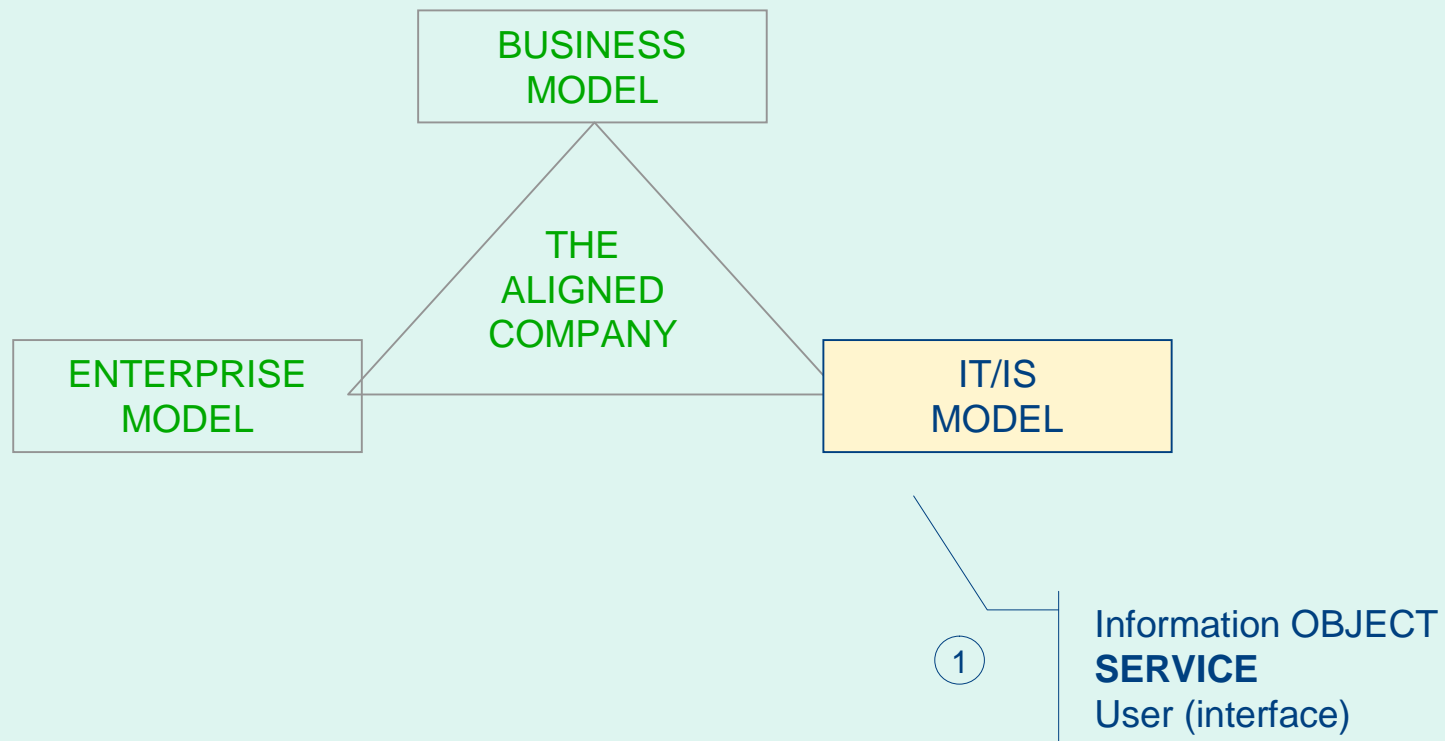
# The aligned company



# IS Model

## IS MODEL

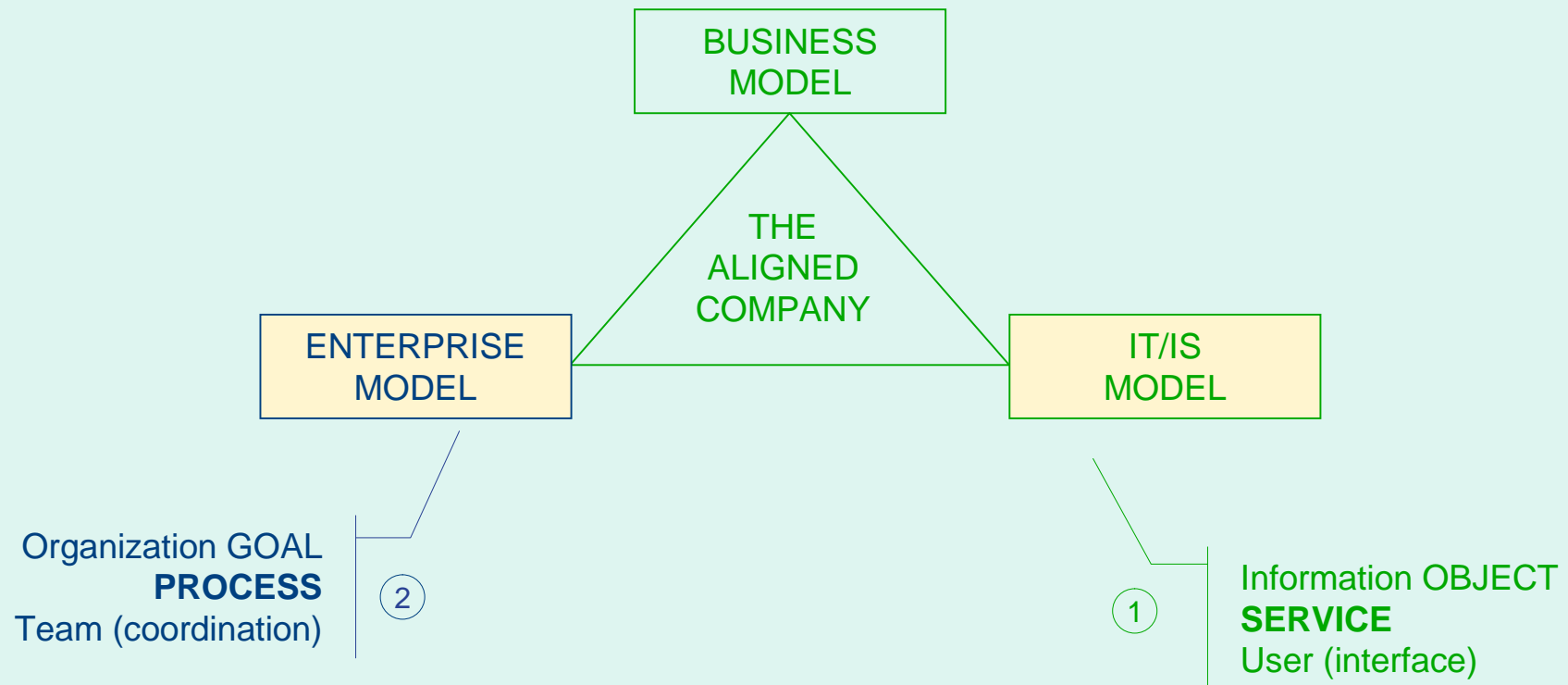
Viewpoint: SOFTWARE ENGINEERING



# Enterprise Model

## ENTERPRISE MODEL

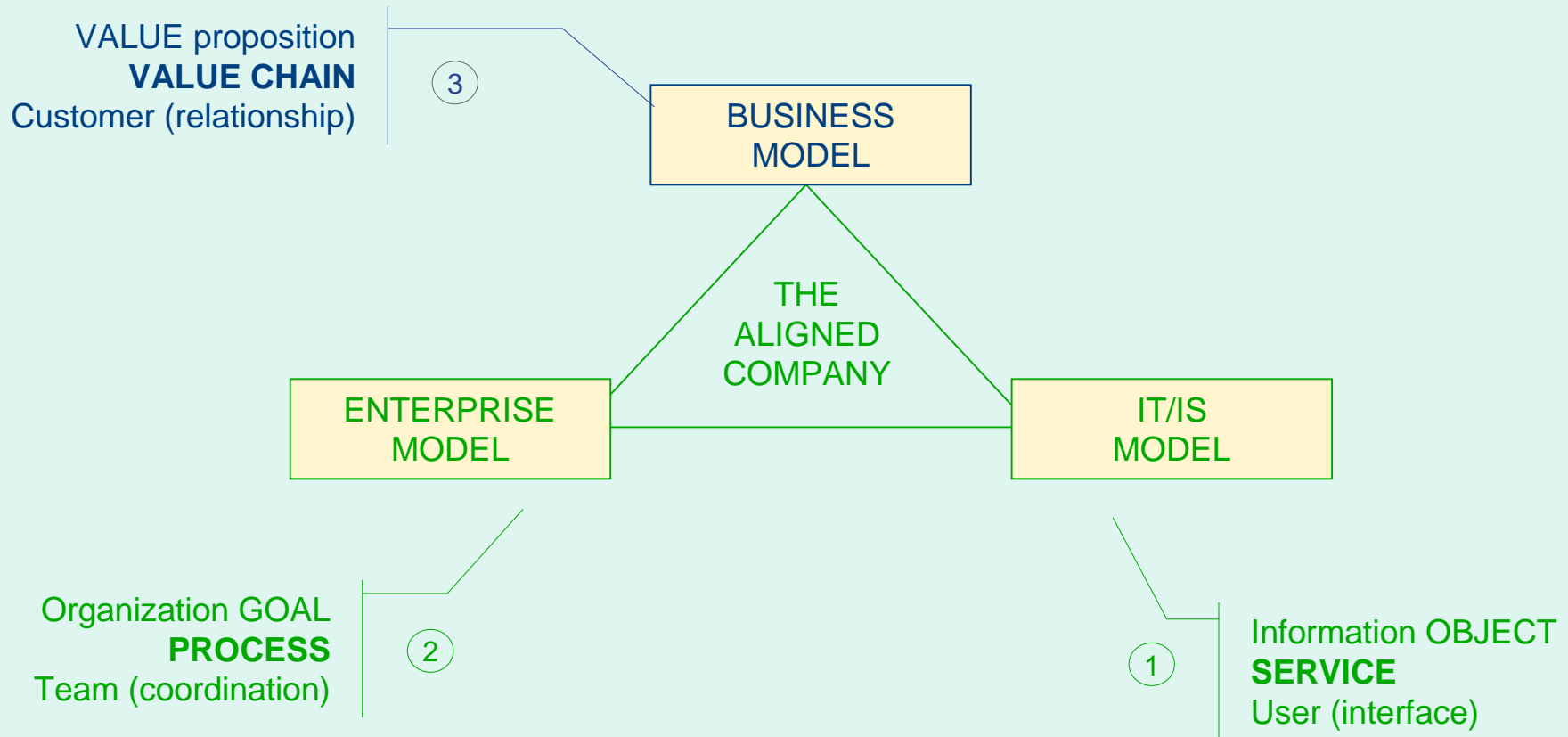
Viewpoint: BUSINESS PROCESS (RE-) ENGINEERING



# Business Model

## BUSINESS MODEL

Viewpoint: BUSINESS DEVELOPMENT





# Modelling the Business Model

- Each model can be broken down into more detailed sub-models ...

# Value proposition

What do we offer to our customers?

Who are our customers?  
How do we reach them?  
How do we get and keep them?

WHAT?

VALUE PROPOSITION

HOW?

Value configuration

Partnership

Core capability

WHO?

Customer segment

Distribution channel

Relationship

Revenue

Cost

HOW MUCH?

