

today's topic

- information systems and economic performance
 - how can information systems make an organisation more competitive?
 - what does it mean for an organisation to be competitive, anyway?
 - where do information and information systems fit into the processes that make an organisation effective?
- so we'll look at:
 - economics: competition and markets
 - information systems and strategies

some basic economics

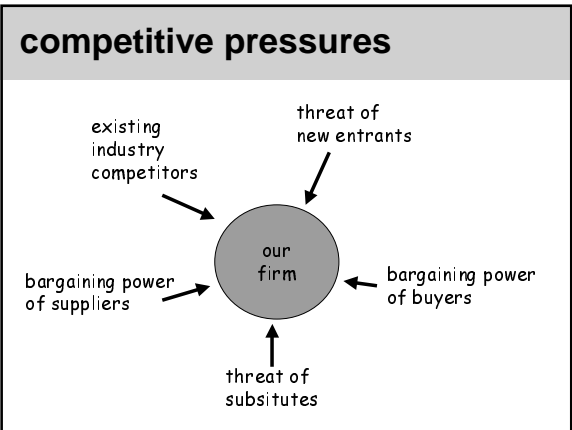
- economics is about the allocation of scarce resources amongst possible uses
- individual behaviour
 - basic model of allocation
 - two key features
 - opportunism
 - rationality

some basic economics

- utility
 - the benefit an individual receives
- marginal utility
 - the amount of utility gained by adding one unit
 - marginal utility often decreases with numbers
- similarly:
 - cost, and marginal cost

supply, demand, markets

- availability from all suppliers is *supply*
- amount acquired by all consumers is *demand*
- supply and demand are balanced through
 - price mechanisms
 - in a market where goods are exchanged
- price-elasticity
 - demand for an elastic good falls as price rises
 - and rises as price falls
 - demand for an inelastic good remains the same



competition

- a perfect market
 - many buyers and sellers, all small w.r.t the market
 - homogeneous product
 - no barriers to entry and exit
 - perfect information amongst customers
 - information about products and prices
 - no switching costs
- in perfect markets...
 - prices driven down to marginal cost of production
 - suppliers forced to be very efficient
 - customers win through low prices

back to the real world

- the most important thing about perfect markets?

back to the real world

- the most important thing about perfect markets?
 - they don't exist (or, at best rarely and fleetingly)
 - perfect information amongst customers?
 - hard to achieve, and hard to exercise
 - no barriers to entry and exit?
 - inertia; advertising; brand; production facilities; skill set
 - no large players?
 - dominant companies and conglomerates
 - » Microsoft, Starbucks
 - no switching costs?
 - economic ones?
 - psychological?

information systems

- information systems and competition
 - information is a resource that can be leveraged
 - information systems incorporate information into organisational processes
 - the goal is to improve performance in competition
 - knowing more about customers...
 - improving efficiency of internal processes...
 - giving a competitive advantage
- customer-focused view
 - rational agent with discretion

competition

- competitive strategies
 - *cost leadership* strategy
 - Kia, Target
 - *product differentiation* strategy
 - Apple, Bang & Olufsen
 - *focus* strategy
 - first edition books
- what are the risks of each?
 - one is probably not enough...

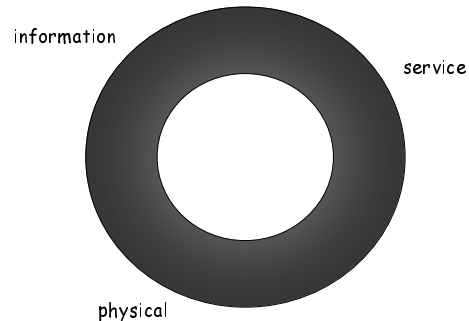
competitive strategies

- create barriers to entry
- increase customer's switching costs
- change competition
 - new services and products
- alliances
- Bakos and Treacy
 - gain bargaining power
 - achieve comparative efficiency

competitive advantage

- Bakos and Treacy's model
 - gaining bargaining power
 - search-related costs
 - unique product features
 - switching costs
 - increasing comparative efficiency
 - internal efficiency
 - interorganisational efficiency

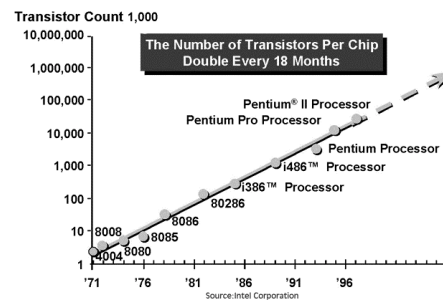
product, in three parts



product, in three parts

- one strategy for increasing value
 - combine elements from the model
 - add service or information to a physical product
 - examples...
 - add physical or service component to information
 - examples...
 - add information or physical component to service
 - examples...

information-based products



integrating all three

- example: Otis Elevator
 - service and maintenance for elevators
 - centralised dispatch
 - a fewer, better trained dispatchers
 - full access to the service history
 - information technology incorporated
 - monitoring malfunctions
 - wireless devices dispatching service reps
- a few things Alter doesn't mention
 - elevator revenue is increasingly from service
 - service competition is cut-throat
 - uptime is everything to the customer

