

Managing the Innovation Process

Inter-Organizational Networks

Overview

- Take-Away
- Required Readings
- Supplemental Readings
- Caveats

Take-Away

- Innovation may benefit from a more open process
- Innovation can be sparked by knowledge brokers
- Innovation often resides in networks of firms
- Innovation is one product of strategic alliances

(Wolpert, 2002)

- *“Breaking out of the innovation box”*
- Open Innovation Will Be More Sustainable In Long Run
(investment in innovation follows boom-bust cycle)
- Network Of Intermediaries
(third-party companies that facilitate exchange of information)
- Intermediary Candidates
(IBM alphaWorks, Xerox alphaAvenue, baby boomer retirees)

(Hargadon, 1998)

- *“Firms as knowledge brokers: Lessons in pursuing continuous innovation”*
- Knowledge Brokers
(firms that span multiple markets and technology domains)
- Example Firms
(IDEO, Design Continuum, Andersen, McKinsey & Co., HP, Boeing, Edison & Co., Elmer Sperry)
- Innovation Activities
(access, learning, linking, implementation)

(Ahuja, 2000)

- *“Collaboration networks, structural holes, and innovation: A longitudinal study”*
- Innovation Through Patents
(international chemicals industry)
- Direct/Indirect Ties Positively Related to Innovation
(source of resources and information for firm)
- Structural Holes Negatively Related to Innovation
(benefits of trust outweigh benefits of brokerage)

(Powell, et al., 1996)

- *“Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology”*
- Locus Of Innovation Resides In Networks Rather Than Firms
(biotechnology industry)
- Network Examples
(R&D, outside investors, clinical trials/evaluation, manufacturing, marketing/licensing, supply/distribution, investment/join venture)
- Experience And Centrality In Network Related To Success
(relevant knowledge is widely distributed – outside of firm)

(Stuart, 1998)

- *“Network positions and propensities to collaborate: An investigation of strategic alliance formation in a high-technology industry”*
- Positions Of Firm Associated With Propensity to Collaborate
(high-technology industry)
- Strategic Alliances
(contractual asset pooling or resource exchange agreements)
- Formation Of Alliances Predicted By:
(crowding – technological segments with many active firms)
(prestige – track record of developing seminal inventions)

Caveats

- What are the incentives for firms to open innovation?
- When do knowledge brokers obstruct innovation?
- How do firms know which network ties will help?
- Are benefits from strategic alliances always equitable?