The Case for Adaptiveness in e-Business:
Innovation Adoption, Economic Scope, and Value Capture
through the Strategy of Sense-and-Respond

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Agenda

1. Major challenges for e-business
   • Innovation Adoption, Economic Scope and Value Capture

2. Network e-conomics and strategic management
   • Strategy, structure, governance

3. Adaptive e-business operating in unpredictability
   • Adapting to customers one-to-one
   • Adapting capabilities to respond to wide range of customer values
   • Coherent purpose and consistent behavior in adaptation
   • Adapting rapidly at large scale over broad scope

4. e-business → change strategic management framework
   • Mental models: e-business as open, adaptive, purposeful social system
   • Failure modes
e-business is about changes in business models

IBM coined the term "e-business" to talk about a broader, more powerful set of changes.

About a new mandate: The requirement to explore -- in every institution in the world -- new models, and either validate them, or discard them.

All kinds of models: business and financial models, new models for the way ideas move across an enterprise, for marketing and distribution, for the way governments deliver services, schools teach and doctors heal.

1. Major uncertainties for e-business ... (page 1 of 5)

Do uncertainties in business ⇒ a different approach to strategy is needed?

- Innovation Adoption
- Economic Scope
- Value Capture

forecast → plan → execute → track

?
1. Major uncertainties for e-business...

The adoption of disruptive innovation by customers is uncertain.

Disruptive innovations:
- Simpler and cheaper ⇒ lower margins
- Interest first in emerging / insignificant markets
- Can't be used or not valued by current (profitable) customers

Source: Clayton Christensen, *The Innovator's Dilemma*

Innovation ...
- not just in technology, but in business designs

Source: Adrian Slywotsky, *Value Migration*
1. Major uncertainties for e-business ...

Economic scope seeks products for customers; economic scale seeks customers for products

Economies of scale ⇒ games against competitors

- unit price vs. return on sales volume vs. volume

Economies of scope ⇒ games with customers

- unit price vs. return on repeat purchase transactions, per customer vs. volume per customer

Source: Peppers & Roger (1993)

Source: Shank, Pine, Victor, Boynton (1993)
Value capture: How do I capture, as profit, a portion of the value I created for customers?

A customer's system economics includes:
- amount paid;
- costs to use, store and dispose;
- hassle

Value migrates from outmoded business designs to new ones that are better able to satisfy customers' most important priorities.

Sources:
Slywotsky, Value Migration;
Slywotsky & Morrison, The Profit Zone
The combination of three major uncertainties → a challenge to traditional strategy management

Innovation
Adoption

Economic
Scope

Value
Capture

“No new theories on which a big business can be built have emerged ... but the old ones are no longer dependable.”

2. Network e-conomics and strategy formation ...

Network e-conomics = information * networks

Physical Assets → Information Assets

value

depletion / depreciation

use

value

accretion

use

Industry Oligarchy → Industry Network

Note: arrows are information flows, not physical flows!

Increasing Returns Casino

Source: Arthur (1996)
2. Network e-conomics and strategy formation ... (page 2 of 3)

Unpredictability $\Rightarrow$ industrial age management fails

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Industrial age strategic management framework</th>
<th>Failure due to unpredictability from network e-conomics</th>
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</table>
| Efficiency | • Predict & Plan  
• Forecast, schedule, build, deliver offers | • Demand / acceptance by customers uncertain  
• React time < market time |
| Structure | Linear Chain of Functional Specialties | Outsourcing / alliances / networks vs. integration  
Customer one-to-one expectation |
| Governance | Command and Control | Knowledge work  
Leaders not omniscient  
Communicate & Hope |

- Efficiency
  - Predict & Plan
  - Forecast, schedule, build, deliver offers
- Structure
  - Linear Chain of Functional Specialties
    - Standard processes
    - Make & Sell
- Governance
  - Command and Control
    - Supervisor and worker
    - Specified "best way", execution, inspection
### Sense-and-respond is an alternative approach to strategy, structure and governance

<table>
<thead>
<tr>
<th>Industry age strategic management framework</th>
<th>Network e-conomics strategic management framework</th>
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<tbody>
<tr>
<td><strong>Strategy</strong></td>
<td><strong>Adaptiveness</strong></td>
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<tr>
<td>Efficiency</td>
<td>Sense &amp; Respond</td>
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<tr>
<td>• Predict &amp; Plan</td>
<td>Know customer value sooner, establish capabilities</td>
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<tr>
<td>• Forecast, schedule, build, deliver offers</td>
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<tr>
<td><strong>Structure</strong></td>
<td><strong>Modular Capabilities, Deployed</strong></td>
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<tr>
<td>Linear Chain of Functional Specialties</td>
<td>Uniquely for Each Customer Request</td>
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<tr>
<td>• Standard processes</td>
<td>Anticipate scope of responses</td>
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<tr>
<td>• Make &amp; Sell</td>
<td>Form determined customer-back</td>
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<td><strong>Governance</strong></td>
<td><strong>Organizational Context and Empowered Coordination</strong></td>
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<tr>
<td>Command and Control</td>
<td>Unambiguous purpose and bounds</td>
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<tr>
<td>• Supervisor and worker</td>
<td>Negotiated outcomes, in customer - supplier cascades</td>
</tr>
<tr>
<td>• Specified &quot;best way&quot;, execution, inspection</td>
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The S&R organization reconfigures customer-back with a unique structure for each response.
The S&R organization designs the breadth of modular capabilities from the range of customer value.

Variability of value across customers:

- **Status**: admiration [recognition]
- **Safety**: wellness [longevity]
- **Comfort**: restfulness [physical mobility]
- **Reliability**: availability [maintenance]
3. Adaptive e-business -- coherency and consistency ... (page 3 of 4)
The S&R enterprise leadership sets organizational context; empowered individuals in roles coordinate

Empowered coordination (with renegotiation pending)

Renegotiated response to unpredictability

primary constituent

Reason-for-Being

High-Level Business Design

Emergent role structure

Governing Principles
The S&R organization achieves speed in scale and scope through three social-technological learning subsystems.
A value-producing e-business adapts as an open, extended enterprise system of multiple organizations.
Can an e-business systematically adapt without a change in the strategic management framework?