Information Systems

... In Business

Computers in Business

- where are they used?
- how are they used?

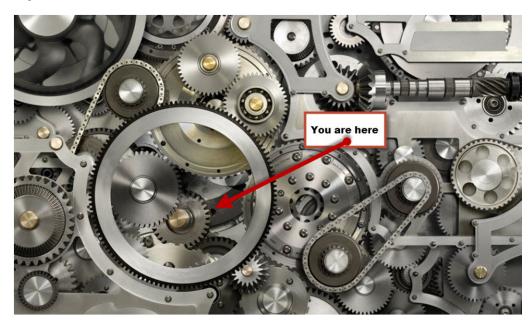
Common Sense

Common Sense

- a gross misnomer ...
- it is not really that common.
- and getting less and less as time goes on.

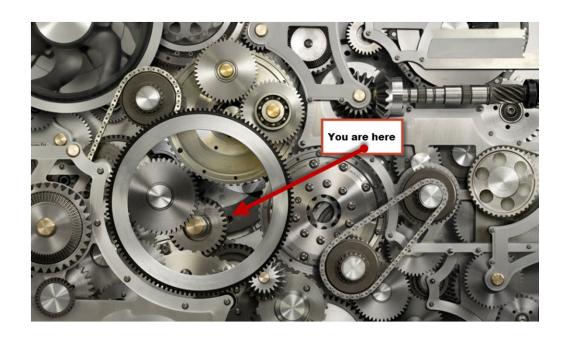
Common Sense

- one day, you will leave here and will get a job.
- what will the 'purpose' of your job be? i.e. what will you do?



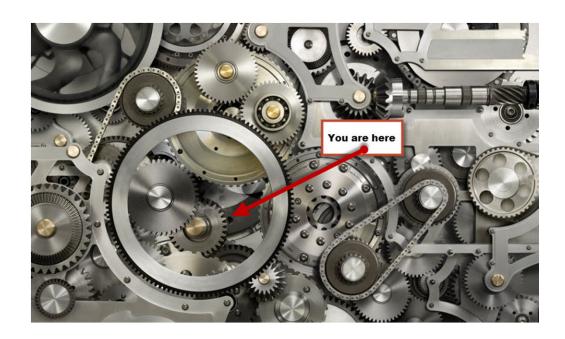
Common Sense

- You need to work properly in order for the entire machine to work properly



Business (Goal)

- In order to so this, you must understand:
 - business
 - what part you are in the 'big picture'



Business (Goal)

- The goal of business is simply to survive.
- Ideally, the goal is to succeed.

Both are based on a single concept:

MARGIN

Where does margin come from?

Business (Goal)

\$\$ COSTS \$\$

At the end of the fiscal year:

- what is the amount (\$) of total costs to operate your business ???

What constituted these cost ?? What are they exactly ??

How much of your business do you really understand ?? How much control (oversight) are you capable of ???

Business (Goal)

\$\$ COSTS \$\$

At the end of the fiscal year:

- what is the amount (\$) of total costs to operate your business ???

\$\$ REVENUE \$\$

At the end of the fiscal year:

- what is the amount (\$) of total revenue generated by your business ???

What constituted these revenues ??

What are they exactly ??



If revenue is greater than costs:

- positive margin (healthy fiscal year)
- success



Business (Goal)



If costs are greater than revenue:

- margin
- negative margin (unhealthy fiscal year)
- failure



Business (Goal) – common sense

\$\$ COSTS \$\$

Manage costs:

- (not necessarily reduce – increase cost good if higher return)

\$\$ REVENUE \$\$

Manage revenue:

- (not necessarily increase – maintain steady revenue if market saturated ...)

Business (Goal)

Manage costs:

- EFFICIENT

Efficiency describes how much output you get from each unit of input.

To measure efficiency, you must be able to measure input and output.

Manage revenue:

- EFFECTIVE

Effectiveness describes how well you achieve your objective.

To measure effectiveness, you must know what that objective is.

Business (Goal)

Manage costs:

- EFFICIENT

Efficiency DO THINGS RIGHT!

Manage revenue:

- EFFECTIVE

Effectiveness DO THE RIGHT THINGS!

Business (Goal)

Manage costs:

- EFFICIENT

Business Process

- Running the business
- Customer Relation (CRM)
- Supply Chain (SCM)
- Enterprise Wide Solutions

Manage revenue:

- EFFECTIVE

Competitive Strategy

- what to sell
- who to sell to
- how to market (advertise)
- how to price product / service

We will investigate the role of computers in these areas.

