



# Reflections on Nelson & Winter, 1982

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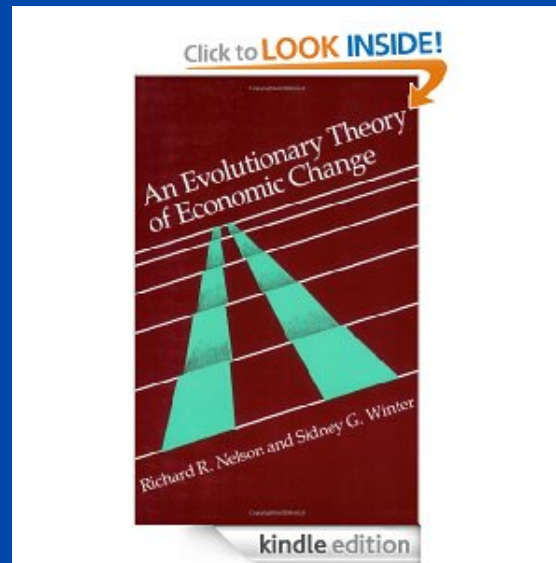
Wharton

*Presented at the Atlanta Competitive Advantage Conference, May 15, 2012*

## 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

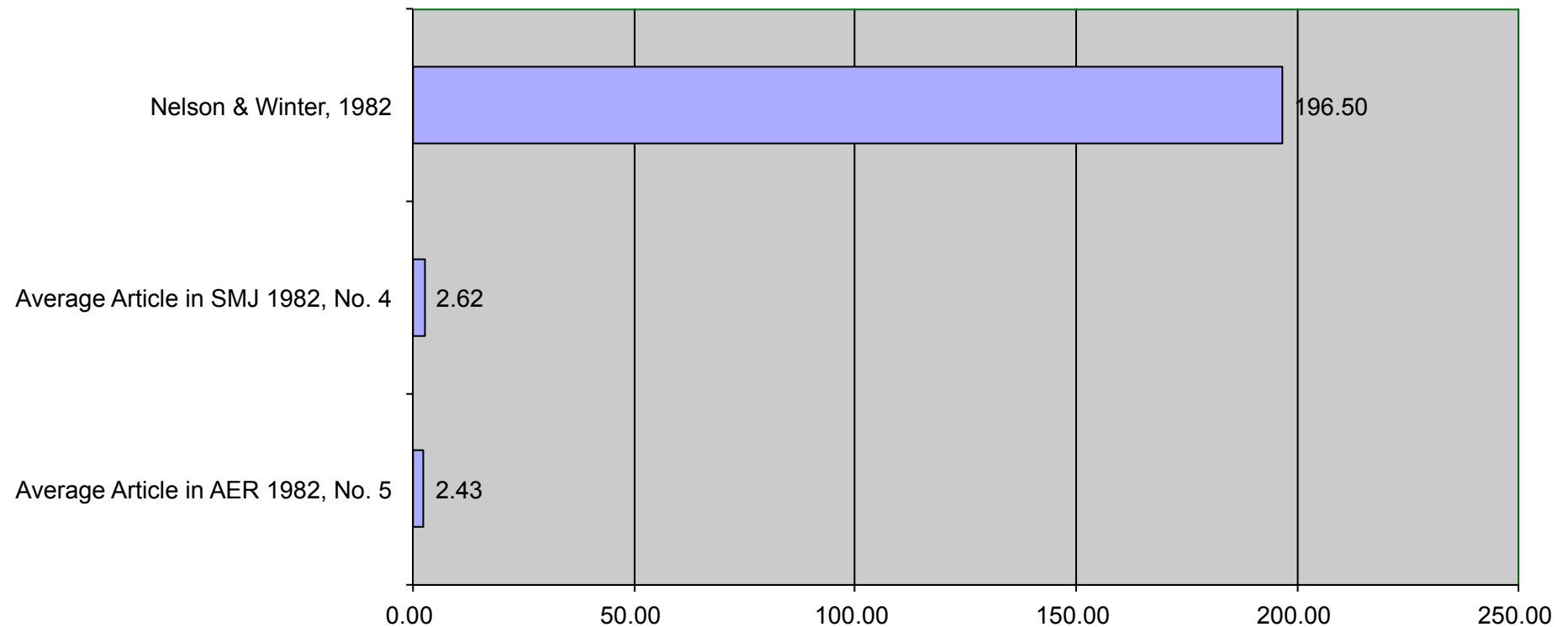
Total *Web of Science* to Nelson & Winter, 1982

