



UNIVERSITY  
of OSLO

# IS & Strategy

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# Aims

- Understand relationship between IS and Business Strategy
  - What strategy is
  - Strategic potential of IS
  - IS and Strategic **Change**



# Content

- Mainstream IS Strategy Literature – *Ch. 3*
  - What is Business Strategy?
  - What the strategic role of IS?
  - How to link Business Strategy and IS Strategy?
- IS and Business Process Change – *Ch. 4*
  - How does IS change the way organizations work?
- De Profundis? Unveiling Strategy in Organization – *Claudio Ciborra*
  - What are the limits of these approaches?
  - What alternative approaches?



# What is Strategy?

- Long term plan to achieve a certain Goal
- Different from Tactics
- A business strategy strives to create a **Sustainable Competitive Advantage**



# What is a competitive advantage?

		Competitive advantage	
		<i>Lower cost</i>	<i>Differentiation</i>
Competitive scope	<i>Broad target</i>	COST LEADERSHIP	DIFFERENTIATION
	<i>Narrow target</i>	COST FOCUS	DIFFERENTIATION FOCUS

Figure 3.2 Generic strategies

Source: Porter (1985).



# Comp. Adv. and the Value Chain

- Comp adv cannot be understood by looking at a firm as a whole
- Stems from the many activities a firm performs
  - Designing
  - Producing
  - Marketing
  - Delivering
  - Supporting the products...

## ⇒ The value chain

- ⇒ Disaggregates the firm into its strategically relevant activities
- ⇒ Understand behavior of costs and potential sources of differentiation