Business (Goal)

Manage costs:

- EFFICIENT

Business Process

- Running the business
- Customer Relation (CRM)
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- Enterprise Wide Solutions

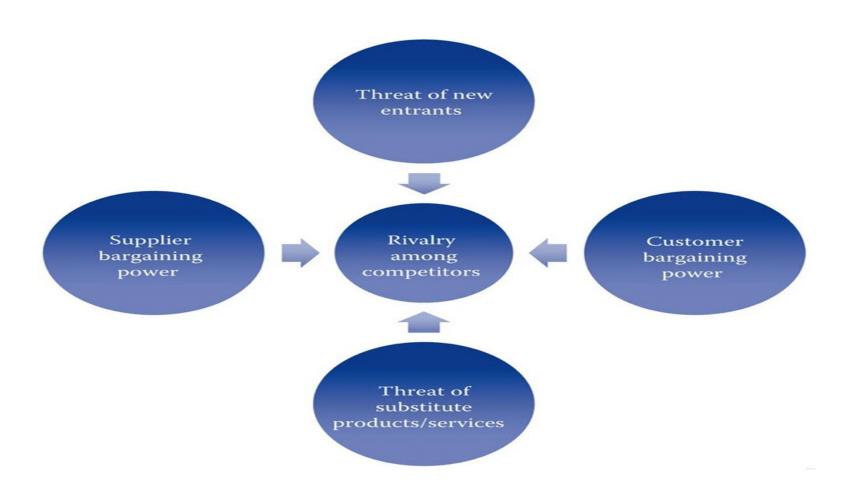
Manage revenue:

- EFFECTIVE

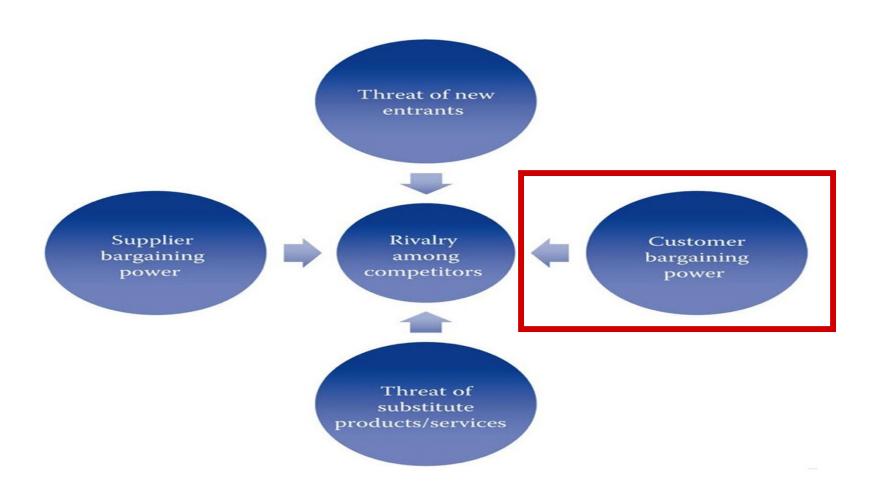
Competitive Strategy

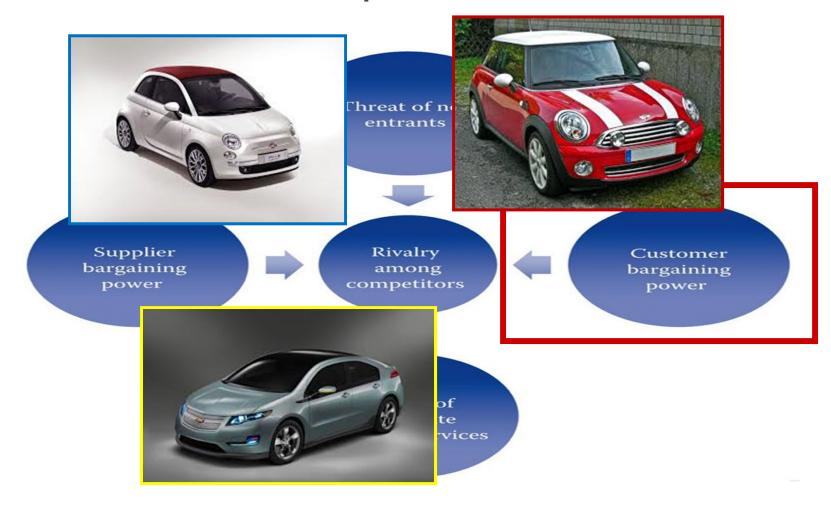
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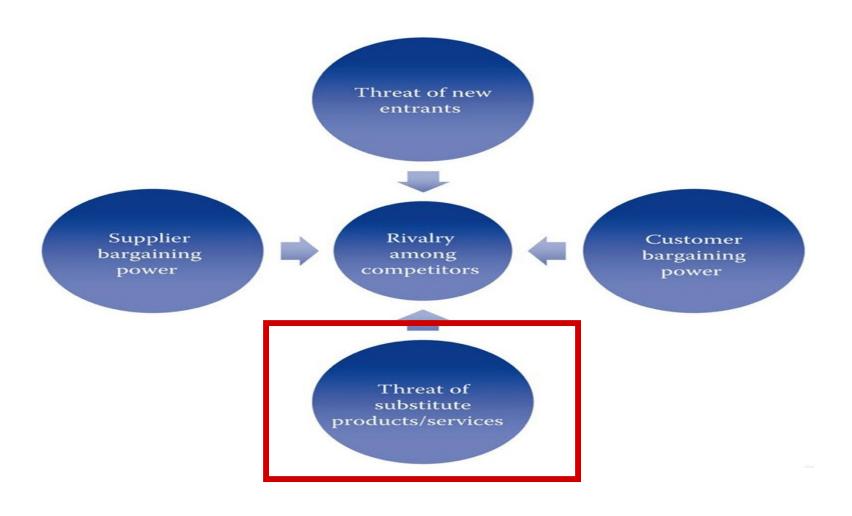
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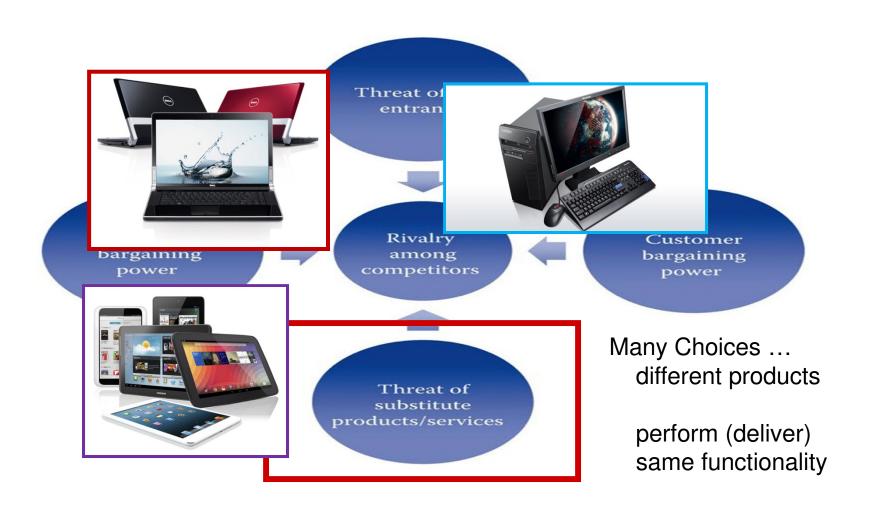