5895

Citations per year since publication

196.50

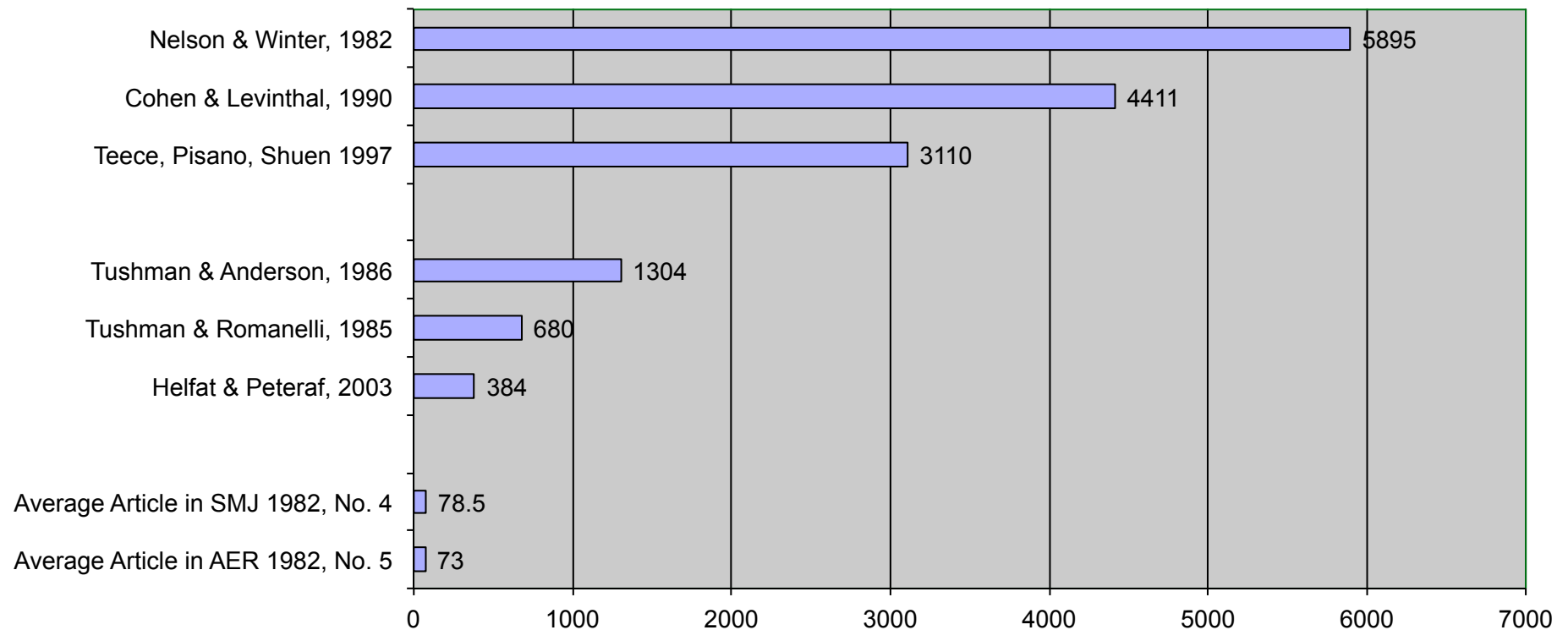
# Comparative Citation Analysis for N&W 1982