# Comp. Adv. and the Value Chain

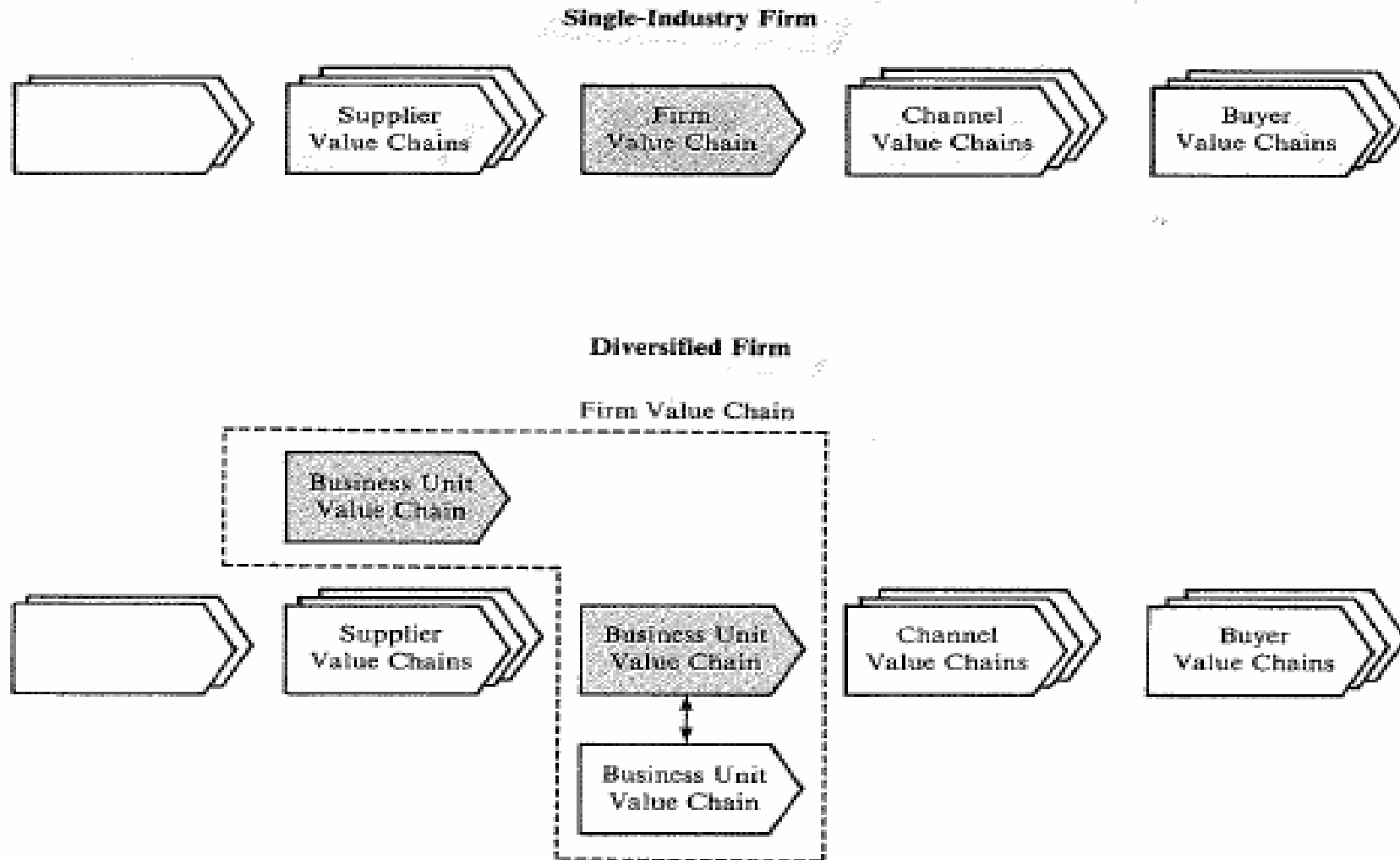


Figure 2-1. The Value System

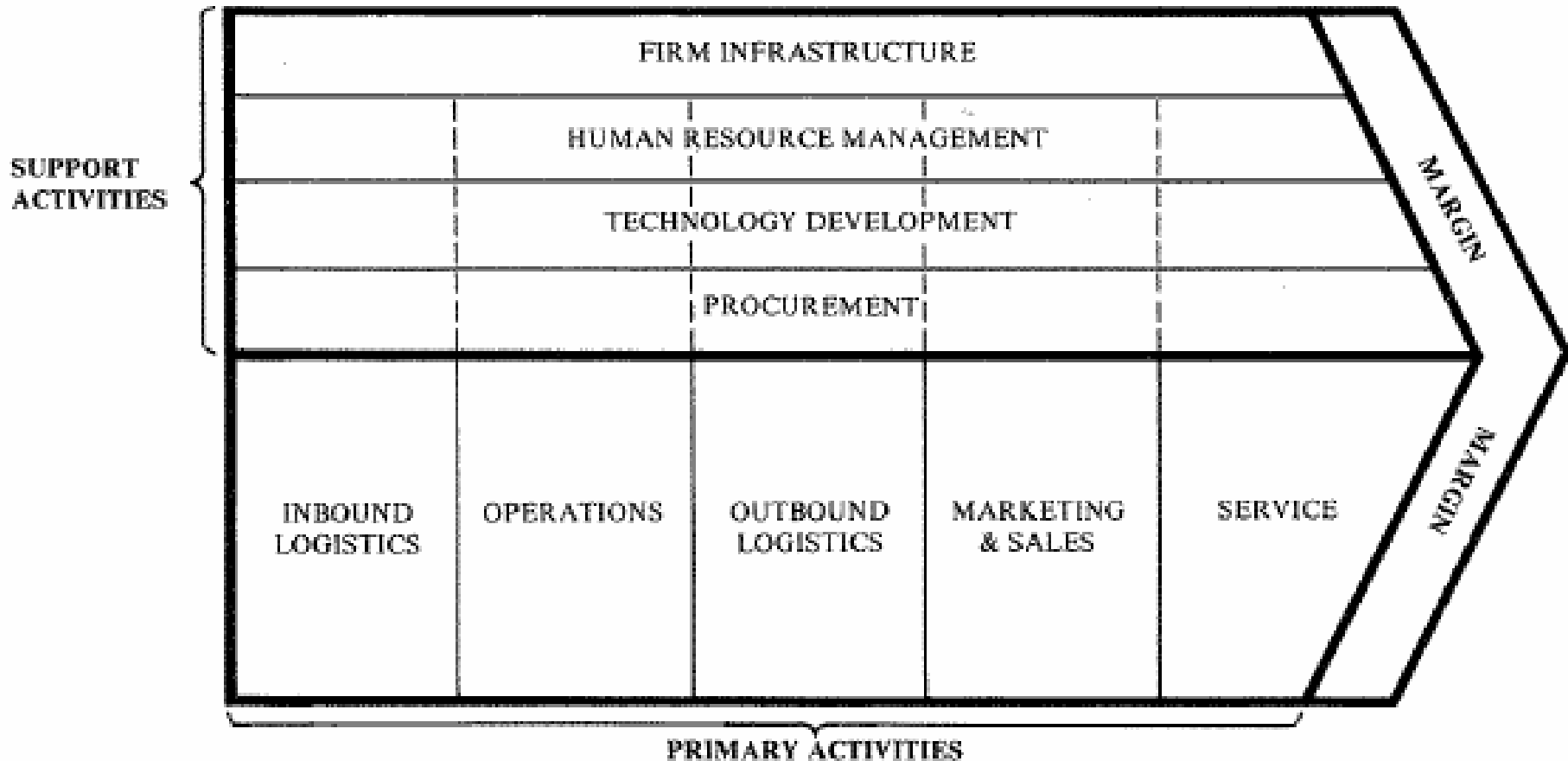


Figure 2-2. The Generic Value Chain





# Comp. Adv. and the Value Chain

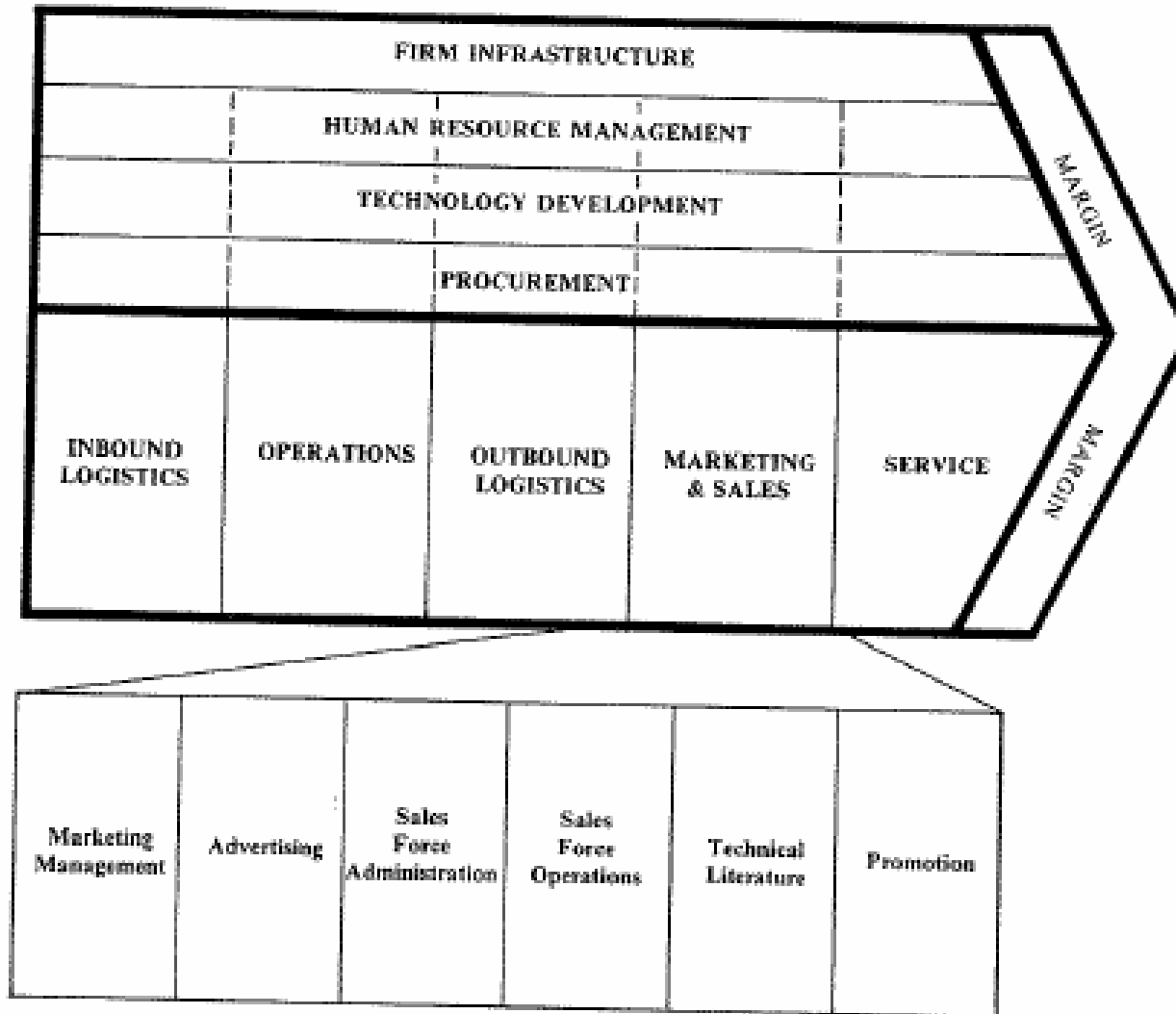


Figure 2-3. Subdividing a Generic Value Chain

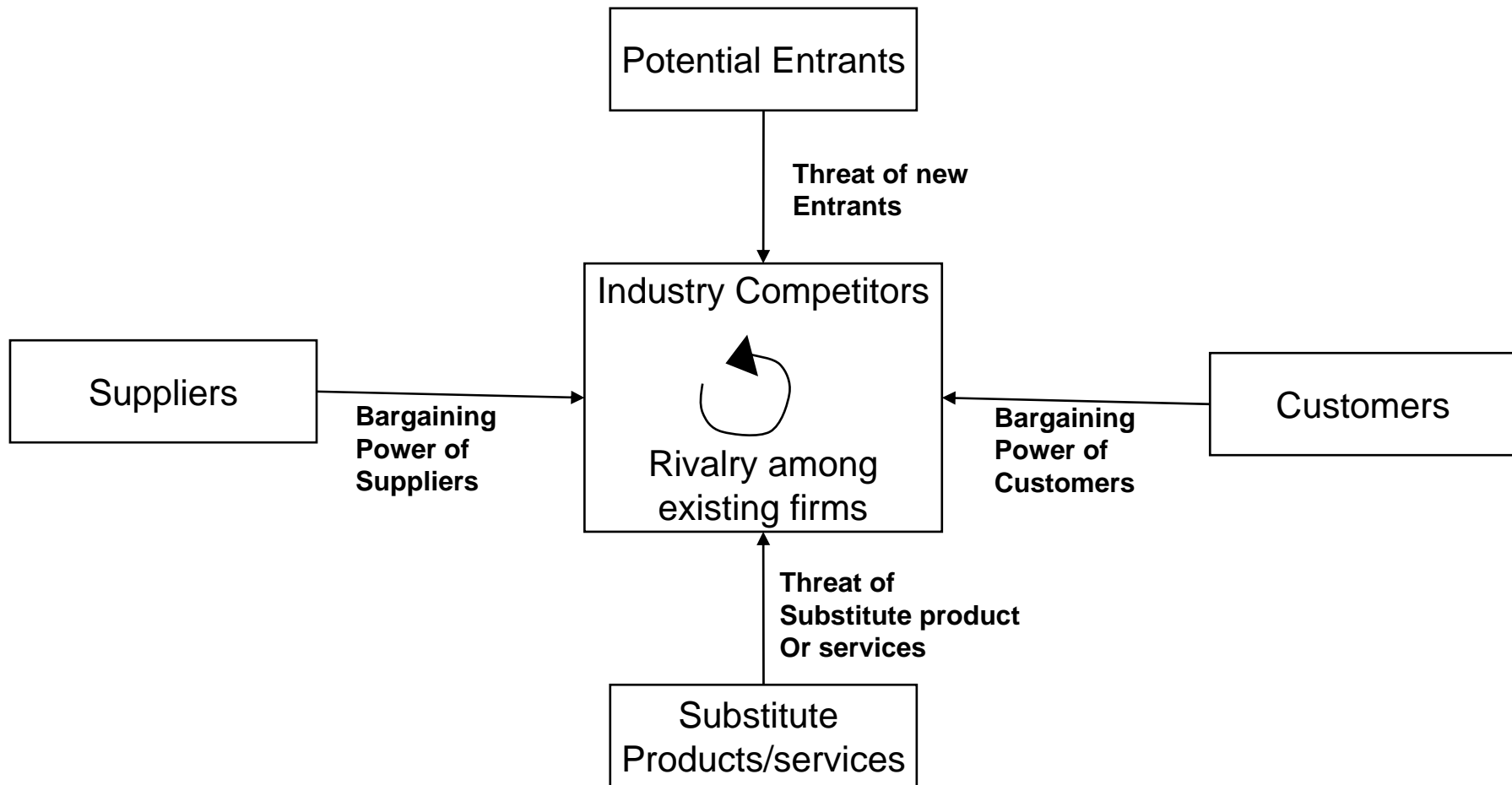


# Porter's Competitive Strategy Framework 1

- Industry analysis framework of competitive strategy to help identify competitive forces that any (for profit) company needs to consider
- Five forces are identified: competitive advantage is obtained by intervening in these five dimensions
- IT/IS has a role in shaping the competitive advantage of a company, by intervening in the five dimensions



