

In Bed with the Enemy

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US manager of a venture with a Japanese rival: “We complement each other well – our distribution capability and their manufacturing skill. I see no reason to invest upstream, if we can find a secure source of product. This is a comfortable relationship for us.”

Executive from the Japanese partner: “When it is necessary to collaborate, I go to my employees and say, ‘This is bad, I wish we had the skills ourselves. Collaboration is second best. But I will feel worse if after four years we do not know how to do what our partner knows how to do.’ We must digest their skills.” (Hamel et al, 1989)

Introduction

The traditional focus of companies has been on competition. However, increasingly companies understand that it may be in their best interest to collaborate with their competitors. What drives a company to collaborate with competitors, and what are the potential benefits and pitfalls? Under what conditions should the company pursue a business opportunity on its own? These are questions we try to address in this pattern language. We aim to understand the forces underlying business collaboration. These patterns are inspired by the insight that companies may need to collaborate with other companies whom, in the traditional sense of doing business, they would have treated as competitors.

The patterns were mined from the research literature on business collaboration. Some insights are also informed by the author’s tenure in the strategic research group of a mid-sized telecommunications company. The sources for our patterns include work on business ecosystems (Moore, 1996), external product development (Goldman and Gabriel, 2005), and applications of game theory to business strategy (Brandenburger and Nalebuff, 1996). They also include the technology innovation management literature, exemplified by (Schilling, 2008). We share Kelly’s notion that patterns are highly suited to documenting business strategies, as they make context and forces of each strategy explicit (Kelly, 2005).

The audience includes students of business strategy and new managers. At the same time, our hope is that thinking about business strategies in terms of patterns will force us to reconsider business strategies and lead to new insights about them.

Figure 1 shows a roadmap of the patterns we have collected so far. Note that this is just the beginning of a larger pattern language on business collaboration.

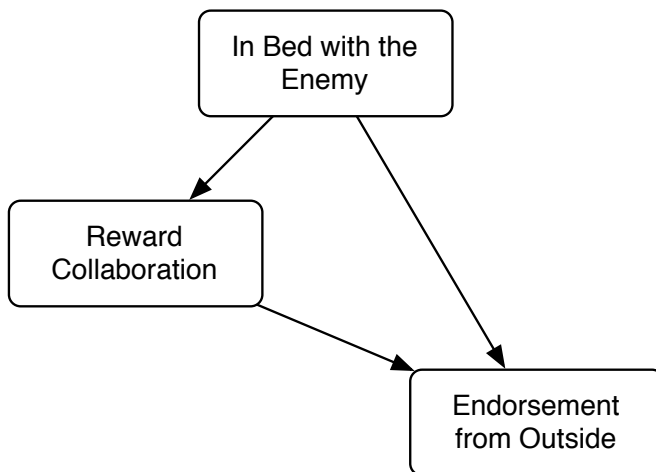


Figure 1: Roadmap of the pattern language (arrows indicate uses relationships)

In Bed with the Enemy

Companies compete for market share. At the same time, they need to develop products ever more quickly to keep up with changing technology and customer needs. How can companies avoid being late introducing new products and, on top, bearing the risk of developing the wrong type of product? Companies may be in a better position to compete by pooling the complementary assets (i.e. capabilities and resources) of other companies, and thus sharing the risk and cost of new product development.

Example

Until the summer of 2005, Apple countered the trend of the PC industry by using the Power PC processor at the core of its computer products. They considered the CPU a core asset, as the Power PC had the image of being the fastest processor available. However, with each product generation competing products using Intel processors closed the performance gap. On top of this, Apple faced engineering challenges migrating to multi-core processors, which their competitors were starting to deploy.

As technology and new customer demands are catching with them, what action should Apple take to face those issues and regain their competitive advantage?

Context

A company competes for market share. It is faced by shortened product life cycles and technological uncertainty. Its competitors are in a similar situation.