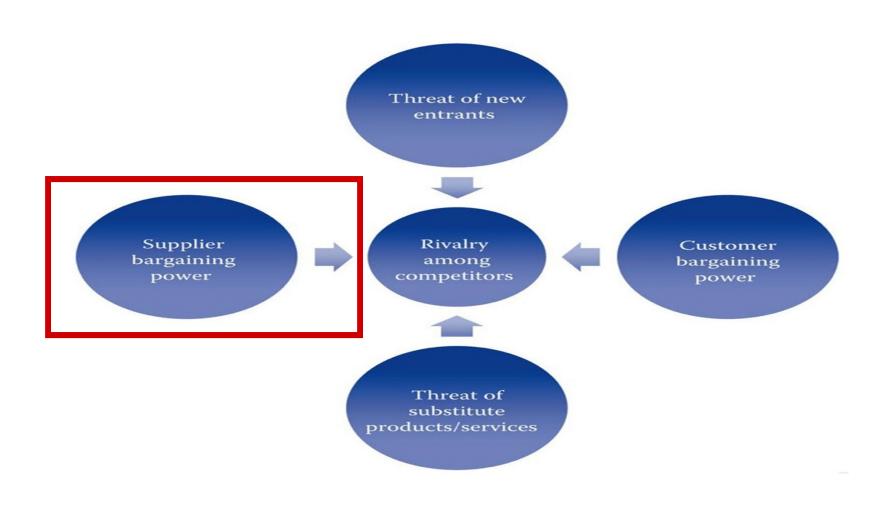


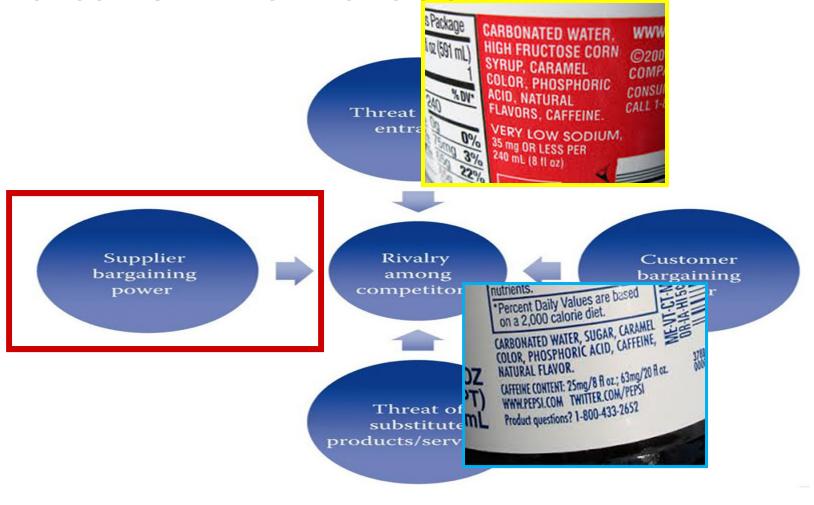




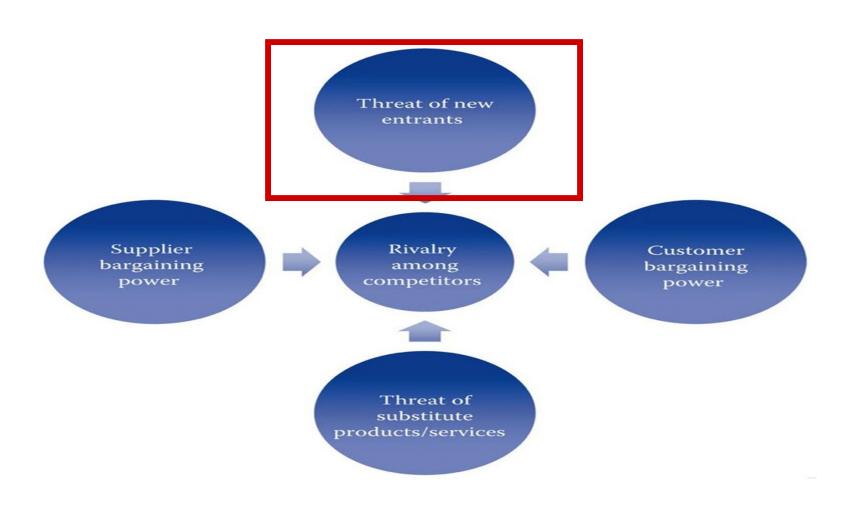






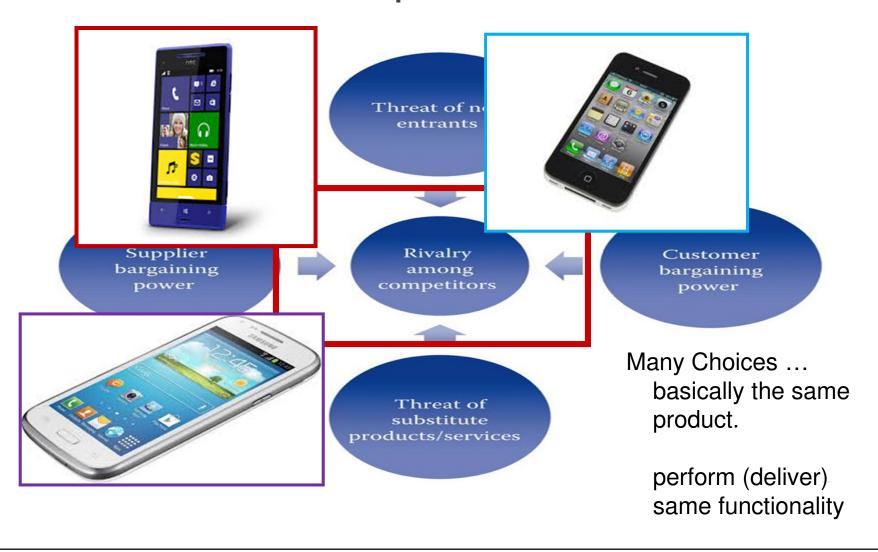


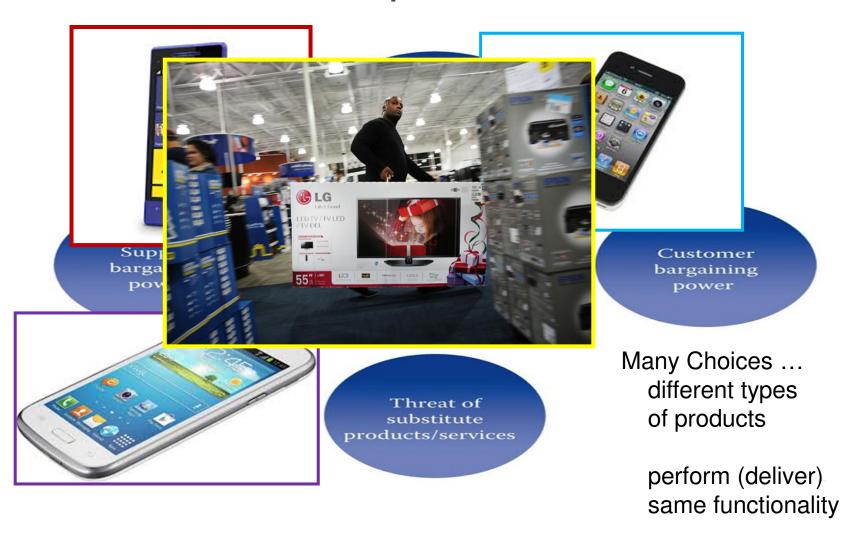












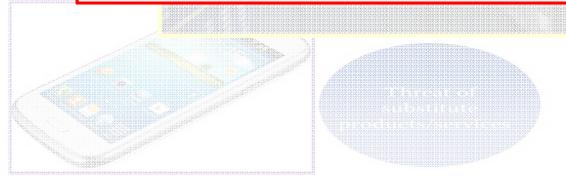
Impact of the Internet and the Web on Rivalry among Existing Competitors

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The web creates new ways for companies to compete.

Customers may choose a supplier for an online capability such as customer support via the web.

Companies must watch competitors to avoid being left behind.



Many Choices ... different types of products

perform (deliver) same functionality

Business (Goal)

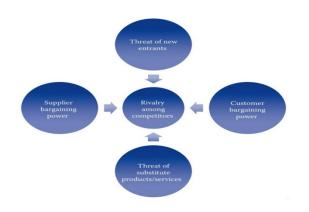
Manage revenue:

- EFFECTIVE

Competitive Strategy

- the approach it takes toward competing in its industry, also influences its value chain.
- A company's competitive strategy determines how it will try to use five competitive forces and how it will respond when other firms try to leverage them.
- The way a company's value chain functions and the way it deals with competitive forces combine to determine its success.

Porter's Five Forces



Manage revenue:

- EFFECTIVE

Competitive Strategy

- based on your understanding and recognition of the five forces

Intensity of each of these

- Determines characteristics of the industry
- Profitability
- Sustainability of the profits

Competitive Strategy

- Organizations
 - Examine the five forces
 - Generate a Response
 - Create a Competitive Strategy

Competitive Strategy

- Porter's four competitive strategies:
 - Cost leadership
 - across industry
 - focused on particular industry segment
 - Differentiation
 - across industry
 - focused on particular industry segment