# Porter's Competitive Strategy Framework 2





# The Strategic Role of IT

<b>Competitive Force</b>	<b>Potential of IT</b>	<b>Mechanism</b>
New Entrants	Barriers to entry	<ol style="list-style-type: none"><li>1. Erect</li><li>2. Demolish</li></ol>
Suppliers	Reduce bargaining power	<ol style="list-style-type: none"><li>1. Erode</li><li>2. Share</li></ol>
Customers	Lock in	<ol style="list-style-type: none"><li>1. Switching costs</li><li>2. Customer information</li></ol>
Substitute Products/services	Innovation	<ol style="list-style-type: none"><li>1. New Products</li><li>2. Add value</li></ol>
Rivalry	Change the relationship	<ol style="list-style-type: none"><li>1. Compete</li><li>2. Collaborate</li></ol>

# But where does strategy come from?

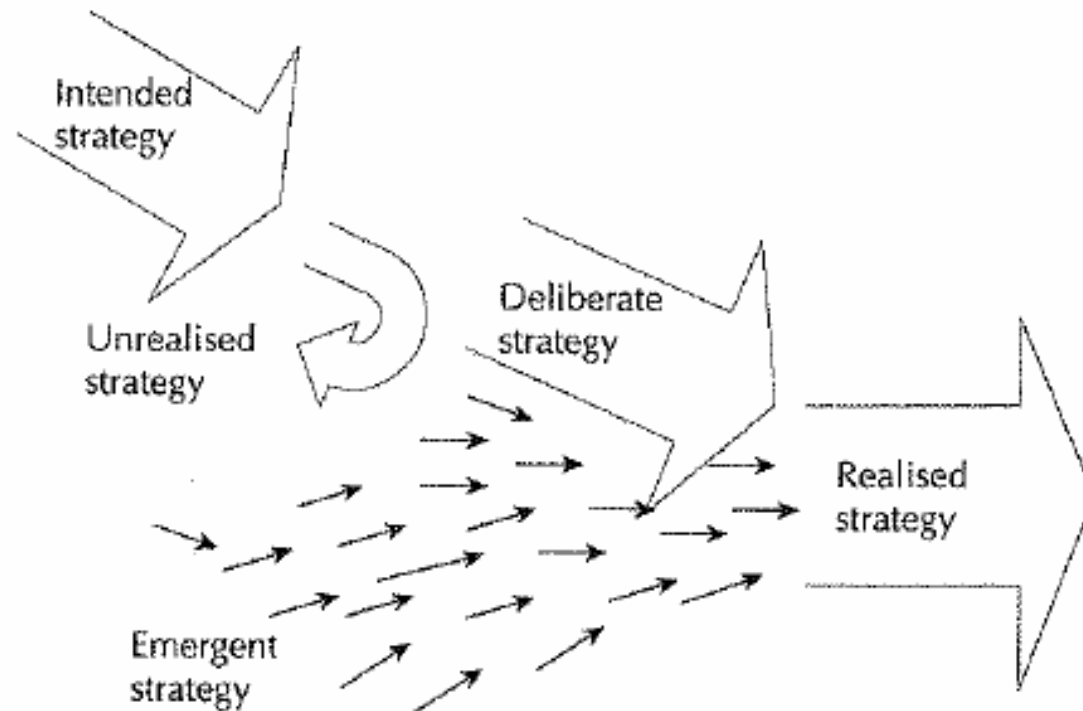


Figure 3.1 Deliberate and emergent strategies

Source: Mintzberg et al. (2003).

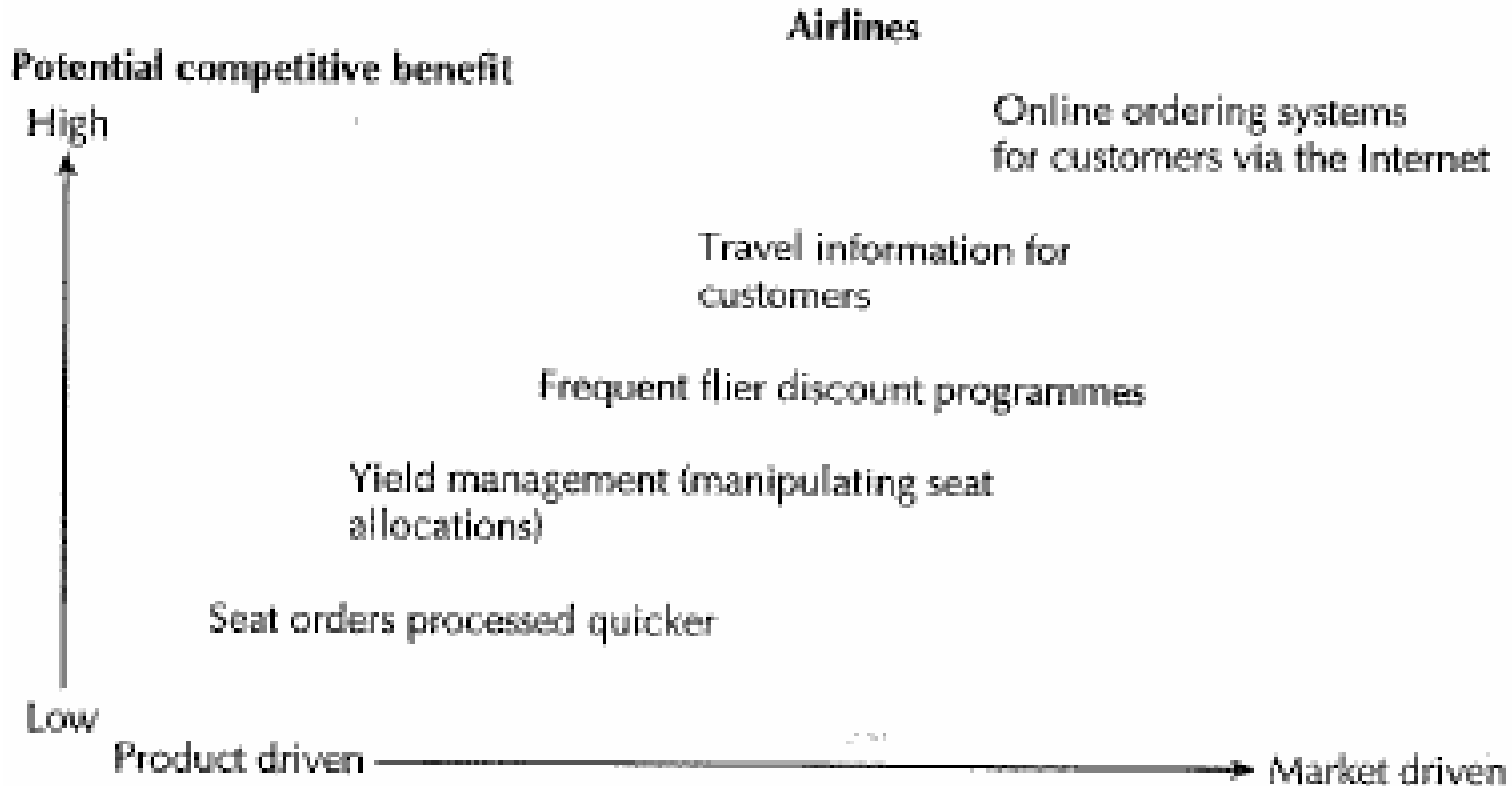


# What relation between IS and Business Strategy?

- Strategic choice: General Strategy determines IS strategy – *bar codes in supermarkets*
- Technological Imperative: IS opportunities open up new possibilities for business strategies – *dot.com models*
- Interaction model: mutual influence – *Banking sector*