Problem

How can a company avoid being late introducing new products and, on top, bearing the risk of developing the wrong type of product? If a company decides to build the capabilities and resources (also known as assets) required to develop products internally, it risks being late to market. Capabilities include technological or marketing expertise, and an example of a resource is capital. Instead, a company may choose to obtain these assets from external partners. In some cases, there may be no choice, but the very survival of the company depends on collaboration with others. However, this requires the company to relinquish some control over the development of its products and the use of the results.

The solution to this problem has to balance the following forces:

- **Time.** A company faced by rapidly changing external requirements (new customer needs, new technologies, new features offered by competitors) needs to find ways to reduce the time required to obtain the capabilities and resources it lacks. It could develop those assets internally, but at the risk of delaying the time to product.
- **Cost.** Investing in new product development is costly. Furthermore, if the outcome is uncertain, for example, due to the lack of maturity of the technology used, multiple alternative options should be explored in parallel. A company needs to avoid committing itself to assets that may quickly become obsolete.
- **Assets.** To be able to respond appropriately to new market and technology developments, a company needs a continuous influx of new ideas and practices. At the same time, it needs to renew its core abilities, which means that some of its product development should be done internally, even if it consumes more time.
- **Control.** A company needs to protect its core assets in order to remain competitive. These include intellectual property, development processes, and use of the developed technologies. Collaboration requires a company to share information with its partners, and to relinquish some control over those core assets.

Solution

Combine (“pool”) complementary assets (capabilities and resources) from other companies, and thus share the risk and cost of new product development.

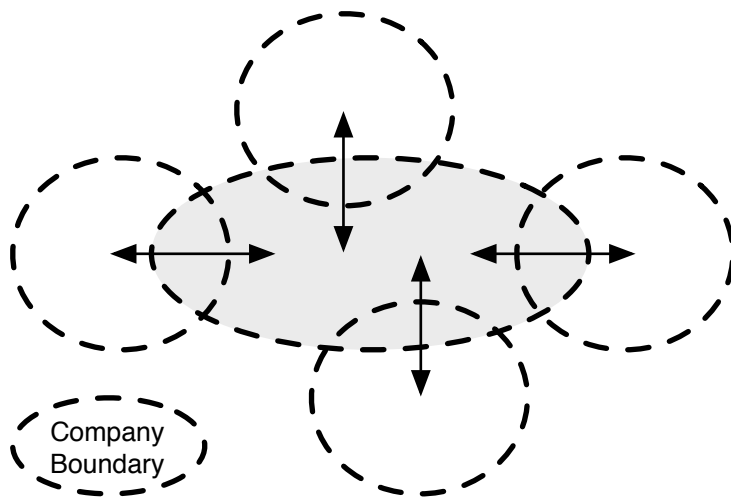


Figure 2: Structure of *In Bed with the Enemy*

Figure 2 shows the structure of this pattern. The arrows indicate collaboration. At the level of this pattern, collaboration is shown as bidirectional. In subsequent patterns we will differentiate between bringing assets into the organization or moving them out.

This solution suggests that the company should focus on its core assets and collaborate with partners to obtain those assets that are non-core, or complementary to its main business. This means that the company should specialize and rely on linkages to other equally specialized partners for complementary assets. In this way, the company can reduce its commitment to assets which are specific to a particular product or design alternative, and could not be reused in another context, and thus lower its costs.

Sourcing complementary assets from others allows the company to respond more quickly to changing environments (market demands and technological evolution). Interaction with partners also provides the company with an opportunity to learn from others, and incorporate new practices and technologies into its own development processes. In particular, this enables learning “outside the box” from the existing product vision. Sometimes, a company may be forced into collaborating as its survival depends on it. In such cases, sharing assets becomes a necessity, not a strategic option.

