

Dr. Ir. Yeffry Handoko Putra, M.T



#### STEVE JOBS APPLE ESTIMATED PERSONAL WORTH: \$5.5 BILLION

# The big players

These men are all billionaires. Here's how tech got them there...



MARK ZUCKERBERG FACEBOOK

**ESTIMATED PERSONAL WORTH: \$4 BILLION** 

LARRY PAGE & SERGEY BRIN GOOGLE

ESTIMATED PERSONAL WORTH: \$17.5 BILLION EACH





- how can the practice of information strategy in an organization be analyzed
- how does information strategy relate to business strategy?





#### **INFORMATION STRATEGY IMPACT MATRIX**

### INFORMATION STRATEGY'S IMPACT UPON:

#### **IMPACTS**

Product Strategy
Production Strategy
Marketing Strategy
Competitive Strategy
Organization Strategy
Finance Strategy
Innovation Strategy
Diversification Strategy

Changes in Product Design Processes
Changes in Production Processes
Changes in Marketing Processes
Changes in Value-Added Processes
Changes in Business Processes
Changes in Financial Processes
Changes in Knowledge Processes
Changes in Planning Processes

# Alignment of Information Strategy and business Strategy



information systems strategy (ISS)

information systems strategic planning (ISSP)

strategic information systems planning (SISP)
the process of deciding the objectives for organizational
computing and identifying potential computer applications
which the organization should implement



- However, Galliers (1991) views information strategy as only a part of SISP, together with information technology (IT) strategy, information management (IM) strategy, management of change strategy, and human resources strategy.
- Earl (1989) sees SISP as a combination of information systems strategy (aligning IS with business goals, and exploiting IT for competitive advantage), IM strategy and IT strategy.





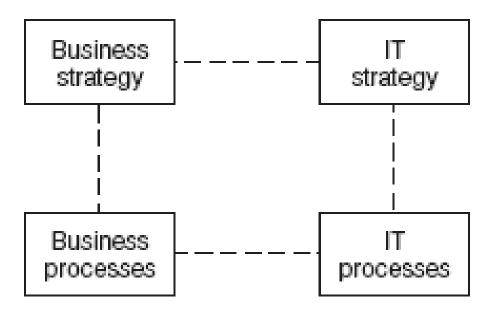


Figure 3.1 Strategic alignment model (Parker et al., 1989; Henderson and Venkatraman, 1993)





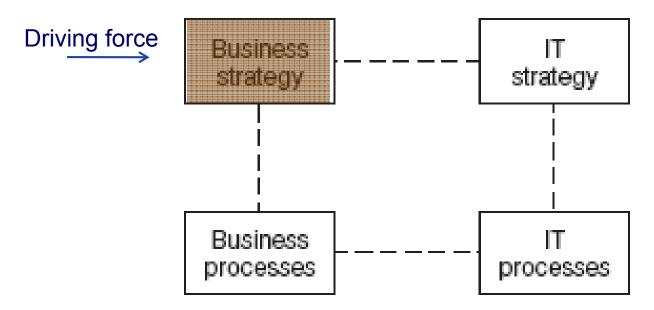


Figure 3.1 Strategic alignment model (Parker et al., 1989; Henderson and Venkatraman, 1993)

#### **Strategic Alignment Model Venkatraman (1993)**



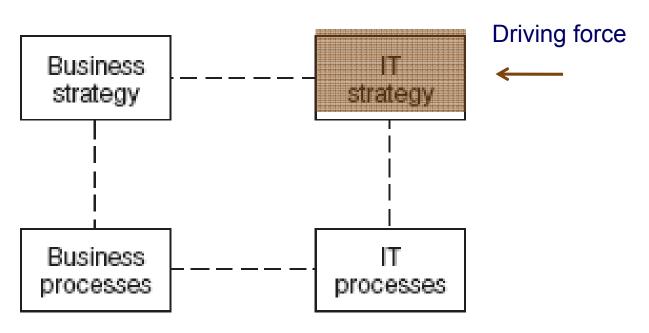


Figure 3.1 Strategic alignment model (Parker et al., 1989; Henderson and Venkatraman, 1993)

### Example Business Strategy as Driving Force: E-commerce



- 1. Internet
- Internet portal services (e.g., AOL)
- Communica

tion services (e.g., AT&T)

- 2. Retail
- Consumer products (e.g., Amaz0on, CDnow),
- 3. Markets
- Commercial supply businesses (i.e., B2B),
- Auctions (e.g., eBay),
  Materials trading markets (i.e., commodity products)