How do we operate and deliver?  
How do we collaborate?  
What are our key competencies?

What are our revenues? Our pricing?

What are our costs?

Chris Kimble

World Med MBA 2009 / 2010  
IS and Business Strategy

Session 3, slide 90

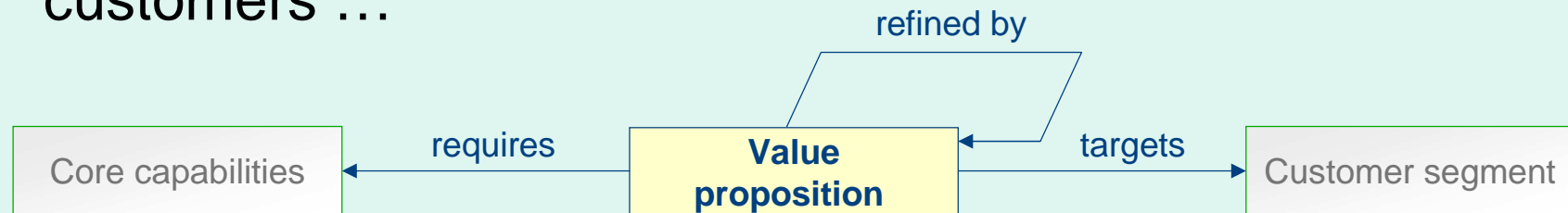
# Modelling the Business Model

- ... and each sub-model can be broken down again

# Value proposition

## DEFINITION

A VALUE PROPOSITION is an overall view of a firm's bundle of offerings, products and services, that together represent a benefit or a value for its customers ...



## SCHEMA

- Description
- Reasoning (use, risk, effort)
- Life cycle (creation, appropriation, use, renewal, transfer)
- Value level (me-too, innovation/imitation, innovation)
- Price level (free, economy, market, high-end)
- Category (barter, sale, market, buy)

# Business Models (Summary)

- An abstract conceptual model?
  - For strategic analysis and planning?
  - For (information) systems design?
  - For communication across boundaries?
- A "Narrative with numbers"?
- A set of tried and tested "recipes"?
- A "mix and match" approach?

# IS and Organizational Change



# Some Case Studies

- 8 case studies with companies using integrated (cross functional) IS
- 65 Interviews with senior & middle managers over 2 year period
  - » C. KIMBLE. & K. McLOUGHLIN. Computer Based Information Systems and Managers Work. New Technology, Work and Employment, 10(1), March, 1995. p 56 - 67.

# IS Impact on Culture

## Assumption

- IS make new information available and/or distribute existing information more widely.

## Effect

- New information makes the socially constructed nature of existing practices, and their consequences, apparent.



# IS Impact on Culture

- **MRP II**

- MRP II (Manufacturing Resources Planning) is a suite of programs that integrate all aspects of the planning and control of the personnel, materials and machines required to manufacture a range of products.

- **The strategic justification**

- "There was a shortfall in capacity ... we could build a new plant, which could have cost us about £200 million, we could not take on new business, or, we could better optimise the utilisation of our existing capacity".  
(Production Director, Company A)

# IS Impact on Culture - Company A

- Old culture = Production are heroes; the Warehouse is backward and inefficient.
  - "... something of a dumping ground. The less able, the less healthy, the older people ... tended to migrate to the warehouse". (Warehouse Manager, Company A.)
- New culture = Production are Cowboys; the warehouse are forward looking and efficient.
  - "A law unto themselves ... cowboys ... they were out there making the chemicals, everybody else was a hanger-on". (Director of Logistics, Company A.)

# IS impact on culture

- An example of technological determinism?
  - "... if you going to put the lot on a machine you have to have formal procedures about who does what ... the first thing you have to instil into people is the need for procedures ... there are certain things that must be done and they must be done in that way and they must be done on a regular basis". (Purchasing Director, Company A.)
  - "... all MRP II has really done is to ... highlight the shortcomings of the company which have always been there, it's just now we can actually see them". (Master Scheduler, Company A.)