Cost

Differentiation

Industry-wide

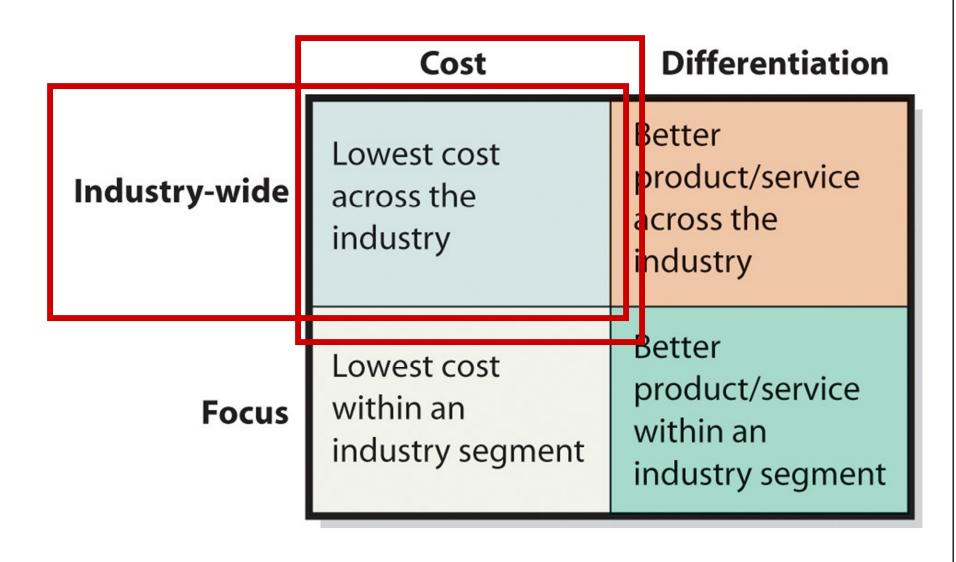
Lowest cost across the industry

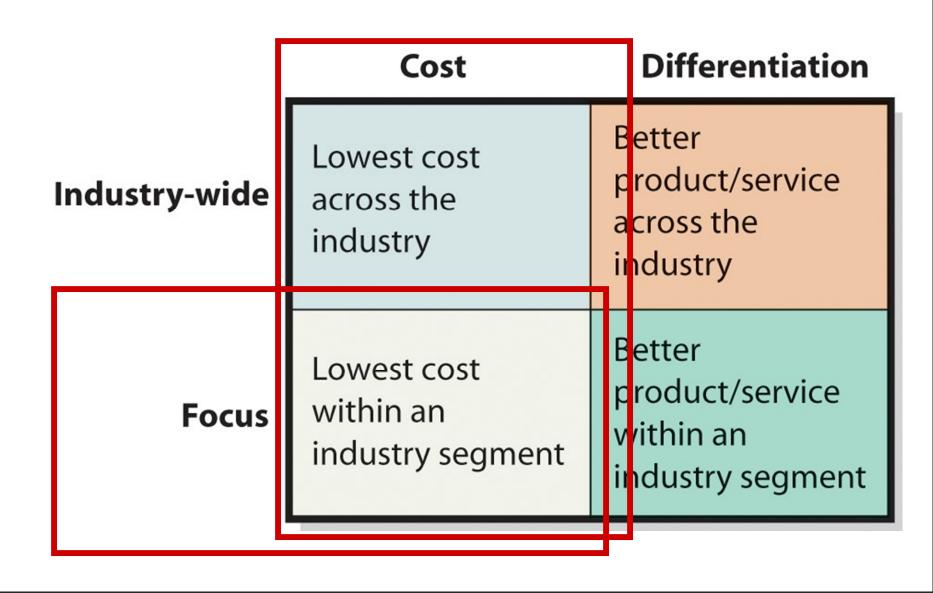
Better product/service across the industry