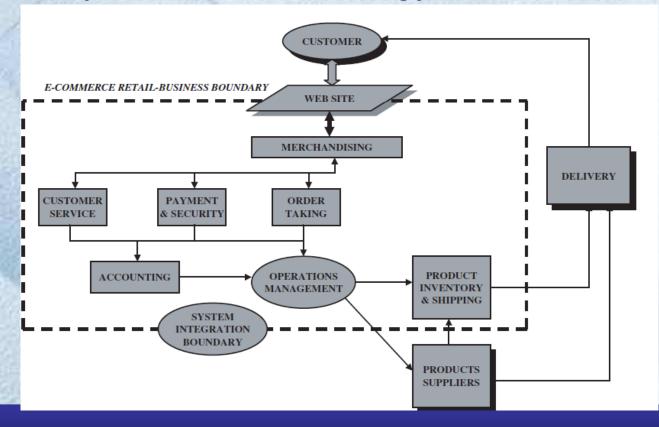
- 4. Finance
- Financial trading markets (e.g., stocks and bonds)
- Financial services (e.g., banking, credit, mortgages)
- 5. Information
- Reservations (e.g., travel, hotels)
- Query and search (e.g., Ask Jeeves)

- Entertainment
- News, music, TV, etc.
- 7. Educational
- Higher education (e.g., UMUC)
- Industrial training

### INFORMATION SYSTEM ARCHITECTURE OF A RETAIL E-COMMERCE BUSINESS (Amazon.com)



### Case Study: Business Strategy for E-Commerce







- in the business operations architecture is that the boundary of the business is not defined by a physical space but by a virtual space—the software system integration function.
- the space in which to interact with the customer is missing
- not only how one operates in a traditional business—but even how one "architects" the whole business
- Strategic change in operations requires change in procedures and in the architecture of procedures (the set of policies that structure the business activities)

### IS Strategy as Driving Force : Dell Sells on the Internet (Michael Dell)



- This case examines how one of the pioneers in the sales of personal computers used the Internet to reinvent its business—Dell computers
- Condition: Computer has standarized by IBM
- Microsoft in OS. Intel in CPU Chips and Dell in Computer
- Business Strategy: (Goal: Price Competitive)
  - Continue direct sales from telephone to internet
  - Cost Control Production:
     Dell not invested in Production, instead using Outsourcing from Japan
  - Minimizing product inventory by just in time assembly
  - Shipping by Federal Express , UPS
  - Provide Information to customer and other business which bought Dell's Product

## Strategic business challenges of information systems for e-commerce: (Dell)



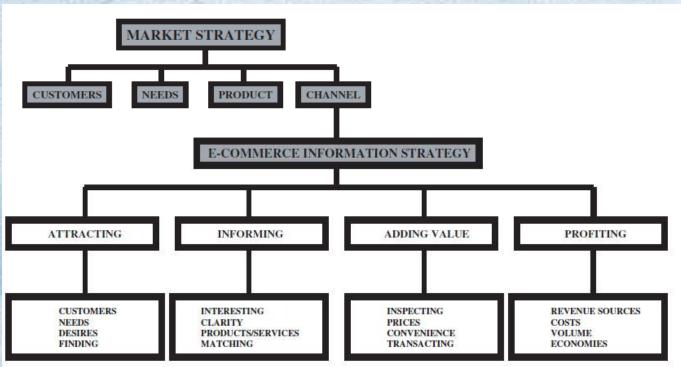
- 1. Attracting
  - customers
  - needs
  - desires
  - finding site
- 2. Informing
  - interesting
  - clarity
  - products
  - matching

- 3. Adding value
  - inspecting
  - price
  - convenience
  - transacting
- 4. Profiting
  - revenue
  - costs
  - volume
  - economies

#### **CASE STUDY**

### BUSINESS PART OF INFORMATION STRATEGY FOR E-COMMERCE





The Internet is a medium of communication and a channel of marketing

### **STRATEGIC E-PARTNERS ALLIANCE MATRIX**



#### STRATEGIC E-COMMERCE FUNCTIONS

STRATEGIC
<b>PARTNERS</b>

CDnow (example)

GEFFEN RECORDS (example)

ATTRACTING	INFORMING	ADDING VALUE	PROFITING
		CDnow's Record Sales Web site	Gross Margins
Geffen's Recording Artists Website			Sales Commissions





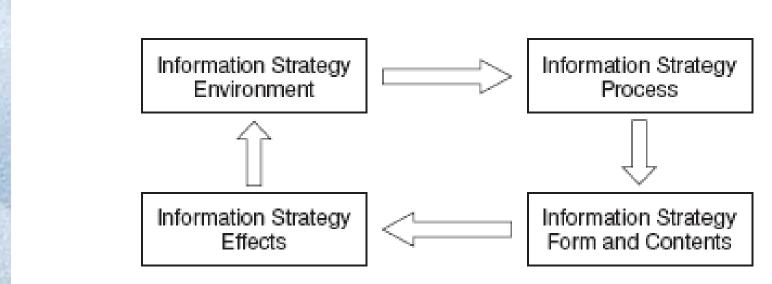


Figure 3.2 Research model describing four components of information strategy



#### The IS strategy environment

all those facts and conditions which are not part of the information strategy itself, nor of the information strategy process, but that can or should influence either of those

