

PIMS: PROGRAM IN INNOVATION MANAGEMENT AND INNOVATION STRATEGY

NTNU- TRONDHEIM

NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Henry Chesbrough, UC Berkeley Haas School of Business, and Esade Business School

Summer 2013

Executive Session: Understanding and Mastering Open Innovation

During this morning seminar, we will first develop an understanding of open innovation, based on its evolution from an earlier model of closed innovation (which one can think of as end-to-end, vertically integrated innovation under the control of a single firm). We will then explore numerous examples of open innovation in a variety of industry contexts, and apply it to the participants' own industries.

We will then review evidence of the extent of open innovation adoption in Europe and the US, explore barriers to its effective use, and how to address those barriers. We will also consider the role of the business model in open innovation, and how open innovation applies in service businesses.

For each session, read the assigned article, and consider the questions below each session, in order to prepare for class discussion.

9:00 – 10:00

First Session – Open Innovation in Theory and Practice :

1. H. Chesbrough, 2003. "The Era of Open Innovation", MIT Sloan Management Review.

Questions:

1. Traditionally, where have most innovations come from in your company? In your industry?
2. What opportunities do you see to enhance the effectiveness of your innovation process?
3. How do you measure the effectiveness of your innovation process?

10:00 – 10:45

Second Session: Open Innovation Adoption and Barriers

2. H. Chesbrough and S. Brunswicker, 2013. Report on Survey of Adoption of Open Innovation in Large Firms in Europe and the US.

Questions:

1. To what extent has your company adopted open innovation?
2. What barriers have you encountered in using open innovation?
3. How are you addressing those barriers?

10:45 – 11:00 BREAK

11:00 – 12:30

Final Session: Business Models and Services in Open Innovation

3. H. Chesbrough, 2012. Open Innovation: Where We've Been and Where We are Going, Research-Technology Management.

Questions:

1. How would you describe the business model of your company?
2. What processes do you use to innovation your business model?
3. To what extent are you incorporating services into your business model?
4. How do you innovation your services offerings?

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Anomalies and Appropriability – Setting the Stage for Open Innovation

You will have just finished a thorough review of the innovation literature with Professor Michael Tushman, one of the most celebrated innovation scholars in the field. What more is there to be said?

Well, innovation is an inherently protean area to study. Since innovation is fundamentally about change, and since organizations mimic and eventually learn to adopt more effective practices and drop less effective ones (or go out of business if they fail to so adapt), there will never be a Last Word in this field.

So in our afternoon session, we will explore what I regard as anomalies in the innovation literature: empirical phenomena that do not seem to fit our theories of innovation. We will then move to consider the question of appropriability (whether and how an individual or organization can profit from its innovation investments). It was my own reflection on these questions that led me to develop the concept of Open Innovation. While you will come to your own conclusions, I hope that you will find the journey as exciting as I did. Finally, we will try to apply these theories in a real-time situation that is currently unfolding in an industry all of us know rather well.

13:30 – 15:00

First Session – Innovation Anomalies:

1. H. Chesbrough, 2001. “Assembling the Elephant: A Review of Empirical Studies on the Impact of Technical Change upon Incumbent Firms”, in Research on Technological Innovation, Management, and Policy, vol. 7, JAI Press, 2001, R. Burgelman and H. Chesbrough, editors; pages 1-36
2. H. Chesbrough, 2003. “Environmental Influences upon Firm Entry into New Sub-Markets: Evidence from the Worldwide Hard Disk Drive Industry”, Research Policy, vol.32 (4), 2003: 659-678

3. H. Chesbrough, 2001. "The Modularity Trap: Innovation, Technology Phase-Shifts and the Resulting Limits of Virtual Organizations", with Ken Kusunoki, in Ikujiro Nonaka and David Teece, Managing Industrial Knowledge, Sage Publications, 2001
4. H. Chesbrough, 2003. "Introduction", in Open Innovation: The New Imperative for Creating and Profiting from Technology, Harvard Business School Press, 2003

Note: The first three papers are academic in character, while the fourth is more managerial. All, however, contain fairly detailed descriptions of anomalous empirical results that (at least in my judgment) are at variance with the leading theories of innovation you discussed with Professor Tushman. To prepare for discussion, first write down the anomalies you find from these readings. Then identify the "expected" empirical result that theory would have predicted. Finally, consider what changes to theory you would need to make, in order to explain these results.

15:00 – 15:15 Break

15:15 – 16:30

Session 2: Appropriability – if an organization cannot obtain a profit from its innovation activities, it cannot sustain them economically over time. In this session, we consider the conditions under which a pioneering innovator is able to appropriate enough value to sustain its innovation activities.

5. D. Teece, 1986. "Profiting from Innovation", *Research Policy*, Volume 15, Issue 6, December 1986, Pages 285–305
6. E. von Hippel and G. von Krogh, 2006. "Free revealing and the private-collective model for innovation incentives", *R&D Management*, Volume 36, Issue 3, pages 295–306, June 2006
7. H. Chesbrough and R. Rosenbloom, 2002. "The Role of the Business Model in Capturing Value from Innovation: Evidence from Xerox Corporation's Technology Spinoff Companies", Industrial and Corporate Change, 2002, vol. 11 (3): 529-555
8. H. Chesbrough, "The Business Model – Connecting Internal and External Innovation", chapter 4, in Open Innovation: The New Imperative for Creating and Profiting from Technology, Harvard Business School Press, 2003

16:30 – 17:30

Session 3: Testing Innovation Theory with Practice: Today's Mobile Phone Industry

Theory is only useful if it helps us understand complex phenomena, and perhaps take action based on our deeper understanding. So in this final session, we are going to apply the theories you studied with Professor Tushman and with me to the mobile phone industry. In particular, we will consider the positions of Apple, Google, Microsoft, Nokia, Samsung and Research in Motion (Blackberry). Each of you has considerable knowledge of these companies already. Below are a couple of links to use as background to start our discussion:

9. Nokia's Bad Call on Smart Phones:

<http://online.wsj.com/article/SB10001424052702304388004577531002591315494.html>

10. This Data From China Shows Why Apple Is Now Getting Its Butt Kicked In The Smartphone Market: <http://www.businessinsider.com/china-smartphone-market-low-price-phones-2012-11>

What innovation theories explain the success and failure of key participants in the mobile phone market over the past 5 years? Based on theory, who is in the strongest position going forward? What issues will each of the major players face, based on our innovation theories? What actions can these leaders take to address these issues?