**Average Number** of Citations per year since publication

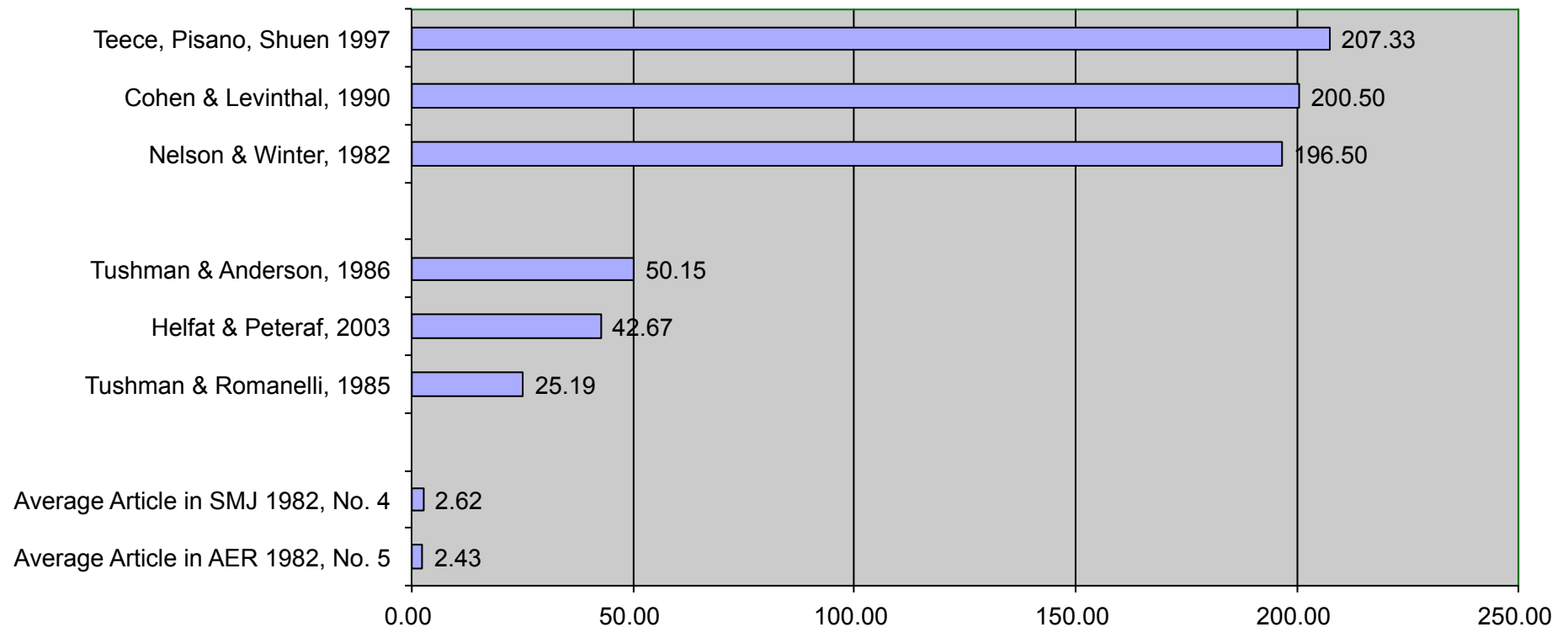


# Comparative Citation Analysis for N&W 1982



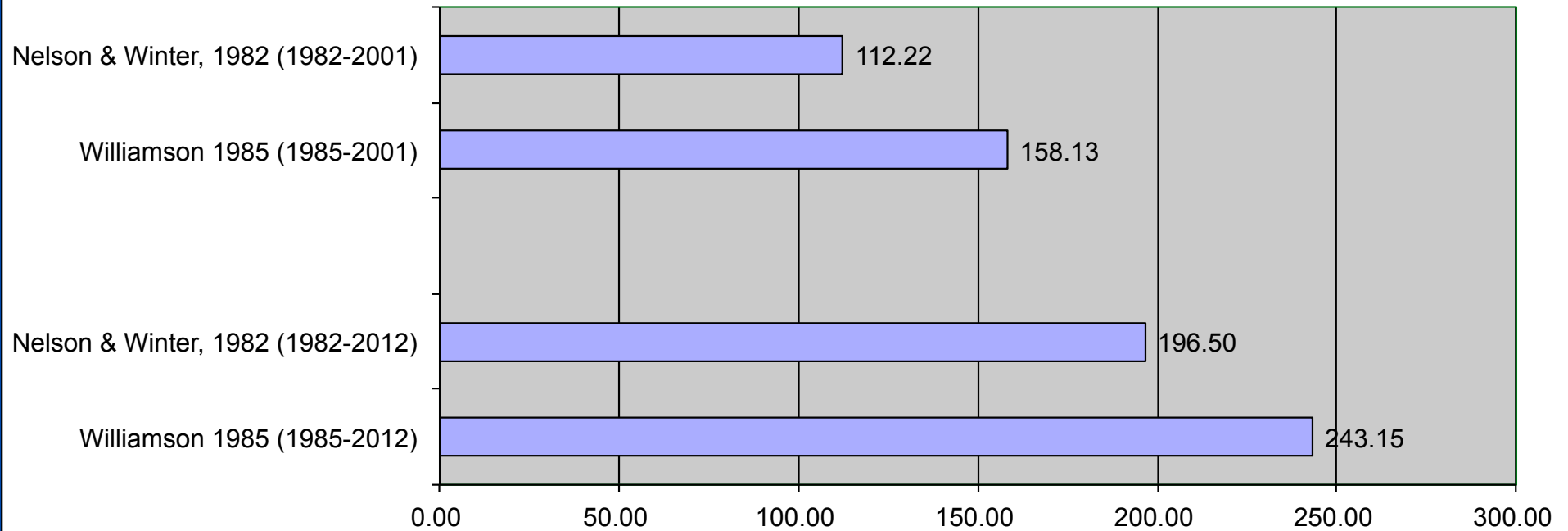
**Total Number** of Citations since publication

