MATCHING INTERNAL AND EXTERNAL ECOCLOGICAL DYNAMICS: THE ROLE OF THE STRATEGY-MAKING PROCESS FOR ORGANIZATIONAL LONGEVIY

ROBERT A. BURGelman
Stanford Graduate School of Business

OVERVIEW

I. Foundational Theoretical Sources
II. Foundational Methodological Sources
III. Discovering and Resolving Anomalies
- A process model of internal corporate venturing
IV. An Evolutionary Framework of the Strategy-Making Process
- Reconsidering the "punctuated equilibrium" view of org. change
- Intel's transformation from memory to microprocessor company
- Fundamental proposition about corporate transformation
- Strategy as vector and coevolutionary lock-in
V. Dynamic Forces Driving Firm Evolution
- The role of the internal section environment
VI. Three Tools of an Evolutionary Lens on Strategy-Making
VII. A Framework of Strategic Dynamics
- Matching strategy processes and strategic dynamics situations
VIII. Cross-Boundary Disruptors

I. Foundational Theoretical Sources
1. 1968-69:
   "Optimal Firm Size From the Perspective of Business Economics"
2. 1970-72:
   *Strategic Investment in Business from the Viewpoint of Organizational Decision-Making*, *Ekononisch en Sociaal Tijdschrift*, December 1971 (review article with A. van Cauwenbergh)
3. 1978-1980:
4. Early 1980s:
   - Howard Aldrich, *Organization and Environments*, 1979
   - Michael Hannan and John Freeman, "Structural Inertia and Organizational Change," *ASR*, 1984

II. Foundational Methodological Sources
1. Principles of "Grounded Theorizing" (Glaser and Strauss, 1967):
   - comparative case analysis
   - substantive and formal theory
2. The "Process Model" Research Approach (Joseph Bower):
   - sequentiality and simultaneity of strategic action
3. "Degrees of Freedom and the Case Study" (Donald Campbell, 1975):
   - Using case study research to test theory
   - Continuities (patterned) and contingencies (non-patterned)
   - "Particular generalization"
   - "Interdependent" variables
   - "Context" as the dependency of sufficient causes upon necessary ones
   - "Similarity across scale"
III. Discovering and Resolving an Anomaly

1. Mid-1970s – Received Theory = Chandler's (1962) fundamental proposition:
   - “Structure follows strategy” in major U.S.-based corporations

2. Mid-1970’s – Field Research Findings Concerning Internal Corporate Venturing:
   - New Venture Division created after many new ventures had already sprung up in various operating divisions of a U.S. diversified major firm, and before a corporate diversification strategy had been formulated.

3. Implication – Need to amend Chandler’s fundamental proposition:
   - “Strategy follows strategic behavior” in internal corporate venturing

4. How to model this?
   - Attempt to use Bower’s (1970) “process model of resource allocation”

5. Problem:
   - Complete set of managerial activities (Sayles, 1964) involved in ICV cannot be mapped onto the received process model

6. Solution (after several months of intellectual struggle):
   - Introduce “strategic context determination” as part of the process model, thereby generalizing it so as to be able to map activities that change the corporate strategy.

IV. An Evolutionary Framework of the Strategy-Making Process in Established Firms

1. Revisiting Chandler:
   - “At du Pont, General Motors, and Jersey Standard, the initial awareness of the structural inadequacies caused by the new complexity came from executives close to top management, but who were not themselves in a position to make organizational changes. In all cases, the president gave no encouragement to the proposers of change.” (1962, p. 308, emphasis provided).

2. Revisiting Penrose:
   - “In the last analysis, the ‘environment’ rejects or confirms the soundness of judgments about it, but the relevant environment is not an objective fact discoverable before the events. (1968, p. 41)

3. Revisiting Bower (Bower and Doz, 1979):
   - “Thus, in contrast to strategy formulation as the critical direction-setting general management activity, this new process school of research suggested an alternative, that is, the strategic process (p. 158)

4. Revisiting Weick (1969) and learning about Aldrich (1979):
   - The role of variation, selection and retention in organizational evolution

5. Hannan and Freeman (1977, 1984) pose a fundamental challenge to the role of strategy:
   - “Organizational ecology perspective: at the population level of analysis, organizational change is the result of replacement and selection, not adaptation

6. Integrating strategy and ecology through the idea of the “internal ecology of strategy-making”
   - Analogously to the population-level change driven by founding and disbanding rates, companies can continue to adapt and survive to the extent that their internal ecology of strategy-making allows them to start into new businesses and exit from losing ones over time.

IV. An Evolutionary Framework of the Strategy-Making Process in Established Firms

Reconsidering the “Punctuated Equilibrium” View of Organizational change:

- Using a single case study to test theory - Campbell’s View:

  “In a case study done by an alert social scientist who has thorough local acquaintance, the theory he uses to explain the focal difference also generates predictions or expectations on dozens of other aspects of the culture, and he does not retain the theory unless most of these are also confirmed. In some sense, he has tested the theory with degrees of freedom coming from the multiple implications of any one theory.”

