Reflections on Nelson & Winter, 1982

Johann Peter Murmann
Australian School of Business
&
Wharton

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Three Tasks

1. Establishing the influence of Nelson & Winter (1982) with a simple citation analysis

2. Trying to reconcile the goals of industrial organization economics (IO) and strategic management (SM)

3. Calling for more studies to determine the relative role of population level selection processes versus firm level adaptations in industrial change
Citation Analysis

Dick Nelson and Sid Winter are rock stars!

Here is the Proof
Picture of Nelson & Winter in the 1960s
Citation Analysis

Average number of *Web of Science* citations to any of the 6 articles in the Strategic Management Journal 1982, No. 4

78.5

Citations per year since publication

2.62
Citation Analysis

Average number of *Web of Science* citations to any of the 21 articles in the American Economic Review 1982, No. 5

73

Citations per year since publication

2.43
Citation Analysis

Total *Web of Science* to Nelson & Winter, 1982

5895

Citations per year since publication

196.50
Comparative Citation Analysis for N&W 1982

Average Number of Citations per year since publication

Nelson & Winter, 1982: 196.50
Average Article in SMJ 1982, No. 4: 2.62
Average Article in AER 1982, No. 5: 2.43
Comparative Citation Analysis for N&W 1982

- Nelson & Winter, 1982: 5895 citations
- Cohen & Levinthal, 1990: 4411 citations
- Teece, Pisano, Shuen, 1997: 3110 citations
- Tushman & Anderson, 1986: 1304 citations
- Tushman & Romanelli, 1985: 680 citations
- Helfat & Peteraf, 2003: 384 citations

Average Article in SMJ 1982, No. 4: 78.5 citations
Average Article in AER 1982, No. 5: 73 citations

Total Number of Citations since publication
Comparative Citation Analysis for N&W 1982

Average Number of Citations per year since publication

- Teece, Pisano, Shuen 1997: 207.33
- Cohen & Levinthal, 1990: 200.50
- Nelson & Winter, 1982: 196.50
- Tushman & Anderson, 1986: 50.15
- Helfat & Peteraf, 2003: 42.67
- Tushman & Romanelli, 1985: 25.19
- Average Article in SMJ 1982, No. 4: 2.62
- Average Article in AER 1982, No. 5: 2.43
Comparative Citation Analysis of Evolutionary Economics & Transaction Cost Economics

Average Number of Citations per year since publication
Comparative Citation Analysis of EE & TCE

Growth in Average Number of Citations per year since 2001

Nelson & Winter, 1982 (2001-2012) - 1.8
Williamson 1985 (2001-2012) - 1.5
Summary

Their 1982 book made Nelson & Winter the Academic Equivalent of Rock Stars
Task 2: Reconciling Industrial Organization (IO) Economics and Strategic Management (SM)

There is a tension between the goals of IO economics and strategic management

- IO Economics fundamentally wants to prevent firms from making large profits at the expense of consumers.
- The field of strategy tries to help managers make large profits and create a sustainable competitive advantage
Creating & Capturing Value

CREATE VALUE

Cost

Value

CAPTURE VALUE

Focal Firm

Consumers

Suppliers

Competitors

Complementors
Sustaining Competitive Advantage by Capturing Value more value at the expense of consumers
Sustaining Competitive Advantage by Capturing Value more value at the expense of consumers
Resolving tension between IOE and SM by increasing pie for firm and consumers.
What is the key way to decrease cost or increase value added?

Innovation
Task 3: Calling for more studies on the relative role of selection versus adaptation

1. Individual firm adaptation logic of industry change
2. Population selection logic of industrial change
An Adaptation Process of Change

Population of Firms at Time 1

Heroic Managers

Population of Firms at Time 2

- Standard Firm
- Firm with Informal R&D
- Firm with Formal R&D
Industrial Change: A Selection Process

Population of Firms at Time 1

Population of Firms at Time 2

Selection Filter

- e.g. Profits

- Standard Firm
- Firm with Informal R&D
- Firm with Formal R&D
## Industry Demography 1857-1914

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Firm Entries</th>
<th>Number of Firm Exits</th>
<th>Firm Failure Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>118</td>
<td>94</td>
<td>80%</td>
</tr>
<tr>
<td>France</td>
<td>68</td>
<td>57</td>
<td>83%</td>
</tr>
<tr>
<td>Britain</td>
<td>53</td>
<td>43</td>
<td>81%</td>
</tr>
<tr>
<td>United States</td>
<td>28</td>
<td>18</td>
<td>64%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>32</td>
<td>26</td>
<td>81%</td>
</tr>
</tbody>
</table>

Source: Murmann (in Advance) @ Organization Science
How much Adaptation versus Selection is there in Industrial Change?

50%
How much Adaptation versus Selection is there in Industrial Change?

Only Adaptation

Only Selection

75 / 25 %
How much Adaptation versus Selection is there in Industrial Change?

Only Selection

25 / 75 %

Only Adaptation
Firms try to make changes but often still don’t survive.

"Trying to become a different type of company: dynamic capability at Smith Corona."
Henderson et al. published a list of firms that have sustainable competitive advantage.

Let’s figure out what these firms did differently from their less successful counterparts!

I will post this presentation on [http://economic-evolution.net](http://economic-evolution.net)
Encore: Total cites to Nelson & Winter (1982)