# Comparative Citation Analysis for N&W 1982



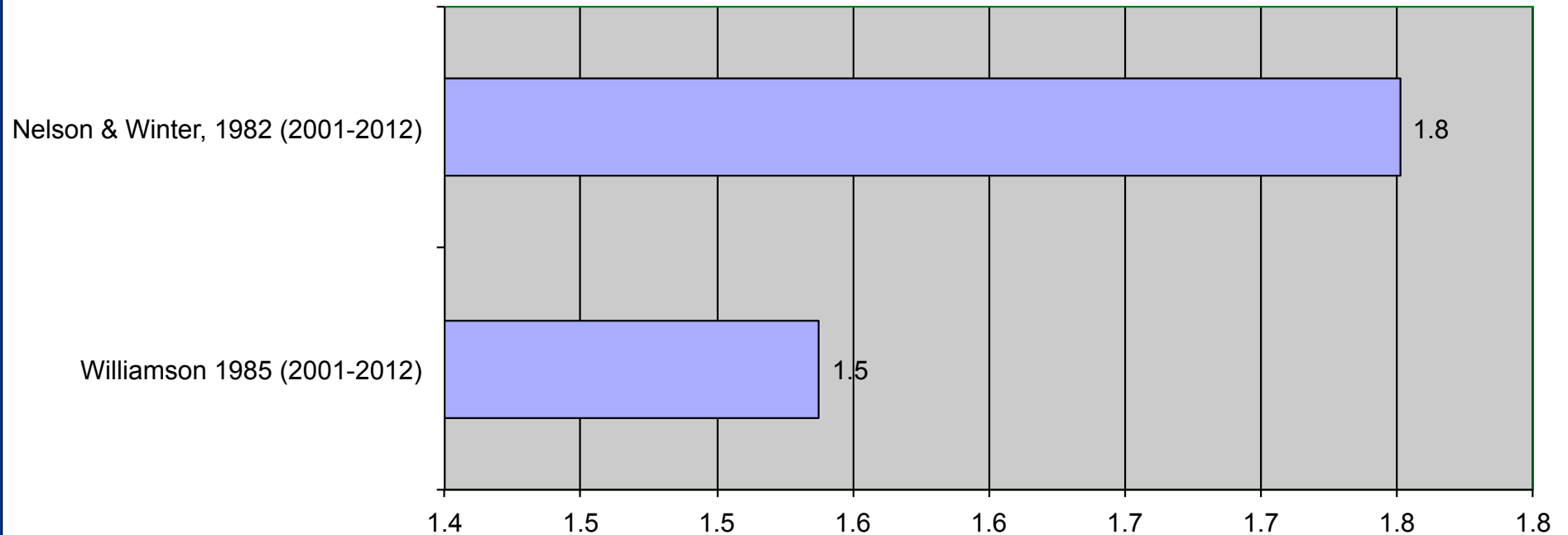
**Average Number** of Citations per year since publication