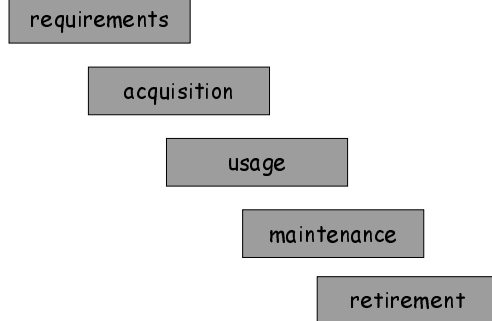
customisation

- information integration supports customisation
 - easy access to a historical record
 - tightly integrate sales with manufacturing
- ecommerce can support massive customisation
 - everybody sees a different home page on Amazon.com
 - marginal cost of a dynamic web page approaches zero!
- when customisation goes wrong...
 - individual pricing?
 - "price transparency"

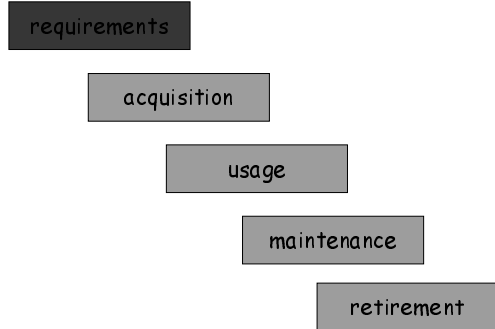
product and value

- cost
 - not just price; also time, effort, etc.
- quality
 - function, aesthetics, correctness, completeness, etc.
- responsiveness
 - well matched to timeframe of needs
- reliability
 - dependability; correctness of information
- conformance
 - ensuring that it'll be usable

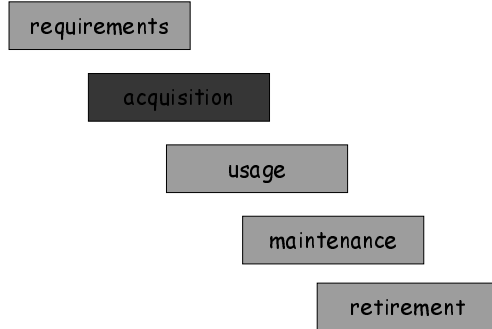
customer lifecycle



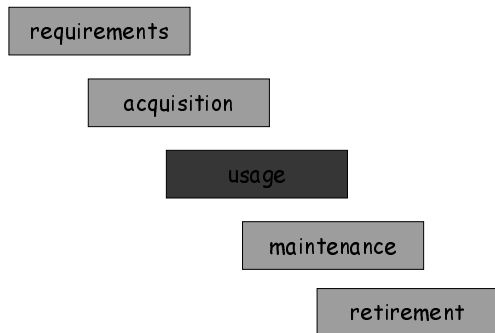
customer lifecycle



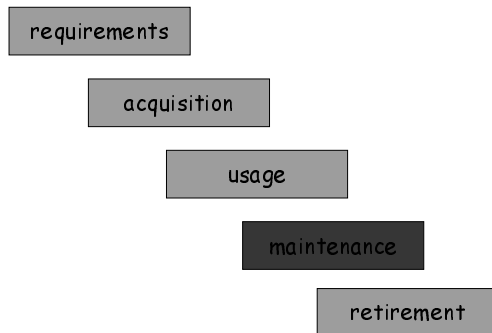
customer lifecycle



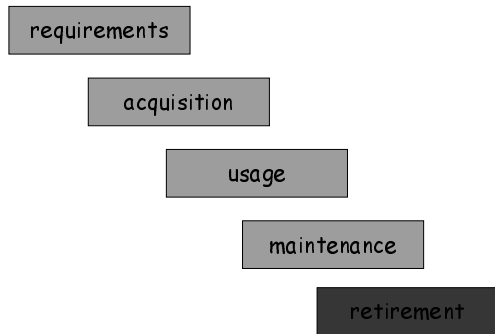
customer lifecycle



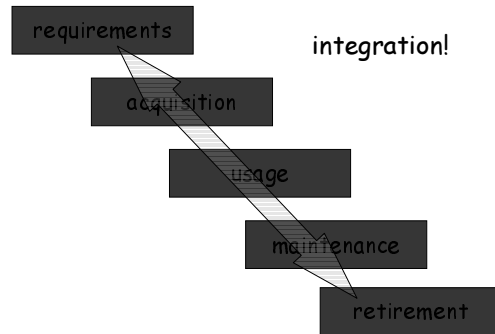
customer lifecycle



customer lifecycle



customer lifecycle



integrating information

- how does Amazon.com compete with traditional booksellers?
- how do the booksellers fight back?
- how does Amazon.com compete with other "e-tailors"?

e-commerce

- e-commerce is one means to integration
 - the full product cycle
 - organisations control their own channel
- e-commerce is an information strategy
 - much easier way to collect information!
 - and the information is more reliable, too
- e-commerce risks
 - customer reluctance
 - financial transactions are still external to the system
 - low cost of entry
 - easier to masquerade as Amazon.com than Barnes&Noble

summary

- information systems in support of competition
 - improving organisational efficiency
 - improving bargaining power
- product elements
 - information, physical, service
- customer lifecycle
 - requirements, acquisition, use, maintenance, retirement
 - information systems also critical to integrating them

what's coming up

- mid-term on Wednesday...