Collaboration Strategies

The question posed

- **Whether to perform activities in house or with partners is a difficult decision** for firms but the reality is that a significant portion of innovation comes from the collaborative efforts of multiple individuals or organizations.
- Collaboration requires the firm to **relinquish some degree of control** over a technology's development, **share the financial returns** and exposes a firm to the possibility of **malfeasance by its partner**. On the upside, collaboration also **lowers the costs and risks** associated with the development of a new technology.

Reasons for Going Solo

Why would a firm develop a technology on its own instead of collaboration with a partner?

A firm may go solo if

- it **possesses all the capabilities** and resources in house that it needs,
- the development of the new technology is an opportunity to **develop new competencies**,
- the **risk of transferring knowledge** to a partner is too great,
- the firm wants to control the subsequent trajectory of the technology's development, or
- if an **appropriate partner is not available**.

Reasons for Going Solo: example

For example, **Monsanto** developed **on its own** a genetically modified soybean seed that could be used in conjunction with ***Roundup***, an herbicide.

They had to go solo because the biotechnology industry was in its infancy; there were no appropriate partners to supply the technology. Monsanto turned the need to develop this capability in house into an opportunity to make **biotechnology its strategic focus.**

Reasons for Going Solo: example

Honda Motors did not join the Alliance of Automobile Manufacturers when developing its Honda Insight hybrid electric vehicle because it wanted to **retain control over the development process** (and the profits) and because the company's **culture emphasizes independence and self-reliance**.

Advantages of Collaborating

1. Collaborating can provide a firm with the needed skills or resources **faster** than developing them on their own.
2. Using the skills or resources of a partner can help a firm **reduce its asset commitment** (and avoid a large investment in a technology that may become obsolete quickly) and **enable it to be more flexible**; an especially important feature in markets characterized by rapid technological change.

Advantages of Collaborating

3. Collaboration can also be an important opportunity for the firm to **acquire new knowledge**, either through the transfer of knowledge between development partners or the more efficient creation of new knowledge as a result of the collaborative efforts.

4. Collaboration may also be advantageous if it results in the creation of a **shared standard**. Where compatibility and complementary goods are important to the commercialization efforts of a new technology, collaboration at the development stage can bring about **cooperation at the commercial stage**

Collaboration

- Collaboration can **take many forms** and can be formed to accomplish almost any business function.
  - Potential **partners include suppliers, customers, competitors, and complementors, organizations that offer similar products in different markets or offer different products in similar markets**, **non-profit organizations**, **government organizations** and **universities** among others.
  - Firms may choose to collaborate in the areas of **manufacturing, services, marketing, or technology-based objectives**. Collaboration for the purpose of **research and development ranks high among the reasons** partners join efforts, particularly in North America.

Types of Collaborative Arrangements

- Collaboration arrangements range from **very informal alliances** to highly **structured joint ventures or technology exchange agreements** (licensing). The most common forms of collaboration in technological innovation are
- 1. strategic alliances,
- 2 joint ventures,
- 3 licensing,
- 4 outsourcing, and
- 5 collective research organizations

1. Strategic alliances

Strategic alliances require a significant investment in time and resources but in exchange firms **gain access to capabilities** not available in house, **leverage their capabilities by combining their efforts** with another firm, achieve innovation goals **faster**, at a **lower cost** and with **less risk.**

Alliances can also provide a firm with the **flexibility** to pursue various opportunities for innovation or **access different types and scale of capabilities**, important in rapidly changing markets.

Strategic alliances: example

- An alliance between a **large pharmaceutical company and a small biotechnology** firm provides the large firm access to drug discoveries and the smaller firm benefits from the capital resources, manufacturing, and distribution capabilities of the larger firm.

Strategic alliances

- **Doz & Hamel** categorized alliance strategies along **two dimensions**:
  - Whether the alliance pools or transfers capabilities from one firm to another,
  - Whether the alliance is between two companies or three or more companies (i.e. collective network of alliances).

Types of Collaborative Arrangements

	Individual Alliance	Network of Alliances
Capability Complementation	A GE-SNECMA alliance	B Corning Glass alliances
Capability Transfer	C Thomson-JVC alliance	D Aspla

- Doz and Hamel note that a firm's alliance strategy might emphasize **combining complementary capabilities** or **transferring capabilities**.
- It might also emphasize **individual alliances** or a **network of alliances**.

Access the text alternative for these images

Other Types of Collaborative Arrangements

Joint Ventures: A particular type of strategic alliance that entails significant equity investment and often establishes a new separate legal entity.

Licensing: a contractual arrangement that gives an organization (or individual) the rights to use another's intellectual property, typically in exchange for royalties.

Outsourcing: When an organization (or individual) procures services or products from another rather than producing them in-house.

