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Chapter 8

Collaboration Strategies

Strategic Management of Technological Innovation, 7th Edition
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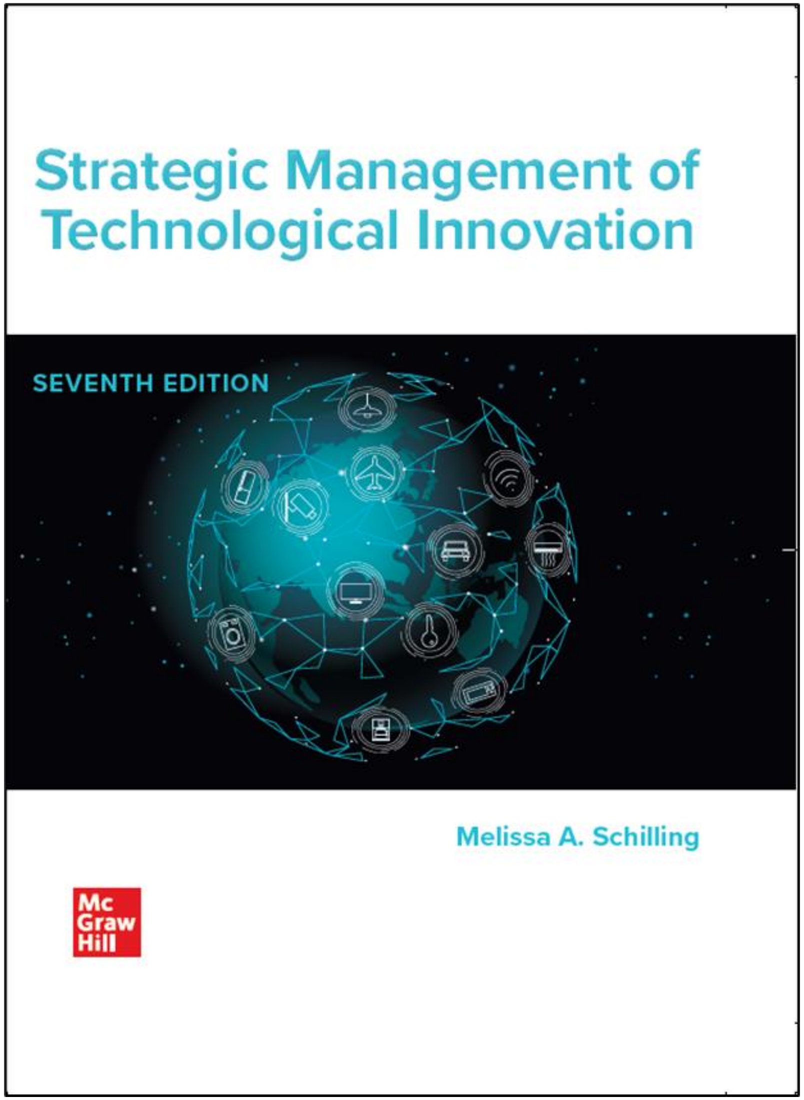

Zeta Energy and “The Holy Grail” of Batteries [1]

In 2021, Zeta Energy had developed a lithium metal battery that had an extremely high energy density, long life, and much lower cost than traditional lithium-ion batteries. The batteries were also recyclable and did not use cobalt (a politically sensitive and expensive material).

Demonstrating commercial scale of the batteries, however, required $100 million for the factory, equipment, and personnel.

There was considerable uncertainty about which battery technology(ies) would succeed, making investors wary. Furthermore, the founder was reluctant to go to venture capitalists because he did not want to give up significant control of the firm.

Zeta was considering several different types of collaboration to gain access to needed resources: chemical firms, consumer electronics firms, the government, other battery companies etc. Which, if any, made the most sense?

Zeta Energy and “The Holy Grail” of Batteries 2

Discussion Questions:

1. What are the pros and cons of Zeta Energy collaborating with another organization?
2. What type of potential partner offers the most “resource fit” for Zeta Energy? What type of potential partner offers the most “strategic fit” for Zeta Energy? Is there a collaboration partner you would recommend?
3. If Zeta Energy entered into a collaboration, what type of collaboration structure (for example, R&D alliance, joint venture, licensing, outsourcing, etc.) should it use? What would you recommend to Zeta Energy about governance of the collaboration?

Overview

Firms must often choose between performing **innovation** activities:

- **alone**

- or in **collaboration**.

Collaboration can enable firms to achieve more, at a faster rate, and at less cost and risk.

However, collaboration also entails sharing control and rewards, and may risk partner malfeasance.

Reasons for Going Solo

Whether a firm chooses to engage in solo development or collaboration will be influence by:

- **Availability of capabilities** (does firm have needed capabilities in house? Does a potential partner?).
- **Protecting proprietary technologies** (how important is it to keep exclusive control of the technology?).
- **Controlling technology development and use** (how important is it for firm to direct development process and applications?).
- **Building and renewing capabilities** (is the project key to renewing or developing the firm's capabilities?).

What are main implications for innovation?

Types of Collaborative Arrangements 1

There are numerous types of collaborative arrangements, each with its own advantages or costs.

- **Strategic Alliances**: **formal** or **informal** agreements between two or more organizations (or other entities) to cooperate in some way.
- 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**.
- …but also possible overlapping capabilities and waste of time/energy/costs?

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Advantages of collaborating

- Acquiring Capabilities and Resources Quickly: to gain rapid access to complementary/useful capabilities from partners.

- Increasingly Flexibility: to reduce its asset commitment and enhance flexibility.