# 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

# Summary

**Their 1982 book made Nelson & Winter  
the Academic Equivalent of Rock Stars**



## **Task 2: Reconciling Industrial Organization (IO) Economics and Strategic Management (SM)**

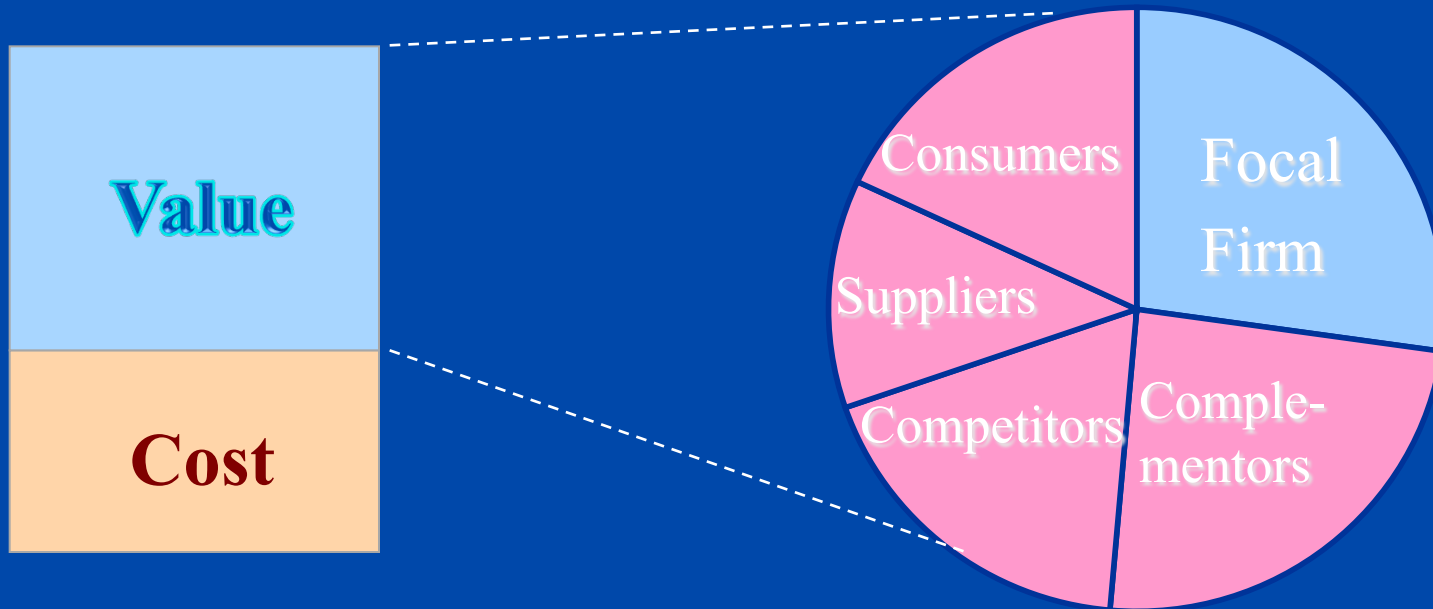
*There is a tension between the goals of IO economics and strategic management*