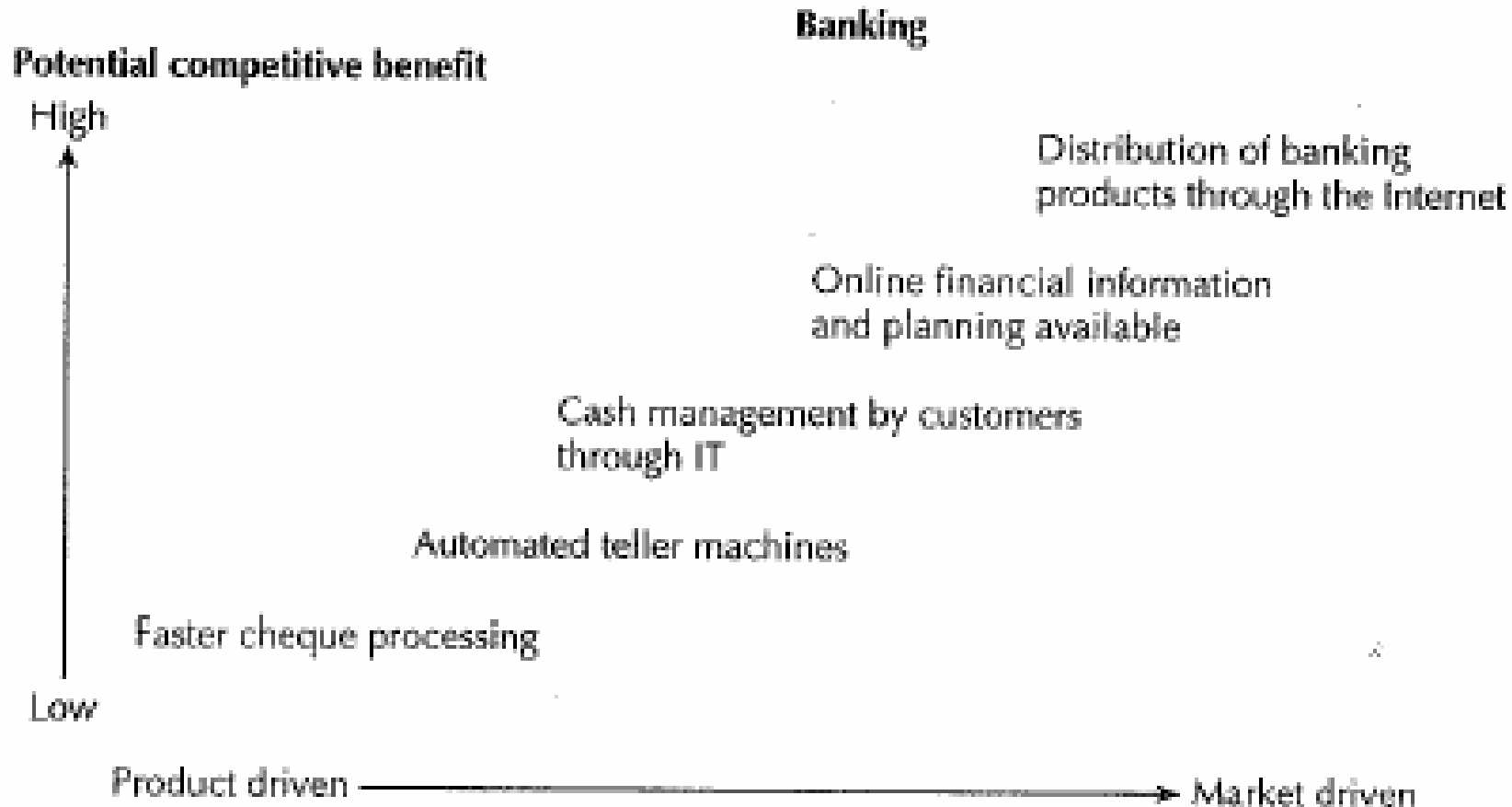


# Example 1





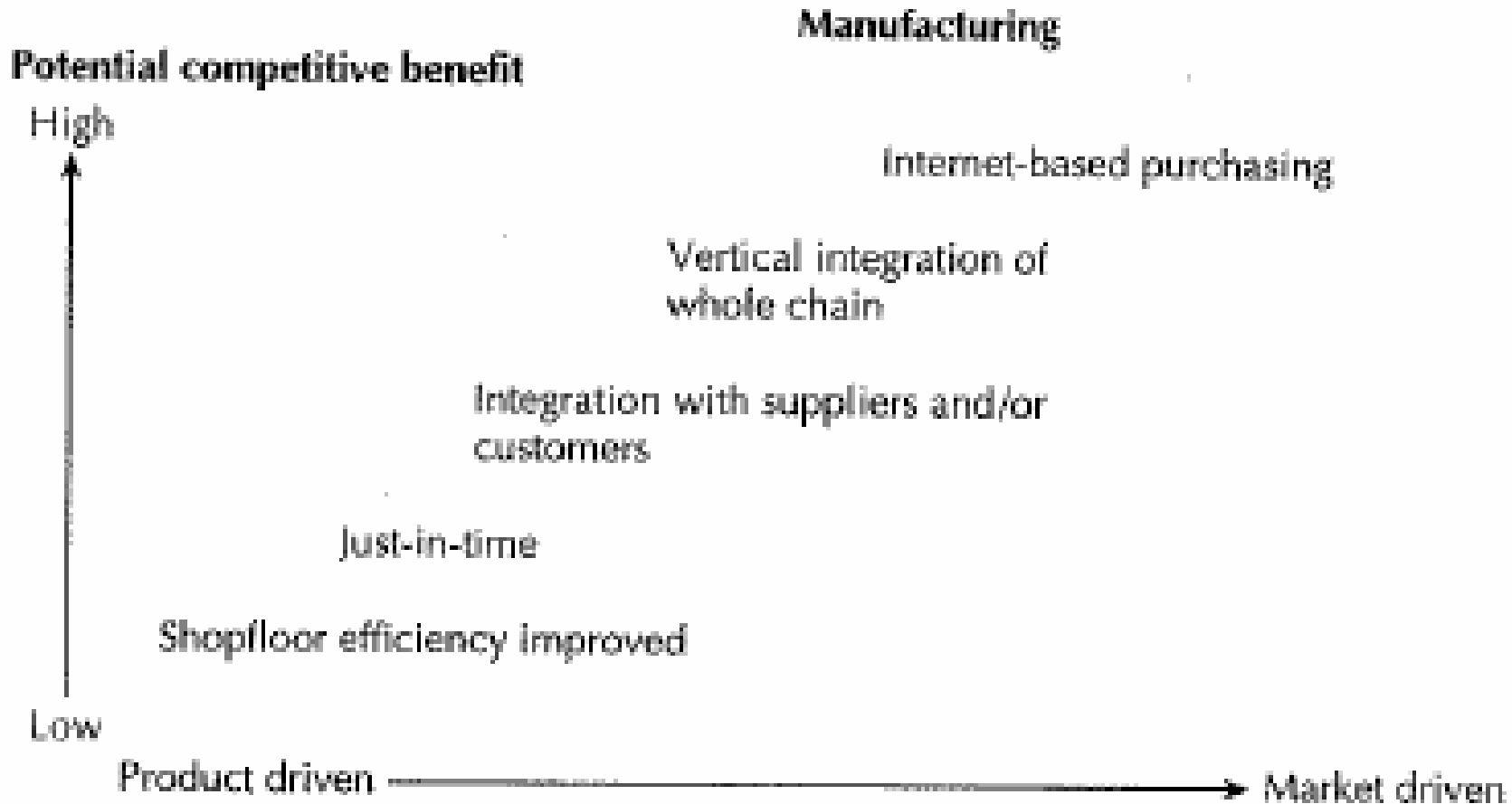
# Example 2





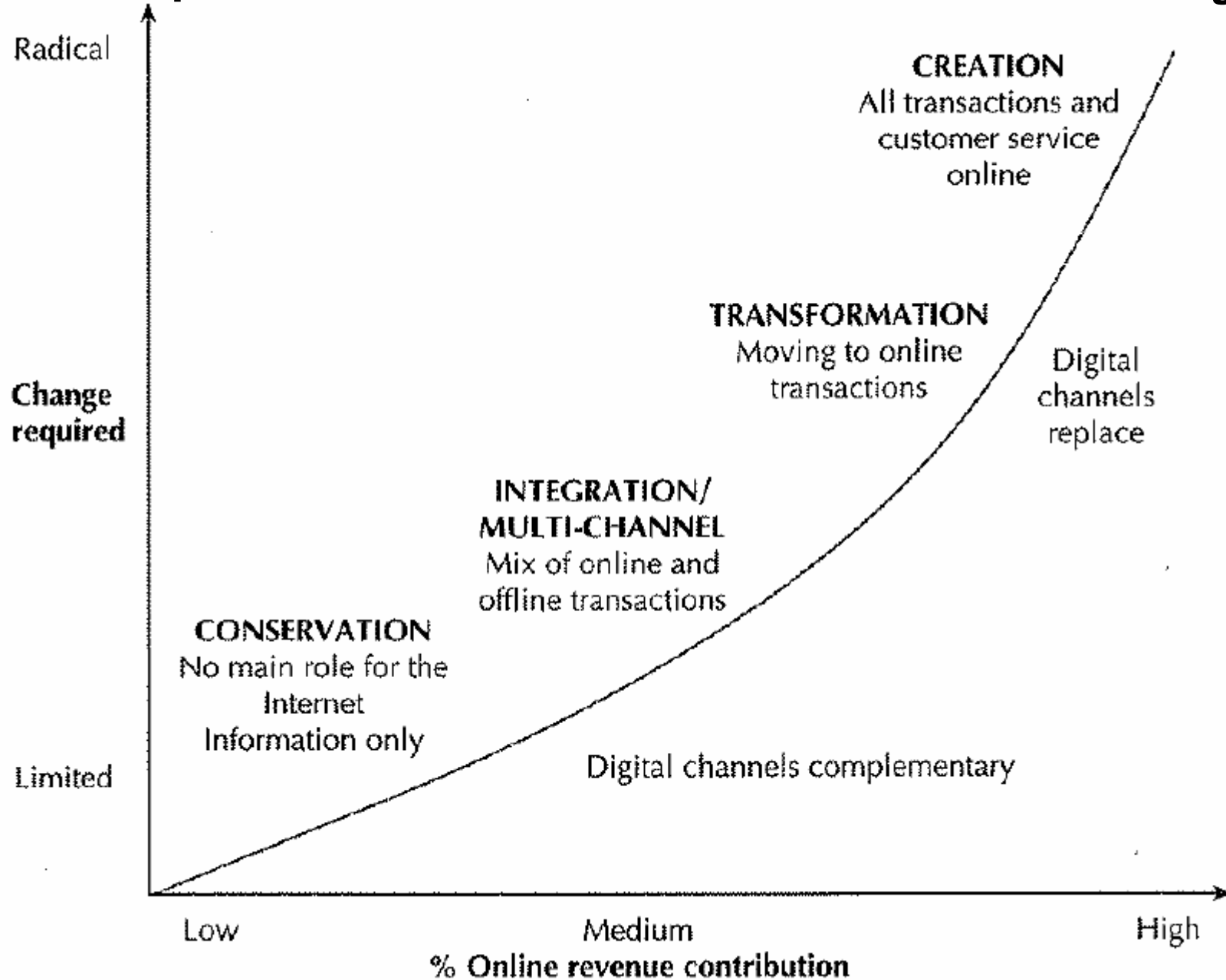


# Example 3



# Example: e-Business

## Part 1: Strategy & IS



# How to do it? Strategic Alignment

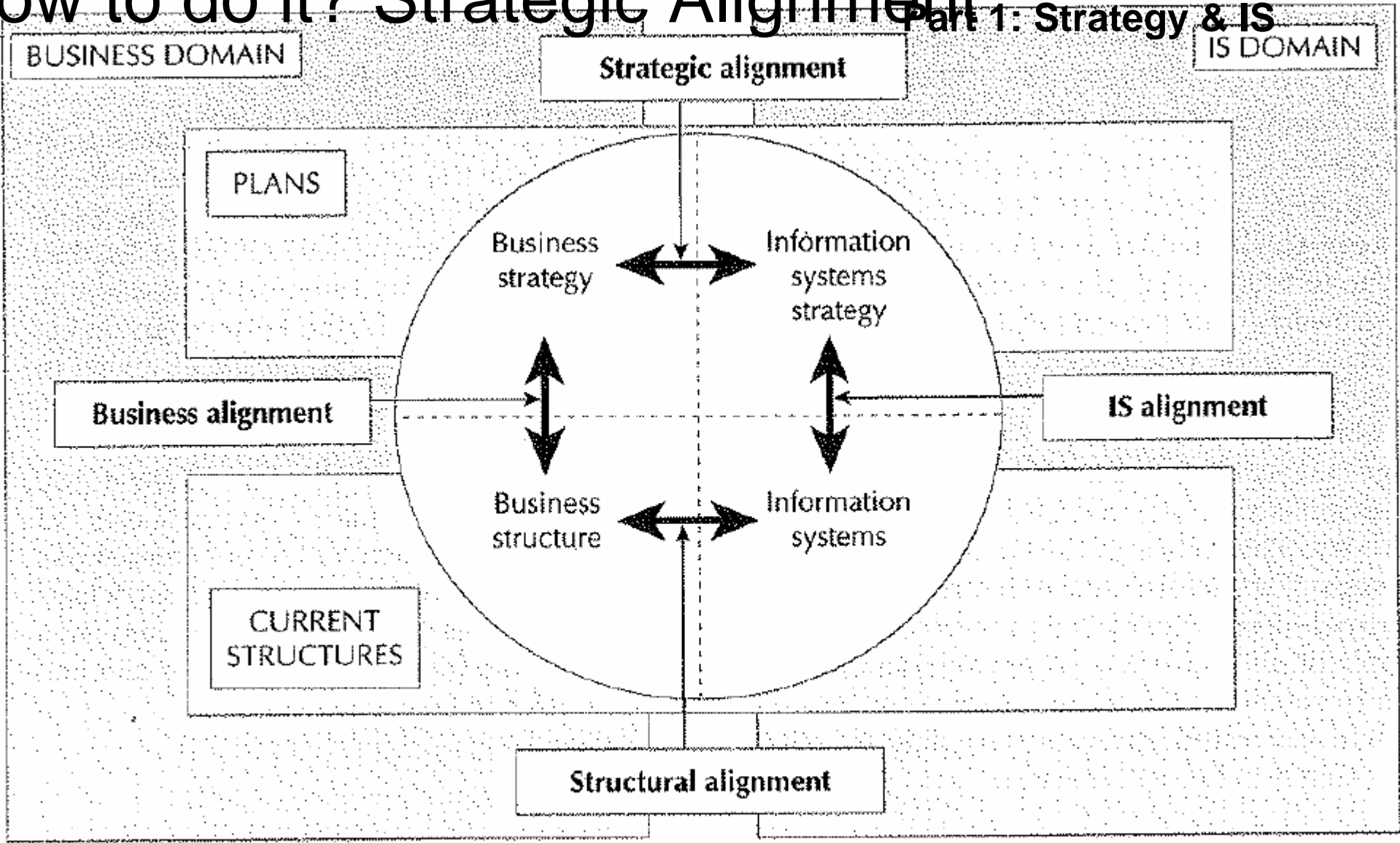


Figure 3.8 Alignment between IS and organisation, in plans and in operations

Source: Lockamy et al. (1997); Sabherwal et al. (2001)



# IS as a threat to strategy

- New IT creates opportunity for some but **threats** for others
- Management time and increase of the technostructure
- Complexity of implementations and installed base
- IT as a strategic asset or as a cost of running business? (Nicholas Carr – HBR 2003)