- Learning from Partners: transfer of knowledge from partners and creation of new knowledge that individual firms could not have created alone.

- Resource and Risk Pooling: sharing costs and risks of a project.

- Building a Coalition around a Shared Standard: development of a project with a collaboration that facilitates the creation of a shared standard.

Types of Collaborative Arrangements 2

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 (e.g. involving universities).

Choosing a Mode of Collaboration [1]

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

	Speed	Cost	Control	Leverages Existing Competencies	Develops New Competencies	Accesses 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
Licensing Out	High	Low	Medium	Yes	No	Sometimes
Outsourcing	Medium	Medium	Medium	Sometimes	No	Yes
Collective Research Organizations	Low	Varies	Varies	Yes	Yes	Yes

Choosing a Mode of Collaboration 2

Partner Selection.

- **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?

Impact on Opportunities and Threats in the External Environment

Assessing the collaboration's impact on the firm's opportunities and threats includes asking questions as:

- how would the collaboration change the bargaining power of customers or suppliers?

- Would the collaboration impact the threat of entry? Is the partner likely to become a new competitor? Does the partnership raise barriers to entry for other potential entrants?

- Would the collaboration impact the firm's position vis-à-vis its rivals?

- Would the collaboration influence the availability of complementary goods or the threat of substitutes?

Impact on Internal Strengths and Weaknesses

Assessing the collaboration’s impact on the firm’s strengths and weaknesses includes asking questions as:

- How would the collaboration leverage or enhance the firm’s strengths? Does the collaboration put any of those strengths at risk?

- How would the collaboration help the firm overcome its weaknesses?

- Is the collaboration likely to yield a position of competitive advantage that is difficult for competitors to imitate? Is such a competitive advantage achievable without collaborating?

- Would the collaboration leverage or enhance the firm’s core capabilities?

- Is the collaboration likely to impact the firm’s financial strengths or weaknesses?

Impact on Strategic Direction

Assessing the fit of the collaboration with the firm’s strategic direction includes asking questions as:

- How does the collaboration with the firm’s strategic statement of strategic intent?

- Is the collaboration likely to help the firm close any resource or technology gap between where it is now and where it would like to be?

- Are the objectives of the collaboration likely to change over time? How are such changes likely to be compatible or incompatible with the firm’s strategic direction?

Choosing and Monitoring Partners 1

Partner Monitoring and Governance.

- Successful collaborations require clear yet flexible monitoring and governance mechanisms.
  - May utilize legally binding **contractual arrangements**.
    - Helps ensure partners are aware of rights and obligations.
    - Provides legal remedies for violations.
  - Contracts often include:

1. What each partner is **obligated to contribute**.
2. How much **control** each partner has in arrangement.
3. When and how proceeds of collaboration will be **distributed**.
4. **Review** and **reporting** requirements.
5. **Provisions for terminating** relationship.

Choosing and Monitoring Partners 2

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**.

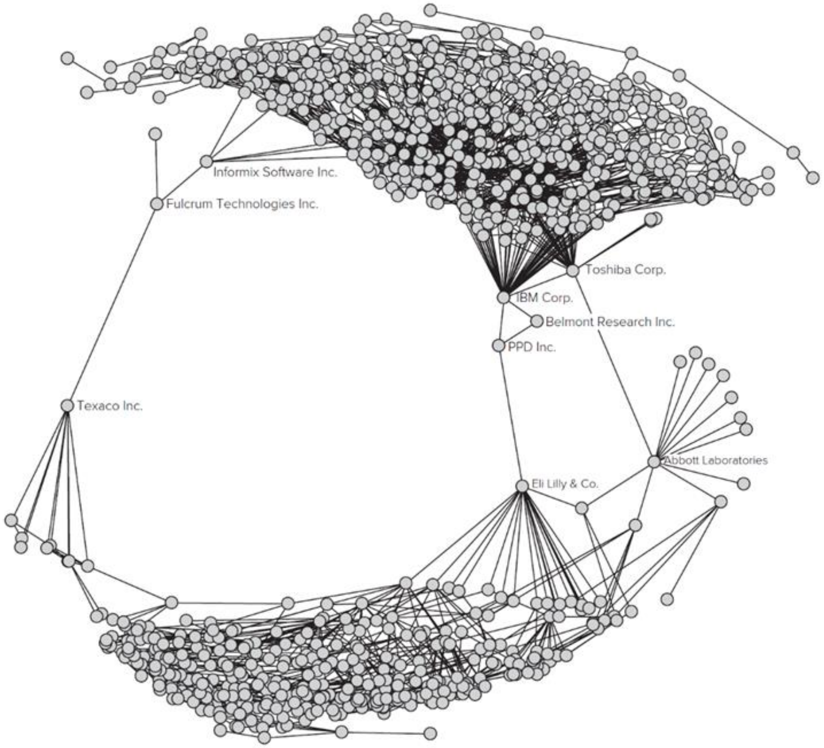
May rely on **relational governance** (self-enforcing governance based on the goodwill, trust, and reputation of partners).

- Built over time.
- Can facilitate more extensive cooperation, sharing, and learning by partners.

Research Brief

Strategic Positions in Collaborative Networks.

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 PPD 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.



Note: Component 1 – electronics / Component 2 – Chemical and Medical

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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?

Supplementary Video

Short Videos on:

Innovation Strategy: Collaboration Types.

https://youtu.be/tJlJJhPJHs0

Innovation Strategy: Collaboration Partners and Governance.

https://youtu.be/EHULUlCYOUQ

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