Collective Research Organizations: Organizations formed to facilitate collaboration among a group of firms.

Choosing a Mode of Collaboration: Solo

Solo internal development is relatively **slow and expensive**, offers **little-to-no potential for accessing another firm's competencies** but enables a firm to **retain control** over how the technology is developed and used and is most likely to contribute the **leveraging of existing competencies** and the development of new ones.

Solo internal development is appropriate when a firm has strong competencies related to the new technology, access to capital, and is not under great time pressure.

Choosing a Mode of Collaboration: Strategic alliances

Strategic Alliances enable firms to quickly gain **access to another firm's technology**, or to **broader markets**, to **leverage existing competencies** or **develop new competencies** depending on the structure of the alliance.

Choosing a Mode of Collaboration: Joint ventures

Joint Ventures offer a **slight time advantage** over solo development efforts due to combined efforts of partners.

Joint ventures also offer **cost sharing**, the potential for **leveraging existing competencies** and **developing new competencies** and the opportunity to **access partners' competencies**.

Joint ventures are particularly desirable when a firm places value on access to other firms' competencies.

Choosing a Mode of Collaboration: Licensing in

- **Licensing in** is a **fast** and **moderately priced** way to access new technology. Licensing also has the potential to leverage the firm's existing competencies, develop new competencies and provide access to another firm's existing competencies.
- On the downside, licensing in offers limited use of a technology and a low degree of control.

Choosing a Mode of Collaboration: Licensing out

- Licensing out offers a **fast** and **low cost** way of expanding the use of a technology into new products or markets. It **leverages the firm's existing competencies** and can enable it to **access other firm's competencies** (for example, their superior knowledge of a particular market).
- If offers **little opportunity for development of new competencies.**

example

Even if it is often stressed that a technology available for licence cannot be an important source of advantages Protcter & Gamble's (P&G) tells another story

Through its *connect and develop program* it focuses on sourcing ideas and technologies external to the firm that it can then add value to in its labs.

https://www.youtube.com/watch?v=SAvwst8FAuk&list=PLc6EeKrKYKClN48ow3Irj_sO0zQEY-Vwu&index=73

Choosing a Mode of Collaboration: outsourcing

Outsourcing affords **rapid access to another firm's expertise** and lower costs and **leverages a firm's existing competencies** by allowing it to focus on activities providing the greatest return.

On the downside, the firm has **little opportunity to build new competencies**.

Choosing a Mode of Collaboration: collective research organization

Collective Research Organization is a form of **long-term commitment** in which **costs and degree of control can vary** significantly.

These arrangements often enable a firm to **leverage and build upon its existing competencies** as well as to **learn from other participating organizations**.

These organizations are particularly useful in industries with complex technologies and/or industries that require considerable investments in basic science.

Choosing a Mode of Collaboration [1]

Firms should match the trade-offs of a collaboration mode to their needs.

NA	Speed	Cost	Control	Potential for Leveraging Existing Competencies	Potential for Developing New Competencies	Potential for Accessing Other Firms' Competencies
Solo Internal Development	Low	High	High	Yes	Yes	No
Strategic Alliances	Varies	Varies	Low	Yes	Yes	Sometimes
Joint Ventures	Low	Shared	Shared	Yes	Yes	Yes
Licensing In	High	Medium	Low	Sometimes	Sometimes	Sometimes

Choosing a Mode of Collaboration 2

N A	Speed	Cost	Control	Potential for Leveraging Existing Competencies	Potential for Developing New Competencies	Potential for Accessing Other Firms' Competencies
Licensing Out	High	Low	Medium	Yes	No	Sometimes
Outsourcing	Medium/ High	Medium	Medium	Sometimes	No	Yes
Collective Research	N A	N A	N A	N A	N A	N A
Organizations	Low	Varies	Varies	Yes	Yes	Yes

Choosing and Monitoring Partners

- **Risks** of collaboration include difficulties in determining if the **resources provided by partner are a good fit**, the possibility that the **partner will exploit** the relationship by expropriating the company's knowledge with little or no reciprocal contribution, and the possibility that managers will become overburdened by managing more collaborations than is reasonable.

→It is thus important to **limit collaborations**, **choose partners carefully** and **establish monitoring and governance** systems to **limit risks**.

Choosing and Monitoring Partners

→ **Partner selection is crucial to success**. Key factors fall into two dimensions:

- **resource fit** (e.g. partner's relative size and strength and complementarity of resources) and

- **strategic fit** (e.g. alignment of objectives and similarity of values and culture).

Choosing and Monitoring Partners

- **Resource fit:** How well does the potential partner fit the resource needs of the project? Are resources complementary or supplementary?
- **Strategic fit:** Does the potential partner have compatible objectives and styles?
- **Impact on Opportunities and Threats**: How would collaboration impact bargaining power of customers and suppliers, degree of rivalry, threat of entry or substitutes?
- **Impact on Internal Strengths and Weaknesses**: Would collaboration enhance firm's strengths? Overcome its weaknesses? Create a competitive advantage?
- **Impact on Strategic Direction:** Would the collaboration help the firm achieve its strategic intent?