There are two ways of implementing this strategy. The first option is to combine (“pool”) capabilities and resources from other companies, but without long-term transfer of the underlying knowledge. Essentially, this allows the companies involved to protect their core assets as a “black box”, but limits mutual learning. The second option is to share control over complementary capabilities and resources. The shared assets can be thought of as placed into a “commons” to which all partners have equal access.

Each company can now also play a more significant role in its core area, since it no longer needs to divert its energy on the development of complementary assets. The total value created is thus larger than the sum of the values each company could create on its own. Companies will, therefore, increase the value they can capture, although they now need to

share the market with their collaborators. As (Brandenburger and Nalebuff, 1996) put it, collaboration creates a bigger “pie”, which the partners then compete to divide up. The benefits are different, when companies are forced into collaboration, as is this often due to a fundamental change in their business environment that affects them equally. Sharing allows them to stave off the common threat (at least, temporarily) and gives them more time to adjust to the changes.

However, if a company already has the capabilities or the financial resources required, and is not under time pressure, it may consider going it alone. Alternatively, it may be the case that there are no potential collaborators from which the assets can be obtained (either none has the appropriate assets, or they are unwilling to collaborate). The company may also be concerned with protecting its intellectual property. Finally, the company may need to renew its capabilities, and thus chooses not to collaborate.

Example Resolved

Apple responded to the challenge of the ailing Power PC processors by moving to an Intel-based architecture. While this came as a surprise to many industry observers, it is a good example of getting *In Bed with the Enemy*. The logic of the pattern dictates that if a company does not possess a complementary asset, it should try to obtain it from another. In exchange, it can respond more quickly to changes in technology or customer needs. By adopting an Intel-based architecture for its products, Apple also turned a perceived core asset (its processor architecture) into a complementary asset. It was now able to refocus its business around the Mac OS and the iPod ecosystem.

Known Uses

JVC and Thomson (Thorn) formed a strategic alliance in the early 1990s in creating JTL (Hamel et al, 1989). JVC was the provider of the leading VHS technology for VCRs and requisite manufacturing knowledge. Thomson brought to the table access to European markets that JVC lacked. By collaborating JVC and Thomson pooled their complementary assets, and could increase their respective share of the overall VCR market. The partners in this alliance were each missing capabilities (technology and market access), and considered that exchanging them was mutually beneficial.

The Bluetooth and Symbian alliances are examples of where collaboration between competitors results in setting a common standard to ensure compatibility. The Symbian alliance also illustrates the time-limited nature of collaborations. It was formed in 1998 between the three biggest handset manufacturers of the time (Ericsson, Motorola, and Nokia) and the PDA-maker Psion in order to develop a joint operating system. However, in 2003, Motorola left the alliance due to the growing influence of Nokia, and joined the Windows Mobile alliance as well as starting to use Linux.

Collaboration between competitors is also common in open source development. Often open source projects such as Eclipse are company-sponsored (Eclipse, 2007). For example, the development of the Eclipse Web Tools platform is jointly supported by companies

such as BEA, IBM and Borland, who all provide contributors to the project. In this case, the companies collaborate to share the development cost and risks of the non-value added components of their commercial products. It is also an example of collaborating in order to set a de facto standard, that is, the risk of market fragmentation was higher than the potential benefits from owning the platform.

A good example where collaboration is borne out of necessity is the collaboration by producers of lead additives for gasoline in the 1970s. By collaborating, companies like Ethyl and DuPont managed to turn out profits even long after legislation was put in place that phased out the use of such additives (Greenwald and Kahn, 2005). Finally, the quote at the beginning of this paper illustrates a common mistake made by Western companies when collaborating with their Asian competitors. As described in (Hamel, 1986), they treated the collaboration as an outsourcing arrangement, which ultimately lead to the dependence of the Western partner on the Asian competitor.