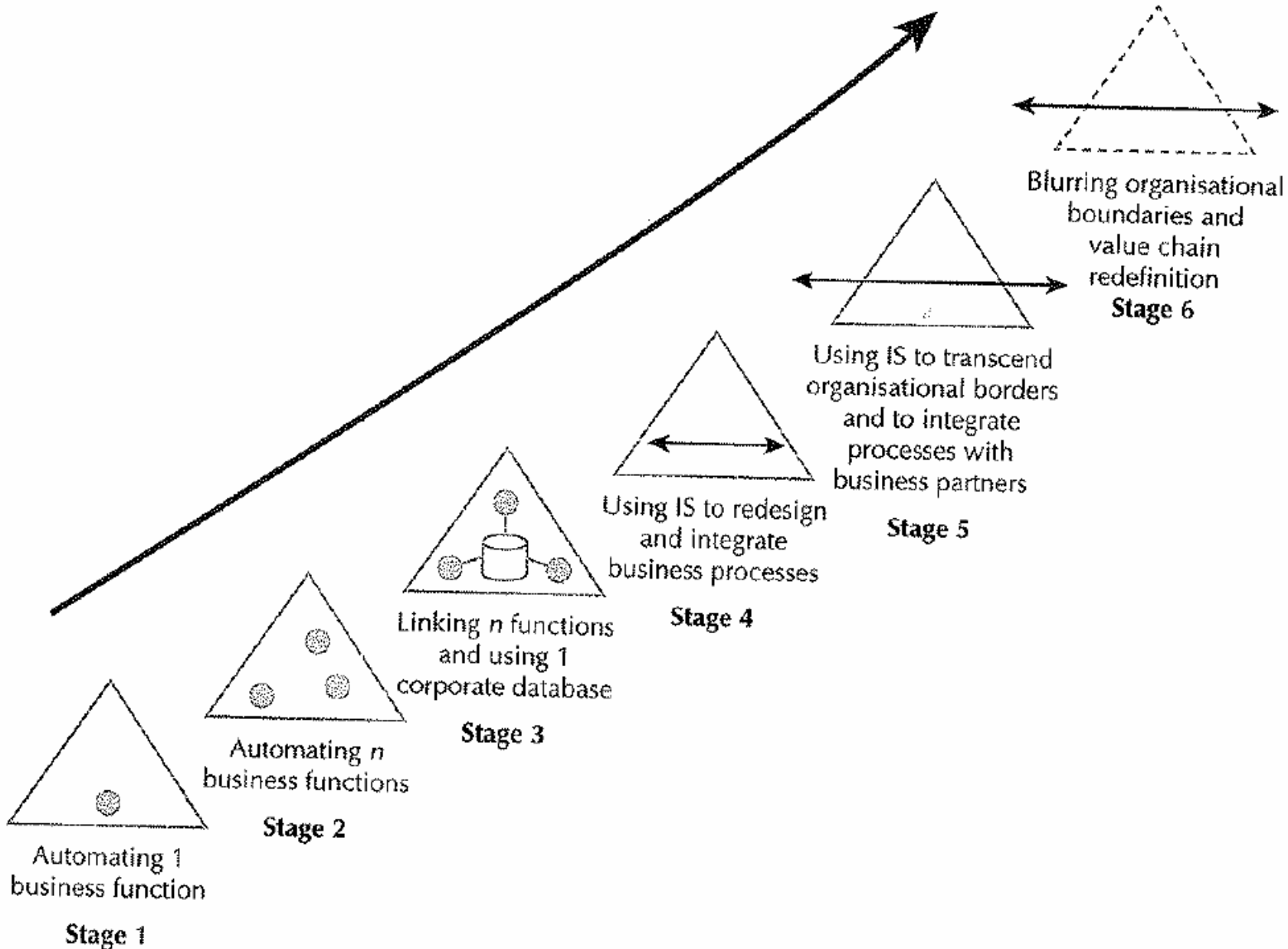


# Other challenges

- IS investments unrelated to business strategies
- Difficult estimation of Return On Investment
- Risk of technology driven strategies (technology for the sake of technology)
- Links to other functional areas
- Potential IS developments
- Interaction
- Lack of expertise
- Strategy as **learning** and **implementing change**



# Evolution of IS in orgs Part 2: BPR





# Business Process Reengineering

- From a functional to a process view
- Ownership of the process
- Customer focus



# Role of IS/IT in BPR

- Dual role of IT in BPR
  1. IT used to support redesigned processes
  2. IT allows processes to be redesigned





# Intended Effects of BPR

- Processes are less fragmented and cross-functional
- There is a process owner
- People handling the output of the processes define how the process should work
- Flatter organization structure
- Greater focus on customers
- Improved teamwork



# Unintended Effects of BPR

- **Failure rate around 70%**
- BPR as a way to do downsizing (major workforce reduction)
- Often with no strategic vision (rather cost-cutting pragmatism)
- Involuntary loss of creative innovative people
- It was a HUGE business for IT consultants

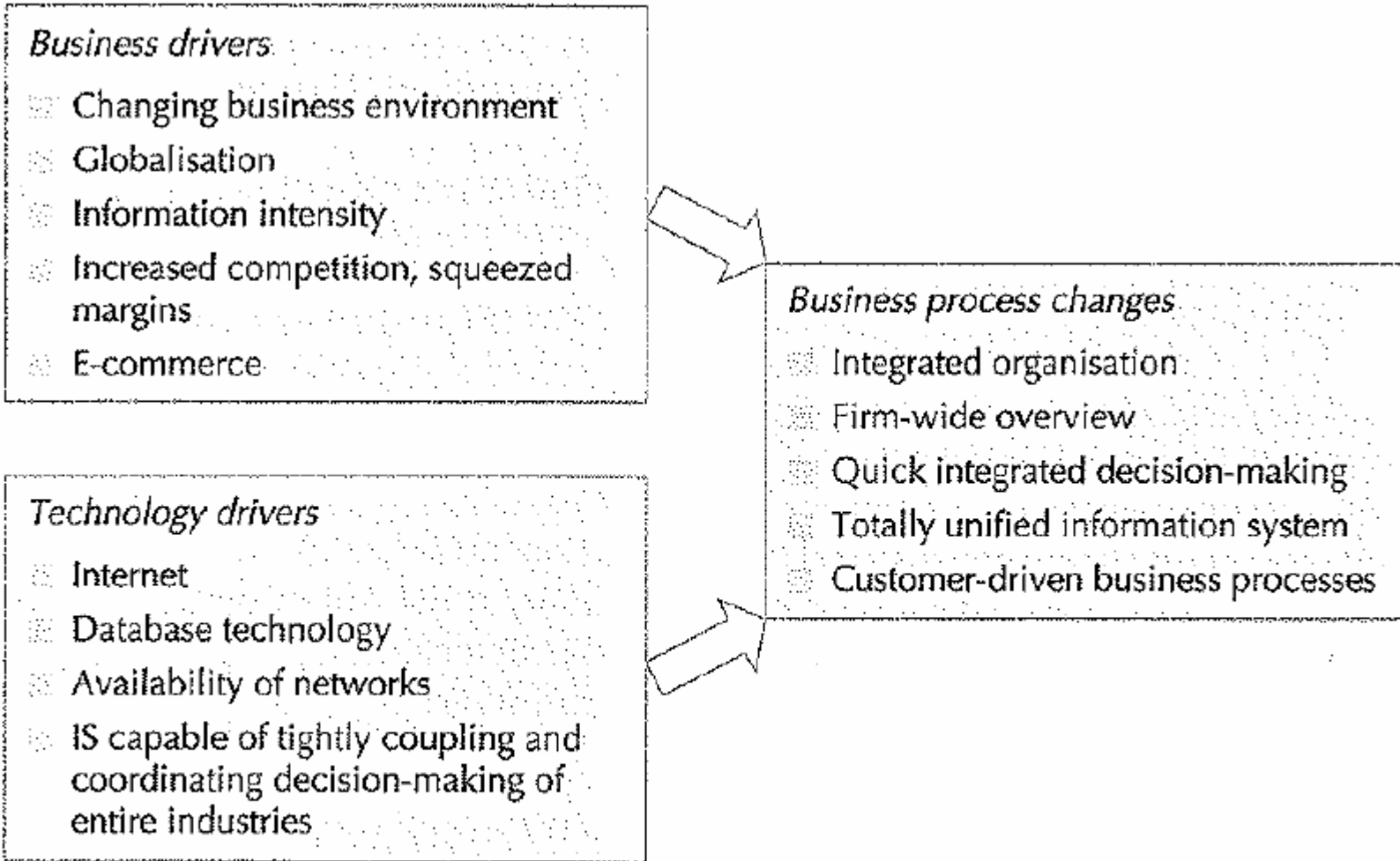


Figure 4.7 Business and technology drivers behind process change through ERP systems



# De Profundis? Deconstructing the concept of Strategic Alignment

- 1990s Huge success of concept of "Strategic Alignment"
- Late 1990s crisis of the concept
  - ⇒ Strategic alignment is a "truism"
  - ⇒ BUT far from being implemented in the real world
    - ⇒ Strategy tinkering
    - ⇒ IT infrastructure drift
  - ⇒ WHY?
    - ⇒ Assumptions?
    - ⇒ Methodology?
    - ⇒ Contribution?



# Making sense of Strategy: Ciborra

- Observing how alignment is achieved in the field:
- Strategic relevance of practices like:
  - Care
  - Cultivation
  - Hospitality
- Simmetry of management and technology
  - Technology as an actor: technology aligns management
- Alignment as strategic alliance between humans and not-humans



## An alternative approach

- From "measuring and categorizing" to "questioning and thinking"
- *"At the exclusion of thinking and reflection-in-action, who pays the final price? Our customers. Once they leave the MBA classes, managers who have been exposed to such illusionary models are left alone and disarmed in front of the intricacies of real business processes and behaviors, which in the meantime have become even more complicated than when these managers left for their courses. **People's existence carefully left out of the models, waits for them at their workplace.**"*



## Beyond Geometry: Strategic Alignment unveiled

- Def: Dynamic fit between external and internal domains (product/market, strategy, administrative structure, business processes and IT)
- Economic performance is argued to be enhanced by finding the right fit between external positioning and internal arrangements
- BUT
- Cases of successful Strategic IS show that **tinkering**, not conscious alignment was the origin of successful aligned IT applications



# Beyond Geometry: continued...

- Problem of the relationship between **management models** and everyday phenomena concerning the **existence of people** at work
- Q1: What happens when we link the boxes of strategy, organization and IT on the diagram?
- Q2: How do these geometrical lines translate into a new management performance?