- 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

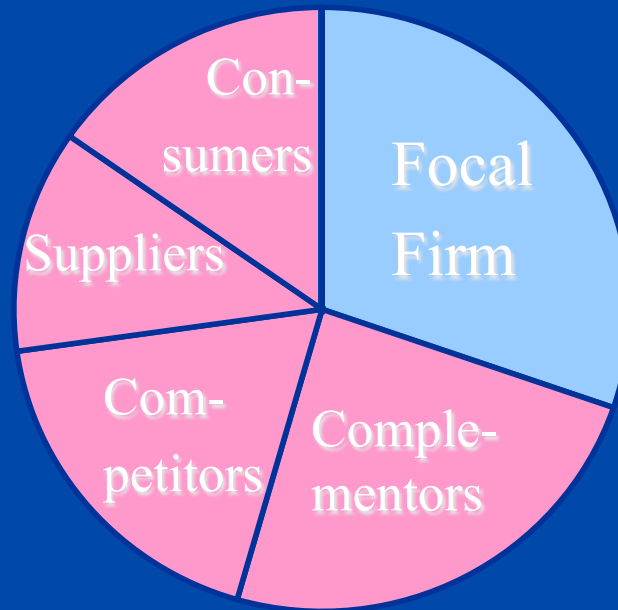
# Creating & Capturing Value

CREATE VALUE

CAPTURE VALUE

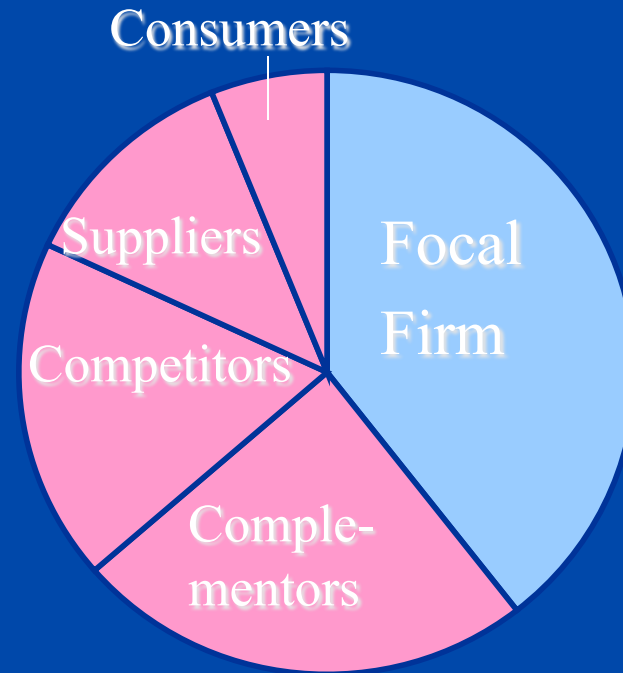


# Sustaining Competitive Advantage by Capturing Value more value at the expense of consumers

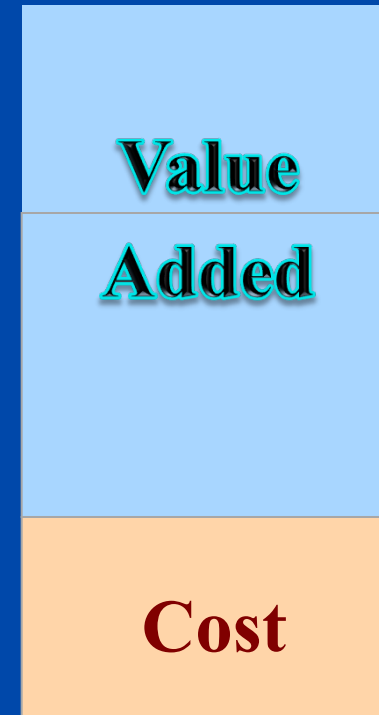




# Sustaining Competitive Advantage by Capturing Value more value at the expense of consumers

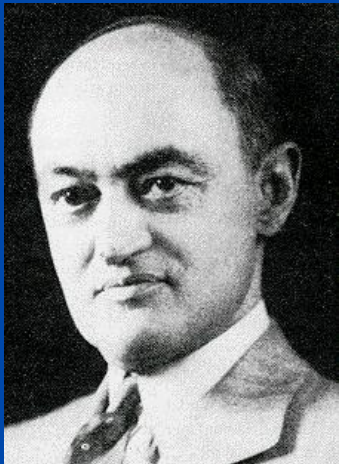


# Resolving tension between IOE and SM by increasing pie for firm and consumers



**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**

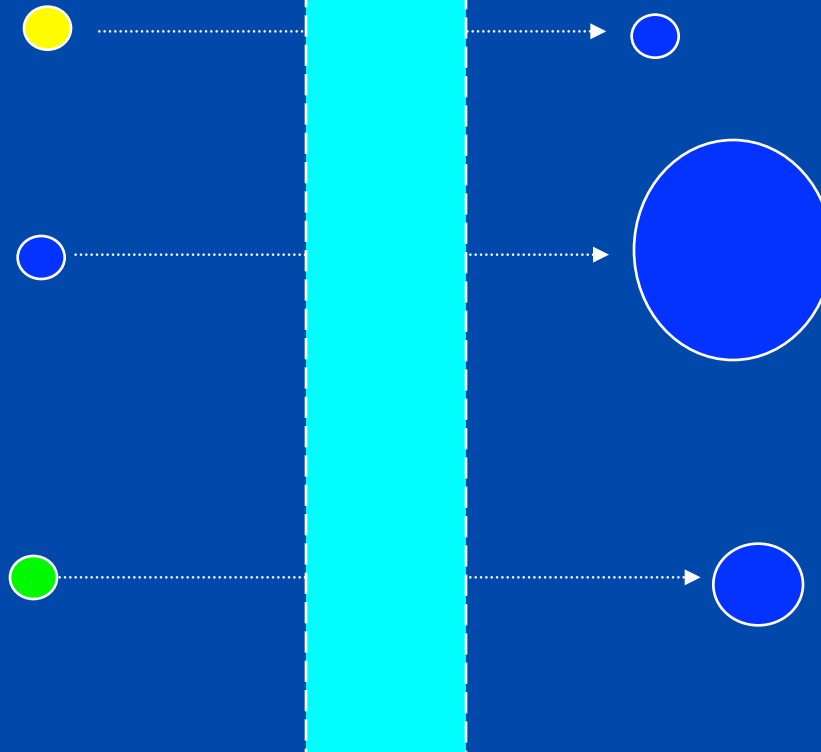
1. Individual firm adaptation logic of industry change
2. Population selection logic of industrial change