Consequences

The following benefits may be expected from applying this pattern:

- The time to introducing a new product is shortened.
- Product uncertainty and associated cost will be managed by distributing the load of developing different product alternatives among the partners.
- The total value created increases, and the share of that value obtainable by each collaboration partner increases in absolute terms.
- It may extend the life of a business whose survival is threatened, and allow the partners to develop new assets required to move into a different business.

The following liabilities may arise from applying this pattern:

- It may be difficult to assess the real value a collaboration partner brings to a relationship, in particular, if it involves intangibles such as expertise.
- It may be difficult to implement due to a “not invented here” culture.
- If the core assets of a company are too weak, collaboration partners may be in a better position to turn the collaboration results into a successful product.
- If the collaborators are not evenly balanced in strength, collaboration may open up a company for take-over by the collaborator.
- Keeping the business units responsible for managing core and complementary assets separate may also prove difficult to do.
- If the objectives and cultures of the companies are not compatible, collaboration can lead to conflict, waste of resources, and lost opportunity.
- The benefits of collaboration will generally be limited in time. The external conditions and the nature of the collaboration itself may have changed.

- Sourcing assets from a collaborator may leave a company without a backup plan, if the collaborator goes out of business.
- If collaboration is only used to avoid risk by one side, but to internalize new skills by the other side, it will eventually compromise competitiveness.
- The number of collaborations that a company can manage effectively is limited. More collaborations can actually have a negative impact on the company.

See Also

A “not invented here” culture is a common obstacle to collaboration. Often, this can be overcome by establishing a system to *Reward Collaboration*. Conversely, internally developed product ideas may not receive the attention they deserve. Collaboration can be an enabler for these ideas to be adopted via an *Endorsement from Outside*. A related pattern is *Innovation Happens Elsewhere* (Goldman and Gabriel, 2005). It describes how the results of external product development can be reintegrated into a company’s own products. Its focus is not specifically on collaborating with competitors. However, it should be noted that external partners can later turn into competitors.

Reward Collaboration

Under time pressure, companies will try to minimize the risk of integrating externally created assets. Even if a company successfully incorporates external assets (e.g. a new technology), a reduction in internal funding may paradoxically be the result. Internal staff thus have little incentive to look outside. Therefore, provide incentives and management support for employees to search out external assets.

Example

Procter and Gamble was a traditionally inward-oriented company. In 2000, it missed several revenue targets, its stock plunged, and it was forced to lay off a large number of its staff. The reason for the slump was that its current markets had matured, and it was not introducing enough new products to compensate (Chesbrough, 2006).

How could P&G increase the rate of introducing new products while maintaining its leadership in its existing brands?

Context

When using *In Bed with the Enemy* ...

... the company may have a “not invented here” culture. Many other companies have technologies that could be valuable to the company.

Problem

Internal staff have little incentive to look outside. Under time pressure, companies will try to minimize the risk of integrating externally created assets. Even if a company succeeds incorporating external capabilities and resources (e.g. a new technology), a reduction in internal funding may paradoxically be the result.

The solution to this problem has to balance the following forces:

- Companies often only reward their staff for new discoveries, as measured by patents filed, not identifying and incorporating external technologies.
- A shorter time to product means less time to evaluate and incorporate external technology, and using externally created technology is often perceived as creating an additional schedule risk. Both factors can make staff reluctant to look outside.
- Cost-driven management may interpret a successful integration of outside assets as a signal to reduce internal staff. The paradoxical outcome of this is that staff will be penalized when they fail to develop new products internally, and when they successfully incorporate external technology into products.
- Young companies only have a small internal development staff, and do not run the risk that internal staff is displaced from incorporating external assets, whereas large companies may only adopt an outward-oriented strategy, if the inward-bound approach is seen as a failure, typically when layoffs occur.

Solution

Provide incentives and management support for employees to search out external assets to incorporate into your products.