## Beyond Geometry: the two ways path

- From the messy world to the de-world geometrical image of the organization
    - Ok, but we have to **admit** that we can understand alignment only thanks to our tacit knowledge of the messy world
  - From the geometrical representations to the everyday business world:
    - Does not work: from the notion of alignment we cannot reconstruct (or intervene into) the everyday world of business
- ⇒ There is no alignment to be measured
- ⇒ Geometrical models are superstructure worlds, outcome of an idealization process



# A new language

- Og back to basic evidences, encounter the world as it presents itself in our everyday life
  - Approache everyday life of managers
  - Frustrations
  - Accomplishments
  - Gossips
  - Confusion
  - Bricolage
  - Joy
  - Desperation



# A new language: Care

- Familiar, intimacy and continuous commitment
- **Perception:** abstraction, idealization, rationalization
  - » Limit of research on strategic alignment
- **Circumspection:** practical problem solving and learning
- **Understanding:** becoming intimately familiar with systems and tools: they disappear



# A new language: Hospitality

- How technology is aligned?
  - General coping and understanding of the world: CARE
  - Acceptance and hosting: HOSPITALITY
- Technology as a stranger
- Ambiguous role of technology



# A new Language: Cultivation

- To approach the everyday intricacies of relationship between strategy and technology
- Dynamic interaction between current strategy and future technology
- Cultivation based on frequent misalignment and misfits



# Who is aligning whom?

- Embeddedness of IT infrastructure in organizational practices
  - Standards
  - Heterogeneity of actors
  - History, path dependency
- => Installed base



# A New Research Program

- Research that does not estrange us from worldly existence of people
- Going back to the facts themselves, bracketing abstract concepts
- A new language
- New perspectives on technology
- Enlarged notion of alignment within a hybrid network of actors



# Conclusions

- IS has a strategic value
- Business and IS strategy alignment is a central but controversial issue
- Textbook: critical to management BUT aligned with mainstream
- De Profundis: example of alternative perspective





# Best strategy books?

- Michael Porter – Competitive Advantage
- Chris Argyris – Organizational Learning
- Shapiro & Varian – Information Rules



# Str. AI.: What IT?

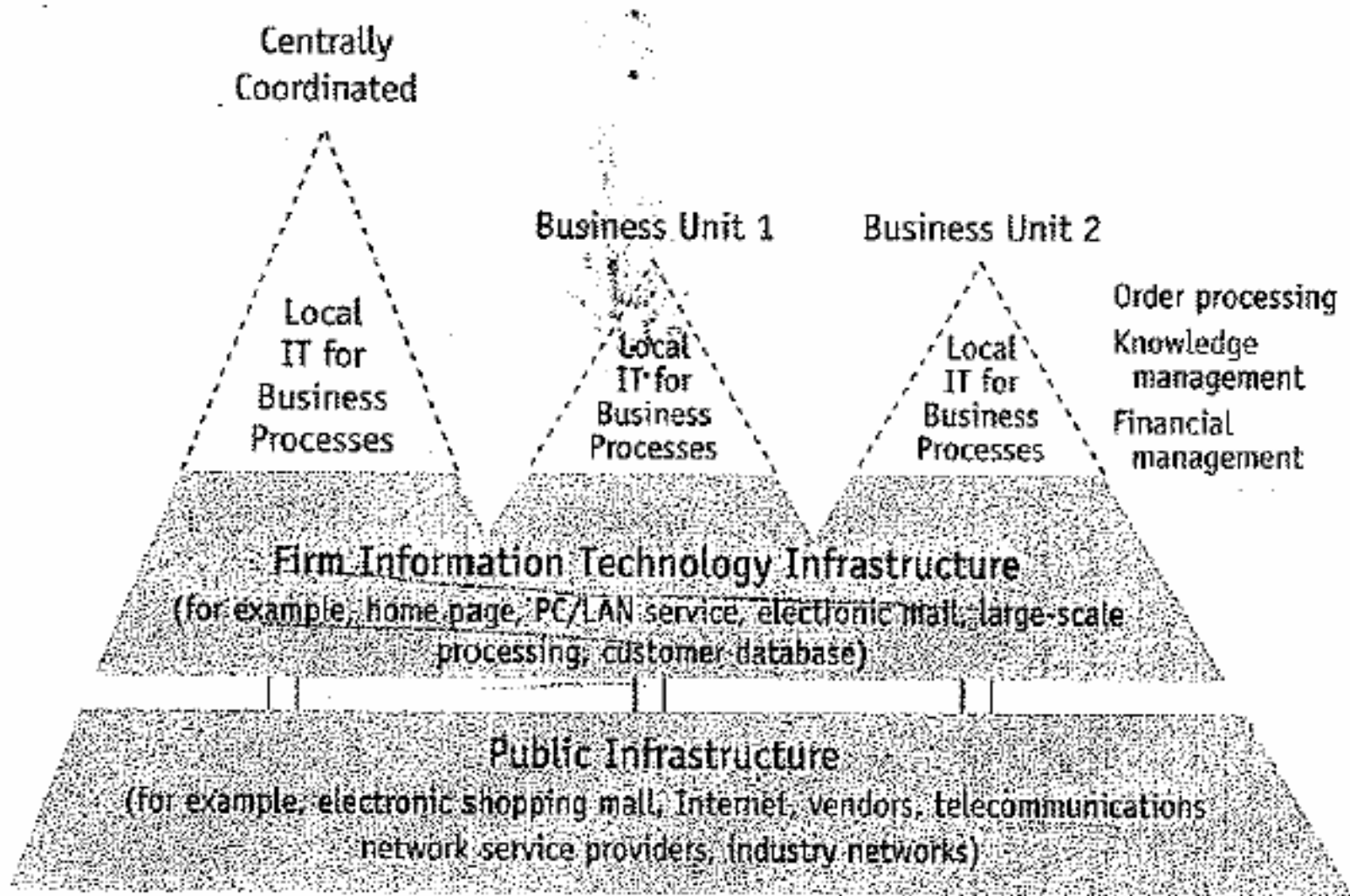
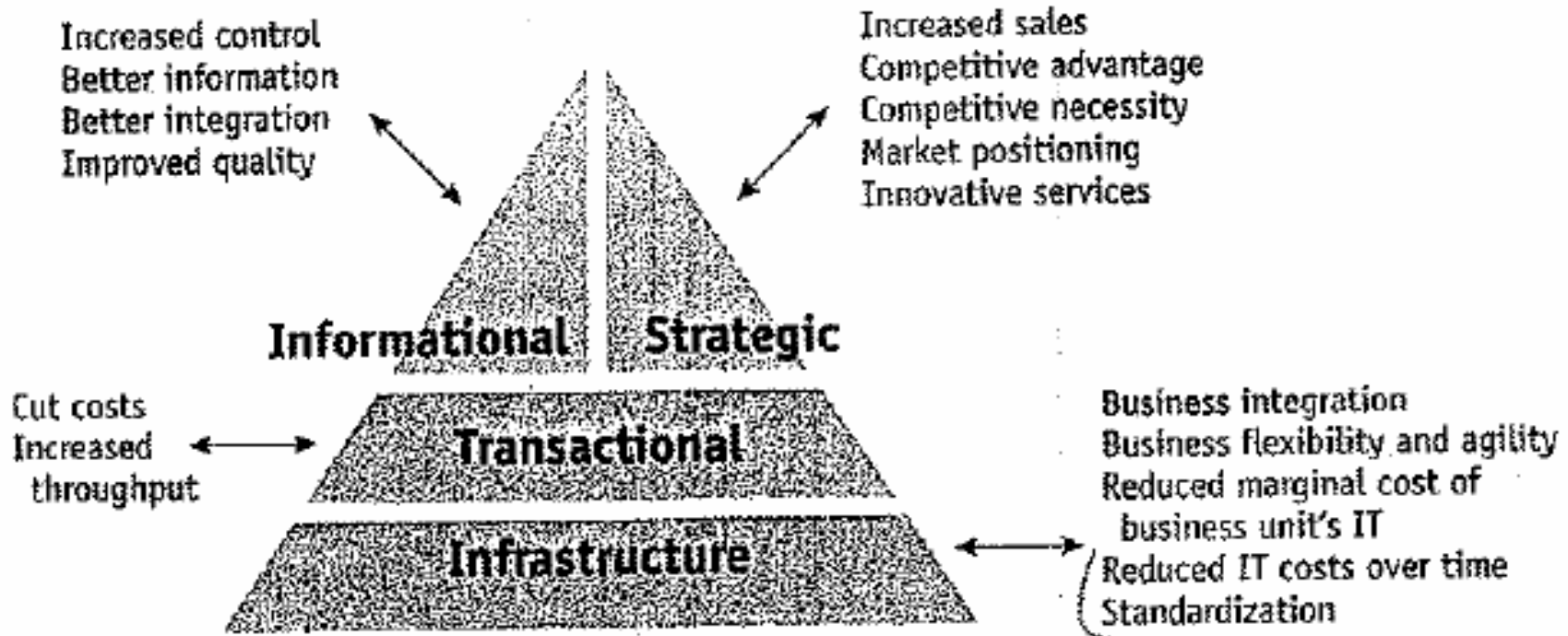