# An Adaptation Process of Change

Population of Firms at Time 1

Heroic  
Managers

Population of Firms at Time 2



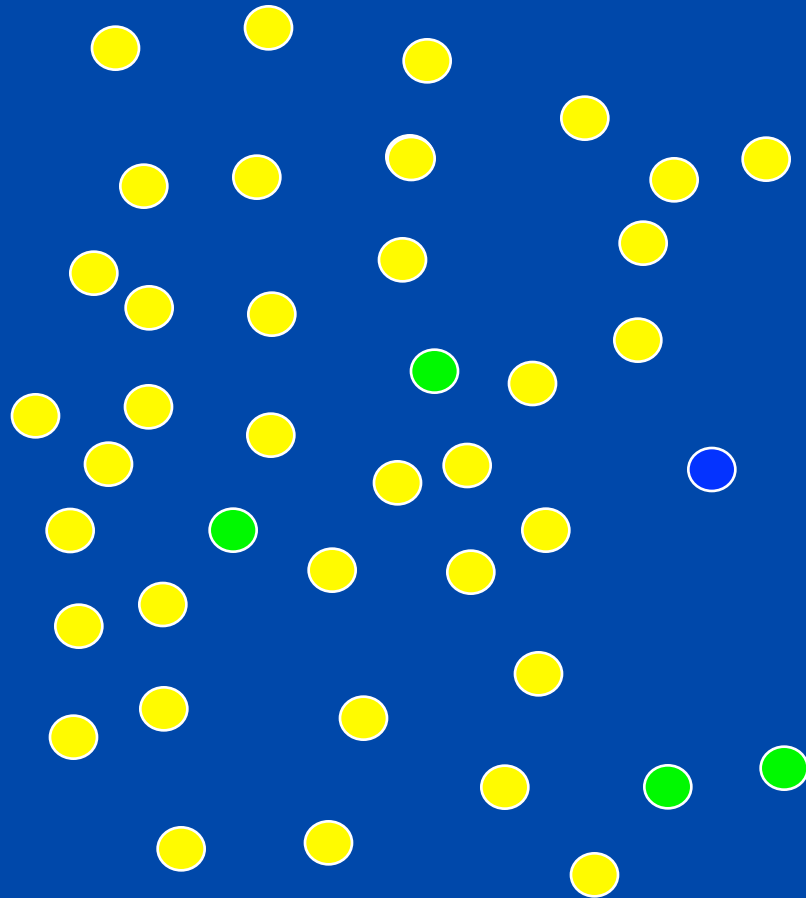
● Standard Firm

● Firm with Informal R&D

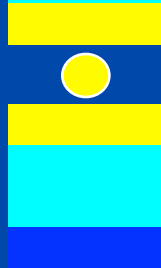
● Firm with Formal R&D

# Industrial Change: A Selection Process

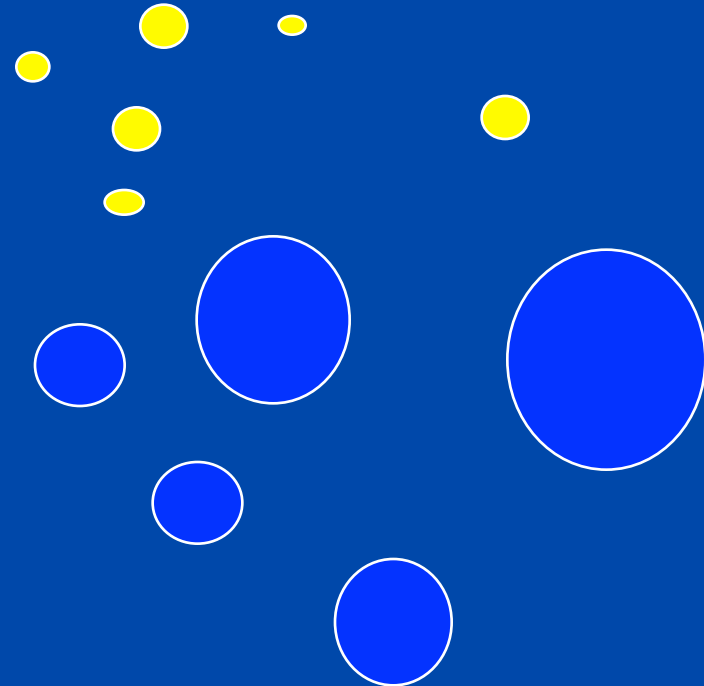
Population of Firms at Time 1



Selection  
Filter



Population of Firms at Time 2



● Standard Firm    ● Firm with Informal R&D    ● Firm with Formal R&D

# Industry Demography 1857-1914

	Number of Firm Entries	Number of Firm Exits	Firm Failure Rates
Germany	118	94	80%
France	68	57	83%
Britain	53	43	81%
United States	28	18	64%
Switzerland	32	26	81%

Source: Murmann (in Advance) @ Organization Science

# How much Adaptation versus Selection is there in Industrial Change ?

**Only  
Selection**

**Only  
Adaptation**



50 %



# How much Adaptation versus Selection is there in Industrial Change ?

**Only  
Selection**

**Only  
Adaptation**



75 / 25 %

# How much Adaptation versus Selection is there in Industrial Change ?



# Firms try to make changes but often still don't survive.



Danneels, E. (2011).

"Trying to become a different type of company: dynamic capability at Smith Corona."

Strategic Management Journal 32(1): 1-31.

# Henderson et al published list firms that have sustainable competitive advantage

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



Henderson, A. D., M. E. Raynor and M. Ahmed (2012).

"How long must a firm be great to rule out chance?  
Benchmarking sustained superior performance without  
being fooled by randomness."

Strategic Management Journal 33(4): 387-406.

I will post this presentation on <http://economic-evolution.net>

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**March 26, 2012: New Work on Coevolution**  
Johann Peter Murmann has published an inductive case study entitled *Coevolution of Industries and Important Features of Their Environments*. Using a comparative historical method and drawing on evidence from five countries over a 60-year period, this paper spells out how coevolutionary processes work in shaping the evolution of industries and important features of their environments. Read the abstract and [download paper here](#).



**Jan 26, 2012 Emerging Scholar Workshop: Evolutionary Perspectives on Strategic Management**  
The Mack Center for Technological Innovation at the Wharton School will put on a new week-long workshop for emerging scholars in the field. The workshop is designed for scholars ranging from students who are completing the second year of doctoral studies to those who have recently completed a doctorate. Participants will learn from leading scholars in the field. The program will consist of a mix of seminar discussion and short presentations by participants reflecting their research interests and reactions to the seminar discussions. The program will begin on Sunday, June 24th and end on Friday June 29th. Each day will consist of a three-hour workshop led by an individual faculty member on the indicated

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## Encore: Total cites to Nelson & Winter (1982)