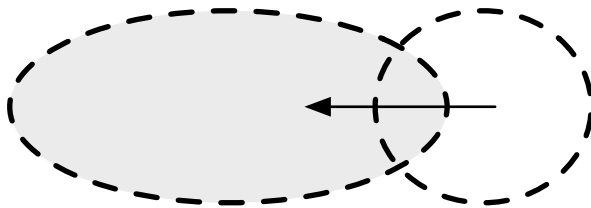


Figure 3: Structure of *Reward Collaboration*

Figure 3 shows the structure of this pattern. The arrow points inward to indicate that externally developed assets are imported into the company.

Reorienting a company to look outside for new capabilities and resources allows it to benefit from the innovations of other companies. When adopting this strategy it is important that employees are ensured that increasing the use of external technology will not result in

staff reduction. This is not an easy transition to make, and must be driven by a sponsor at the senior management level to lend the initiative credibility.

Example Resolved

After the layoffs, Procter and Gamble shifted to its Connect and Develop initiative, which gave internal staff the mandate to search out external technology to incorporate into products (Chesbrough, 2006). Employees were ensured that this would not lead to further cuts. The reception of the shift was clearly positively affected by the problems the company had been facing prior to the change in culture. Procter and Gamble effectively more than doubled the number of its “staff” by adding “virtual and extended partners”.

Known Uses

IBM’s decision to embrace Linux as the main platform for its enterprise products is an example of this pattern. By doing so, IBM rebuilt its share of the enterprise market while distributing its development risks for a new operating system. Both cost and risk for enhancing Linux are shared with many other companies (Chesbrough, 2006).

Google exposing its Maps and other APIs to external developers (Google, 2007) is an example of where a company unencumbered by existing investments can leverage external development. Developers have created a wealth of mash-ups that Google, on its own, could not have created (less time and more diverse). Although these developers are potential competitors to Google, opening the APIs meant a larger number of mash-ups that can provide Google with feedback on its APIs, and generate revenue from targeted advertisements that is higher than through any applications it could have created on its own.

The author was involved in the construction of a large research network that created collaborations with many universities. The collaborations resulted in the development of new technologies, and made the company more aware of strategically important technology trends. It allowed the company to transition more quickly to the next generation of IP-based telephony products. It also created goodwill among potential new employees.

Consequences

The following benefits may be expected from applying this pattern:

- Staff will be more accepting of outside ideas.
- Companies gain access to a much larger pool of ideas.

The following liabilities may arise from applying this pattern:

- Managing external collaborations can be more challenging than interaction within the company. The cultures of the companies also need to be compatible.
- Integrating external technology may still be a challenge. Staff may not have sufficient capabilities to incorporate the external technology.

See Also

As a company becomes more outward-facing, it may also take a new perspective on internally developed technologies that the company does not use. Traditionally, such knowledge would have been kept inside, even if it could economically be more beneficial to allow somebody else to “run” with it. However, by looking outside for other businesses, who are better positioned to develop the opportunities these assets provide, the company may also leverage such languishing assets through an *Endorsement from Outside*.

Endorsement from Outside

Only a small percentage of internally developed assets are actively used, either deployed internally or sold in a product, because companies fail to realize their potential. This is not only wasteful, but also demoralizes staff. Ironically, the fastest way to get a company to adopt unused internally developed assets may be to license them to a competitor. Success outside the company is likely to kindle interest internally. Therefore, look for opportunities to partner with competitors who value internally developed capabilities more highly than you do (at least initially).

Example

Proctor and Gamble had assembled an arsenal of patents, many of which it did not capitalize on (Chesbrough, 2006). It did not use them in its own products, but held them back for the eventuality that they might prove beneficial in the future. Many patents simply languished in Proctor and Gamble’s portfolio without ever being used.

Context

When using *In Bed with the Enemy* or *Reward Collaboration* ...

... the company can have many unused assets. Competitors with a different perspective on these assets may see a business opportunity not visible to their owners.

Problem

Many internally developed assets are never used inside or outside the company. Only a small percentage of internally developed assets are actively used, either deployed internally or sold in a product, because companies fail to realize their potential. This is not only wasteful, but also demoralizes staff.