Figure 1.1 The New Infrastructure



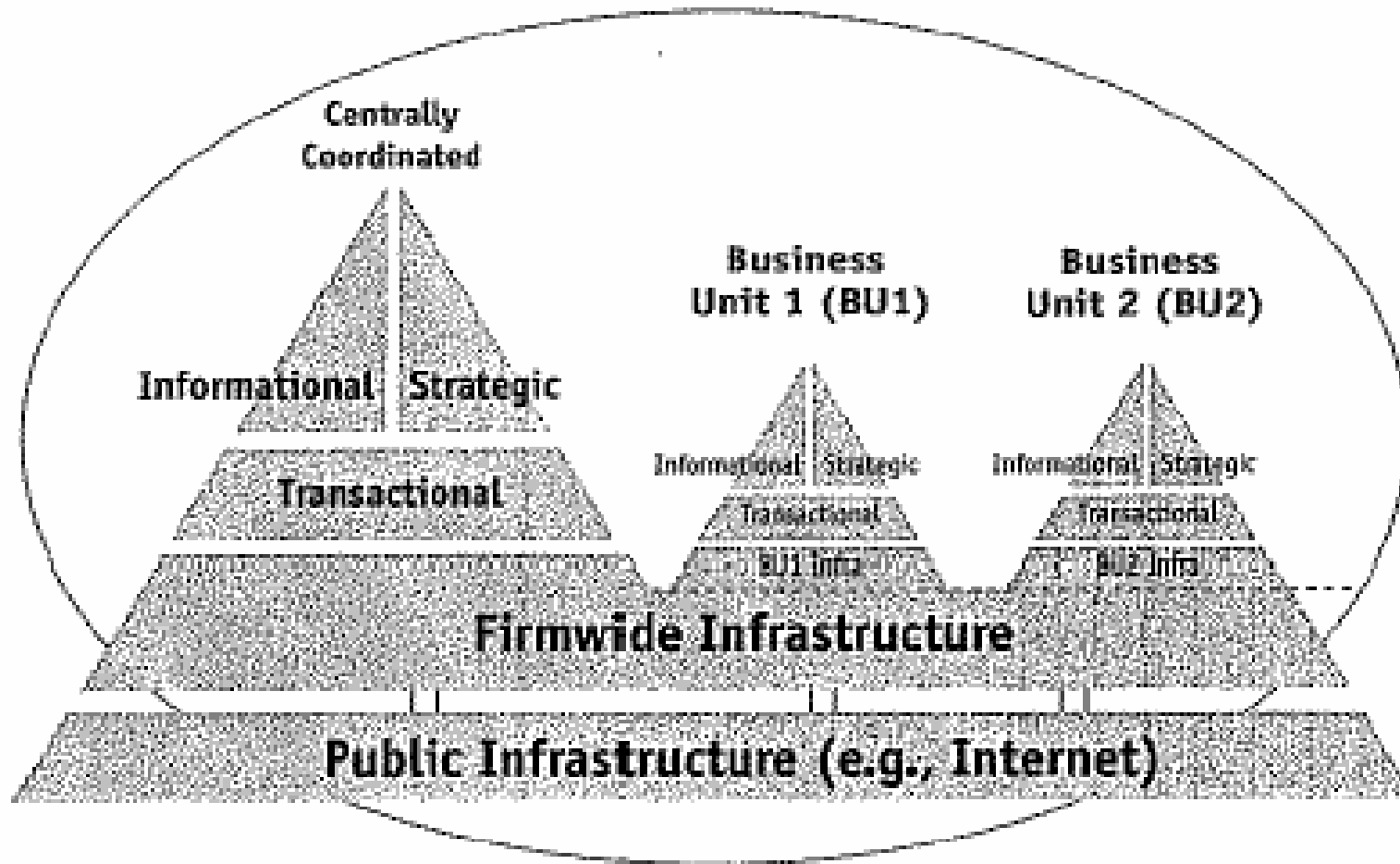
# Str. AI.: What is IT strategy?

- The IT Portfolio



**Figure 2.1** Management Objectives for the Information Technology Portfolio

# Str. AI.: IT portfolio



**Figure 2.3** Information Technology Portfolios in a Multibusiness-Unit Firm



# What is Strategic Alignment?

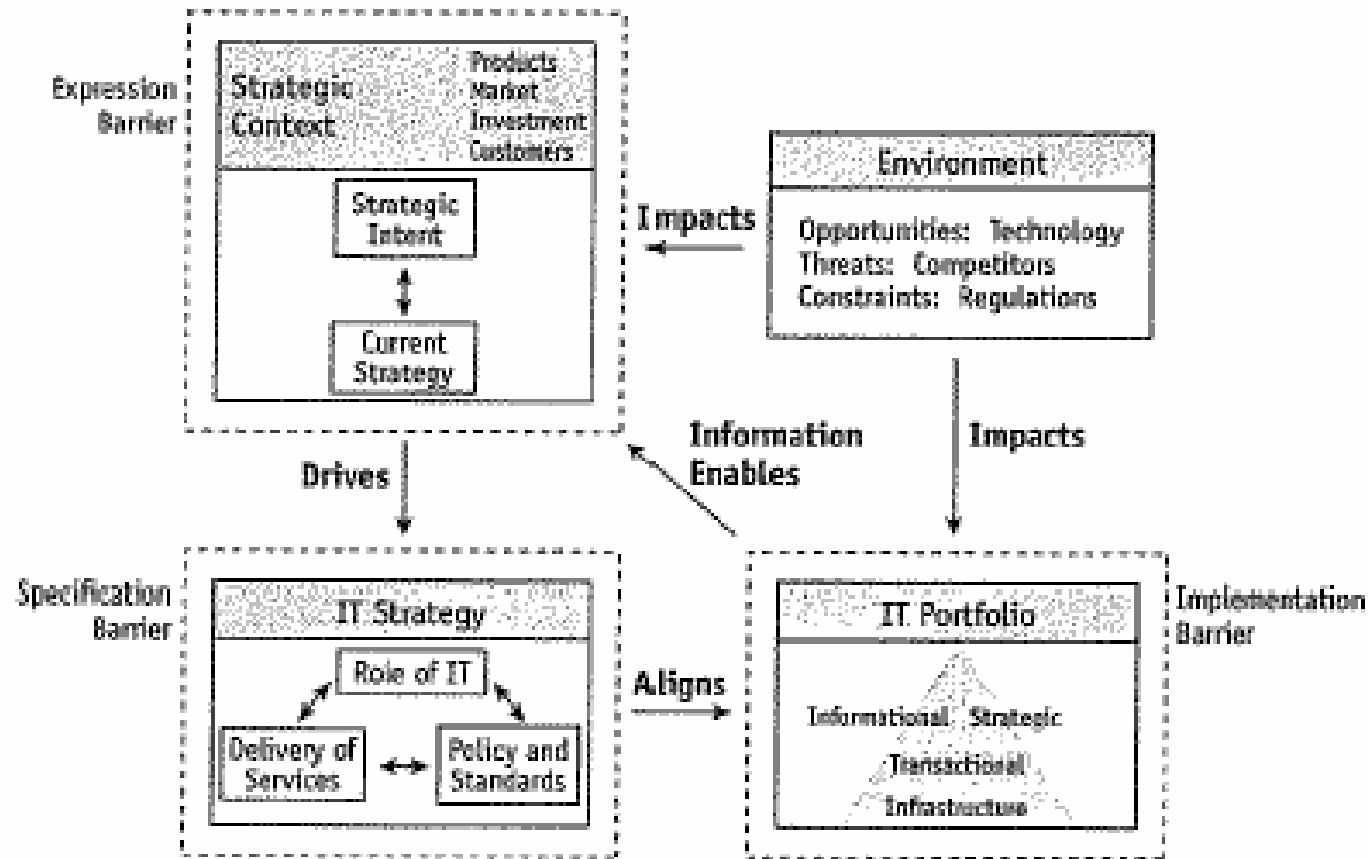


Figure 2.5 Aligning Business Strategy and Information Technology