- Example: The punctuated equilibrium and the internal ecology models of strategy making - Intel’s strategic transformation


IV. An Evolutionary Framework of the Strategy-Making Process in Established Firms

Fundamental Proposition of Corporate Transformation:

The population of firms with successful corporate transformations will contain a significantly higher proportion of firms whose transformation was preceded by internal experimentation and selection processes than the population of firms with failing transformations.


Table 1: Percentage of Developmental Resources Allocated to Induced and Autonomous Strategy Processes at Critical Times in Intel’s Evolution*

<table>
<thead>
<tr>
<th>Year</th>
<th>Induced (I)</th>
<th>Autonomous (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976²</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>1984³</td>
<td>65</td>
<td>35</td>
</tr>
<tr>
<td>1989³</td>
<td>66</td>
<td>34</td>
</tr>
<tr>
<td>1991⁴</td>
<td>87</td>
<td>13</td>
</tr>
<tr>
<td>1998-2001⁵</td>
<td>65</td>
<td>35</td>
</tr>
<tr>
<td>2003⁶</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>2005⁶</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

* As estimated by A.S. Grove, based on personal experience and company documents

² I = memory related; A = microprocessor related
³ I = x86 microprocessor related; A = non-x86 (RISC) microprocessor related
⁴ I = x86 microprocessor related; A = non-x86 (RISC) microprocessor related
⁵ I = x86 microprocessor business related; A = related to networking and communications businesses
⁶ I = pure microprocessor business related; A = platform-business related (including Centrino)

V. Dynamic Forces in Firm Evolution*

VI. Three Tools of An Evolutionary Lens on Strategy-Making*

VII. A Framework of Strategic Dynamics*
VII. Matching Induced and Autonomous Processes to Strategic Dynamics Situations

<table>
<thead>
<tr>
<th>Limited Industry Change</th>
<th>Linear and Stable (Base Case)</th>
<th>STRATEGIC DYNAMICS SITUATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear and Stable</td>
<td>Linear and Stable</td>
<td>STRATEGIC DYNAMICS SITUATIONS</td>
</tr>
<tr>
<td>P-Independent Industry</td>
<td>P-Independent Industry</td>
<td>P-Independent Industry</td>
</tr>
<tr>
<td>Change</td>
<td>Change</td>
<td>Change</td>
</tr>
<tr>
<td>Linear and Stable</td>
<td>Linear and Stable</td>
<td>Linear and Stable</td>
</tr>
<tr>
<td>Nonlinear and Disruptive</td>
<td>Nonlinear and Disruptive</td>
<td>Nonlinear and Disruptive</td>
</tr>
<tr>
<td>Runaway Industry change</td>
<td>Runaway Industry change</td>
<td>Runaway Industry change</td>
</tr>
<tr>
<td>Linear and Stable</td>
<td>Linear and Stable</td>
<td>Linear and Stable</td>
</tr>
<tr>
<td>Nonlinear and Complex</td>
<td>Nonlinear and Complex</td>
<td>Nonlinear and Complex</td>
</tr>
<tr>
<td>Nonlinear and Chaotic</td>
<td>Nonlinear and Chaotic</td>
<td>Nonlinear and Chaotic</td>
</tr>
</tbody>
</table>

**Induced Strategy Process**
- Serves to maintain core business opportunities
- Key: Serves to establish new growth opportunities by ‘vectoring’ the organization in one new strategic direction
- Key: Serves to maintain the sustainability of core business growth opportunities
- Key: Serves to develop new business capabilities consistent with distinctive competencies in anticipation of new strategic opportunities

**Autonomous Strategy Process**
- Serves to ensure a marginally re-balanced support of both processes
- Key: Serves to develop new growth opportunities consistent with distinctive competencies in anticipation of new strategic opportunities
- Key: Serves to commit resources to winning new growth opportunities in autonomous process
- Key: Serves to continue to explore potential new growth opportunities

**Implications for Resource Allocation**
- Wait and see: Serves to maintain core business opportunities while waiting to bet
- Key: Serves to continue to explore potential new growth opportunities consistent with distinctive competencies in anticipation of new strategic opportunities
- Key: Serves to develop new opportunities consistent with distinctive competencies in anticipation of new strategic opportunities
- Key: Serves to develop new opportunities consistent with distinctive competencies in anticipation of new strategic opportunities

**VIII. How Change Propagates Throughout an Industry – Cross-Boundary Disruptor Case**

Start-up appears; tries to change environment for incumbent businesses

Triggers successful defensive reaction in incumbents; start-ups fail

XBD is attracted; enters; triggers further defensive reaction in incumbents

Fast adaptors emerge: have competitive advantage in new industry environment; reinforce impact of XBD

Changes continue and lead to new industry structure


Thank you!