The solution to this problem has to balance the following forces:

- Unused ideas drain company resources.

- Staff will be demoralized if much of the technology they developed is never used in products. Worse than that, people may decide to quit.
- Another company may be in a better position to exploit the ideas. However, it is difficult to identify such companies.
- There is a perception that a company will hold on to its best ideas.

Solution

Look for opportunities to partner with competitors who value the internally developed capabilities more highly than you do (at least initially).

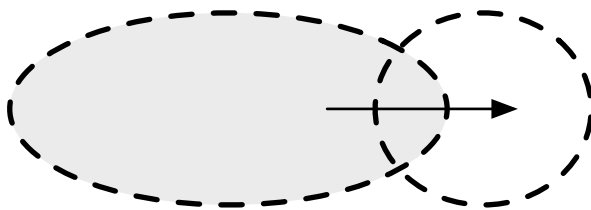


Figure 4: Structure of *Endorsement from Outside*

Figure 4 shows the structure of this pattern. The outward pointing arrow signifies that internally developed assets are exported by the company.

Often, the fastest way to get a company to adopt an internally developed capability may be to license it to a competitor. Success outside the company is likely to then kindle the interest internally. In order to select candidate companies to whom the capability could be licensed, the company must build a network of potential partners. Relationships with licensees must also be carefully managed (e.g. in terms of who owns what intellectual property) in order to turn them into long-lasting partnerships. It is usually better to compromise on the first license deal to allow for more profitable follow-up deals.

Example Resolved

Procter and Gamble instituted the 3/5 program, which slated unlicensed technology to be licensed to other companies, including direct competitors, three years after shipping a product or five years after a patent on it was issued. An example is the collaboration with its former competitor Clorox. Clorox, the producer of the Glad plastic bags and wraps had trouble with creating a follow-up product that would differentiate it in the market. Procter and Gamble licensed its Press'n Seal and other technologies to Clorox, which lead to a highly successful set of new products under the Glad brand. The collaboration created larger revenues for Procter and Gamble than had used the technologies internally, in part because it did not require them to invest in distribution (Chesbrough, 2006).

Known Uses

Many companies now turn formerly commercial products into open source. Examples include IBM's Cloudscape database product, which form the basis for the Apache Derby project, or Computer Associate's open sourcing of Ingres. This provides companies with a number of benefits. Their employees, by receiving recognition in the open source community, will, in turn, be more motivated and productive. The company can evaluate new or uncertain evolution paths within the open source project. It can also benefit from the contributions of others, and obtain an enhanced technology in return. Finally, it can aim to establish the open source solution as a standard, and leverage its popularity by building commercial offers on top of it.

Consequences

The following benefits may be expected from applying this pattern:

- Releasing unused assets to other companies is likely to generate new business opportunities, which would never evolve if the company kept them inside.
- It results in an additional source of revenue. Without licensing the technology, the revenue might as well be zero.
- Staff satisfaction increases, resulting in higher retention.

The following liabilities may arise from applying this pattern:

- The company may not get a fair return on the exchange of technology.
- Uncertain or shared IP over improvements to the technology jointly made between the company and the collaborator(s).
- As company employees develop a close relationship with the collaborating partner, they may be hired away or leave the company to become consultants.

See Also

A closely related pattern, but not in the context of business collaboration, is *External Validation* (Manns and Rising, 2005). As a strategy for change management, this pattern says that the best way of selling a new idea to an organization may be to point to others who have successfully applied it. *Endorsement from Outside* makes a capability attractive to a company by allowing others to build on it. The common theme is that outside success will create interest within the company.

Acknowledgements

I am grateful to my shepherd Linda Rising, who pushed the envelope beyond what I had originally envisioned for these patterns.

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Primary references are indicated with a (*). The others largely document additional sources of known uses and related patterns.

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