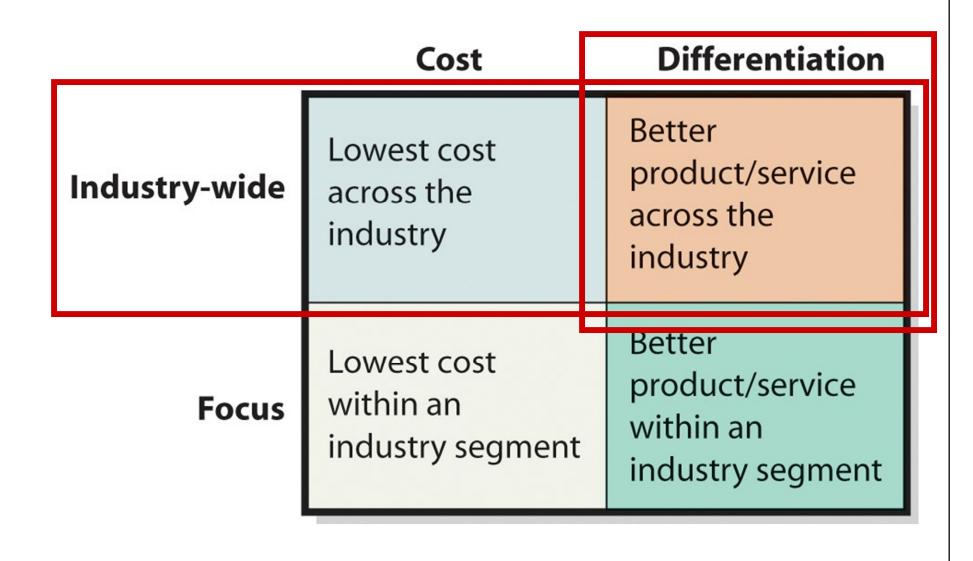
Focus

Lowest cost within an industry segment

Better product/service within an industry segment







Differentiation Cost Better Lowest cost product/service **Industry-wide** across the across the industry industry Better Lowest cost product/service within an **Focus** within an industry segment industry segment

Competitive Strategy

- Strategy: Cost Leader
 - Develop business activities as economical as possible
- Strategy: Differentiation
 - Provide a net benefit or margin
 - Adding benefits not available from competitors at a premium price

Competitive Strategy

- Goals, objectives, culture, and activities must be consistent with organizational strategy
- IS must facilitate the organization's competitive strategy
- Once strategy formulated
 - Organize & structure organization
 - Implement strategy

Principles of Competitive Advantage

Product Implementations

- 1. Create a new product or service
- 2. Enhance products or services
- 3. Differentiate products or services

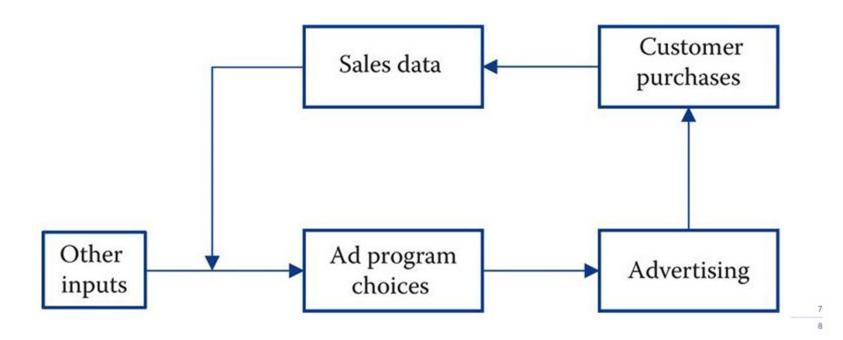
System Implementations

- 4. Lock in customers and buyers
- 5. Lock in suppliers
- 6. Raise barriers to market entry
- 7. Establish alliances
- 8. Reduce costs

MIS - Business

Competitive Strategy

- example of developing the strategy



MIS - Business

Competitive Strategy

- example of developing the strategy



How?

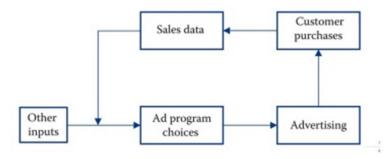


- 1. Entering **data** into the system.
- Processing that data.Processing usually involves calculating and comparing.
- 3. Storing data, whether processed or not, for future use.
- 4. Sending that data, usually after processing, from the **system** to people or to other systems.
- 5. Extracting information from the system (output) to use in ways that benefit the business.

MIS - Business

Competitive Strategy

- example of developing the strategy



How?



- 1. DATA
 - -into-
- 2. INFORMATION
 - -into-
- 3. KNOWLEDGE

Innovation and Information Technology

Changes (industry structure) occur through innovation

Sustaining technologies

- Changes in technology that maintain the rate of improvement in customer value
- □ Example: vulcanization of rubber → better tires

Disruptive technologies

- Introduction of a new package of attributes to the accepted mainstream products
- □ Example: MP3 format → disruptive to Music Industry

Information Systems & Industry Structure

- Consider the importance of technology:
 - Rate of innovation (staggering)
 - □ ^speed, ^memory → store & retrieve data quicker!
- Examples (competitive advantages):
 - Royal Bank & ATMs
 - RIM & the Blackberry
 - □ Competitive Advantage → new industry
 - Microcomputers: Microsoft, Intel, Apple, Oracle, Dell
 - Wireless Technology: RIM
 - Social Networking: Facebook, MySpace & Twitter