# IS Impact on Culture - Company G

- Company G had PoS terminals but only used them to look up the price of goods at the till.
- As part of a modernisation of the company's information systems PoS terminals were linked into a stock control and a management information system so that overheads could be better controlled.

# IS Impact on Culture

- Old culture.
  - The buyers are the company heroes.
  - The store managers are backward and inefficient.
- New culture.
  - Buyers responsible for a "trail of costs".
  - Store managers have a more central role.

# Culture's Impact on IS

## Assumption.

- "If an organisations culture and style of management demand the perpetuation of a particular style of working that is what tends to happen - regardless of the technology"

## Effects

- Organisational culture means original goals are not met.

# Culture's Impact on IS - Company C

- Differential use of IS
  - Senior Managers use e-mail but little else.
  - Middle managers use systems to gather information and to supervise subordinates.
- Why?
  - Unsuitable interfaces?
  - Unsuitable information?
  - Not part of senior manager's role?
  - Senior Managers = Older Managers?

# Culture's Impact on IS - Company C

- The objective was to 'de-layer' the organization but the result was more calls for information from middle managers.
  - "I rarely go through the terminal because the information I get comes in on a print out ... I have a filter whereby one of the managers knows the information requirements I have ..." (Senior Billing Manager, Company C.)



# Culture's Impact on IS - Company E

- Using an IS is not seen as part of a senior manager's role
  - Commanding human processing power is a mark of status
  - Using a keyboard is demeaning
    - » "... the manager ends up as a typist. I don't see any point in paying managers high salaries to sit at a keyboard. If I want information I can simply pick up the telephone or go direct to the person concerned". (Senior Personnel Manager, Company E.)

# Culture's impact on systems

- Older managers are ill at ease with new technology and are less flexible
- The problems of potential loss of experience, expertise and knowledge
  - » "We've had a policy of non-recruitments and early retirements ... I have this recurring dream that ... come the year 2015 on one Friday afternoon everybody in the company's going to retire and on Monday morning they'll ... open the gates and nobody will come through because nobody's employed any more". (Manager, Company A)

# Interaction shaping outcomes

## Assumption

- Technology is a social object whose meaning is defined by the context of its use. This meaning may change over time although its physical form remains fixed.

## Effect

- The way in which an IS is used will change over time even if the IS does not change.

# Interaction shaping outcomes

- Information on systems become a "parallel history". Who does what and how well they have performed is translated into 'objective data' along with hundreds of other variables.
  - "The techniques ... were typically developed after the fact, by coincidence and accident, as managers discovered ways to colonise an already functioning portion of the technological infrastructure" (Zuboff, The Age of the Smart Machine)

# Interaction shaping outcomes.

## The Bow wave effect (Company A)

- A previous culture reasserting itself?

## Problems with fine tuning (Company C)

- The expectation that things would return to normal after the new system was in place

# Negotiation shaping outcomes

Assumption.

- Technology is a political resource and informal power politics is at the forefront during periods of change

Effect.

- The way in which an IS is used will change over time as a result of changes in the balance of power in an organisation

# Negotiation shaping outcomes – Company B

- **Manager A:**
  - Uses information from system to monitor staff
  - In before staff to check on yesterday's figures
  - Confront staff if figures are not up to scratch
- **Manager B:**
  - Information from system relieves pressure on staff
  - Sit beside staff
  - Works through problems

# Additional reading

- Four Articles
  - From Harvard Business Review
  - Relate to key concepts in business models
  - Relevant, practical and easy to read
  - Available on-line
- See web page for detail of how to get access and a summary of the articles



# Mini-assessment

- A short essay based on published articles
  - In English
  - Appropriately referenced
- To consolidate the course content
- Worth 25% of the total marks
- Feedback will be given
  - To indicate progress / strengths / weaknesses