Table 3.2 Four aspects of the environment of information strate	Table 3.2	Four aspects	of the environ	ment of informat	tion strategy
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	Technological environment	Organizational environment
External environment	IT opportunities	Position in industry
Internal environment	IT resources	Nature of the organization





- The information strategy process describes the way in which the information strategy is created or changed
- the importance of the linkage between corporate strategy and information strategy, in the form of 'impact' and 'alignment'
- 1. Process Type:
  - Mechanical
  - problem-oriented
  - political
- 2. Methodologies and toolls: SWOT analysis
- 3. how and to what extent organizational learning





- Strategy Form defines some formal characteristics: formality, regularity of the documentation, the number of documents and pages used for expressing and communicating the strategy, and the time horizon (Mintzberg, 1991).
- Content Strategy describes the subject areas or 'issues' for which the strategy is meant to provide solutions or directions
- The main aspects of the content of the information strategy are scope, objectives, architectures, rules and plans (Earl, 1989).





- the (narrow) scope of one systems development project as result of the information strategy
- the (narrow) scope of changes in the business strategy as results of the information strategy
- the (intermediate) scope of the performance (quality) of the systems development function
- the (intermediate) scope of the performance (quality) of a specific information system, and
- the (broad) scope of (all) information services in the organization (Laudon and Laudon, 1996).

Table 3.1 Summary of the information strategies in three insurance companies

	Info	rmation strategy	,	
Components/aspects		In company A	In company B	In company C
Environment	Position in the industry	Second tier	Dominant/	Тор
	Main distribution channel	Bank	Direct writer	Intermediaries
	Special factor	Recently merged	About to merge	Partner in ADN
	Company revenue	\$2000M	\$2000M	\$3000M
	Employees	2000	2000	4000
	Business	Explicit,	Explicit,	Explicit,
	strategy	known	known	known
	Internal	Product	Market	Product
	organization	oriented	oriented	oriented
	Management attitude to IT	Positive	Very positive	Very positive
	IT expenditures/	<2%	>2%	<2%
	revenue Existing architecture	Central/ decentral	Two tiered	Centralized
Process	Process type Overall	Mech/problem No	Political/mech No	Mech/politica No
	methodology	Yes	Informal	Informal
	IT scanning SWOT	Informal		
		No	Occasionally	Informal No
	CSF		Occasionally	
	Role top management	Dominant	Active	Active
	Line management	Active	Active	Present
	IT management	Active	Dominant	Dominant
	Planning specialist	One	_	_
	External consultant	_	_	_
	Alignment	Yes	Yes	Yes
	Impact	Not clear	Yes	Yes
	Organizational learning		Some	Some

Table 3.1 Continued

Information strategy					
Components/aspects		In company A	In company B	In company C	
Form and content	Time horizon Scope Objectives Systems architecture	Five years IS/IT Very specific Evolving	Three years IS/IT/telecom Explicit Extensive, clear	Three years IS/IT Implicit Implicit	
	Technical architecture	Evolving Clear	Clear	Clear	
	Organizational architecture Rules, alliances	Implicit, few	Implicit, few	Implicit, strict	
	Plans	Projects	Projects, budgets	Projects, budgets	
Effects	User satisfaction	Not measured	Not measured	Not measured	
	Project results Bottom line results	Evaluated Not measured	Evaluated Tentative	Evaluated Not measured	





- 1. Questionnaire about 4 IS Component with Manager: yes or no question
- 2. Questionnaire about Decision to top executive
  - the key (IS related) decisions taken in the previous years (reasons, effects)
  - the information strategy process and the roles of different parties in the organization, and
  - the value of the information strategy activities.



# **CASE STUDY: Beauty Goods in Cyberspace (Read Betz Chap 11)**



Last week's [January 17, 2000] purchase of Beauty.com by Drugstore.com for

\$42 million in stock marked the first of what could be a rash of consolidations

among online retail categories cluttered with well-financed—but poorly patronized—

Web stores.
—(Tedeschi, 2000, p C1)



But these purveyors of glamour have concerns more pressing than the sheer number of competitors. Analysts say that any online retailer hoping to make a dent in the estimated \$15 billion beauty market cannot hope to succeed without the cooperation of the Big Three of the beauty industry—Lancome, Estee Lauder, and Clinique.

—(Tedeschi, 2000, p. C1)

"Companies like Estee Lauder see their brands as the crown jewels," said Lisa

Allen, an analyst with Forrester Research. "They pay close attention to things like how and where they're displayed, who they're next to."

—(Tedeshi, 2000, p. C1)