Choosing and Monitoring Partners

Partner Monitoring and Governance is as crucial to success as partner selection.

There are three main types of governance mechanisms used to manage collaborative relationships:

- **1. Alliance contracts**
- **2. Equity ownership**
- **3. Relational governance**.

1. Alliance contracts

Alliance contracts clarify partners' rights and obligations and specify legal remedies in the case of a violation of the agreement. Often included in the agreements are:

- What each partner is obligated to contribute to the collaboration.
- How much control each partner has in the collaboration.
- When and how proceeds of the project will be distributed.
- Mechanisms for monitoring each partner's adherence to the agreement.
- Provisions for periodic auditing.
- Provisions for terminating the relationship.

2. equity ownership; 3. relational governance

- May also use shared **equity ownership** (that is, each partner contributes capital and owns a share of equity in the alliance).
  - Helps to align incentives and provide sense of ownership.
- May rely on **relational governance** (self-enforcing governance based on the goodwill, trust, and reputation of partners).
  - Built over time.
  - Can facilitate more extensive cooperation, sharing, and learning by partners.

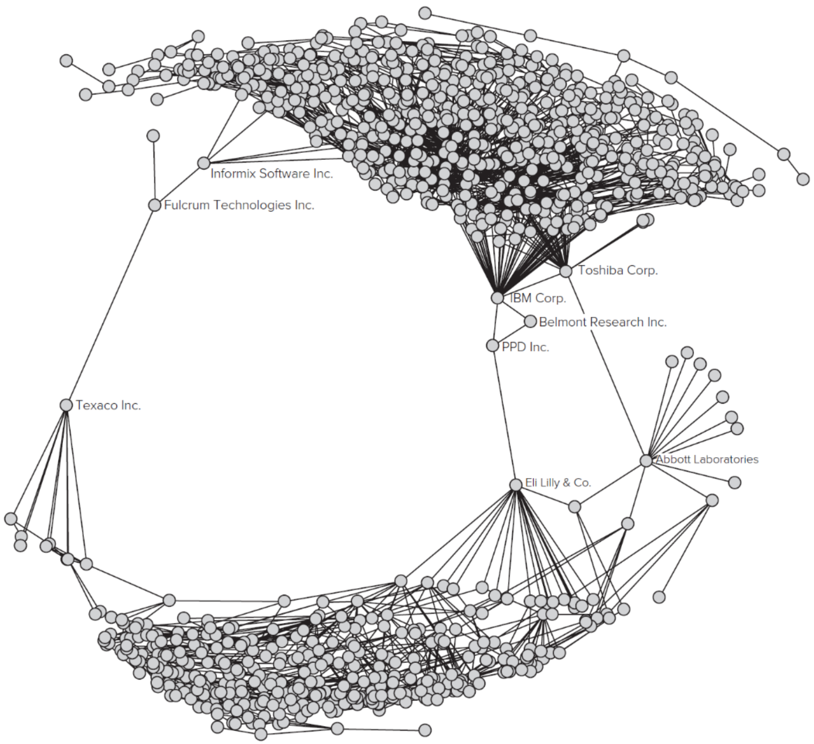
Strategic Positions in Collaborative Networks

Firms should also think about how their alliances position them within the overall **collaborative network**.

Firms that occupy highly central positions might have access to more information and be able to access that information more quickly.

Firms that occupy "**brokerage" positions** (by bridging groups of otherwise disconnected firms) might have opportunities to make unique and valuable combinations between heterogeneous types of information and might also become valuable gatekeepers in the flow of information through the network.

Global Technology collaboration network (1998)



A firm's position within a collaborative network influences its access to information and other resources, and its influence over desired outcomes. Some of the key aspects of a firm's position include ***centrality*** and opportunities for ***brokerage***.

For example, in this graph, though PP D Inc. has only three alliances, it serves as an important bridge between the two lobes of the network, which should give it important opportunities for brokerage.

Discussion Questions

1. What are some of the advantages and disadvantages of collaborating on a development project?
2. How does the *mode* of collaborating (for example, strategic alliance, joint venture, licensing, outsourcing, collective research organization) influence the success of a collaboration?
3. Identify an example of collaboration between two or more organizations. What were the advantages and disadvantages of collaboration versus solo development? What collaboration mode did the partners choose? What were the advantages and disadvantages of the collaboration mode?
4. If a firm decides it is in its best interest to collaborate on a development project, how would you recommend the firm go about choosing a partner, a collaboration mode, and governance structure for the relationship?