# Business Strategy; Methods and Models

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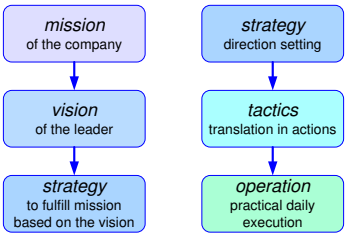


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## Abstract

The business strategy is input to many activities of architects. Lack of clear strategy complicates the work of architects. At the other hand architects need to contribute to the creation and evolution of the business strategy. We discuss several common methods and models to work on strategy, such as Strength, Weakness, Opportunity, and Threat Analysis, road mapping, and technology classification.



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# 1 Introduction

The business strategy is input to many activities of architects. Lack of clear strategy complicates the work of architects. At the other hand architects need to contribute to the creation and evolution of the business strategy.

The "strategy world" is full of concepts. We will provide a few simple models to position and explain these concepts. There is also an extensive amount of methods and techniques to create and evolve a strategy. We discuss a few methods and techniques that fit in the architecting contribution.

# 2 Basic Concepts

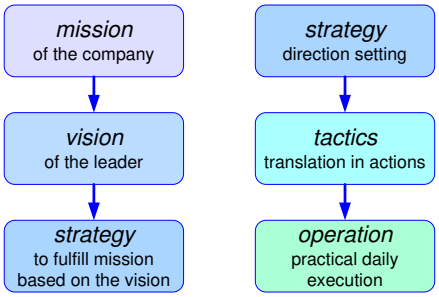


Figure 1: Some Basic Concepts

Nowadays companies foster an identity of the company by formulating a *mission*. The mission can be supported by the articulation of typical four company values. The company identity is used for branding: what is the image of the company, how is the company perceived by the market, its customers, and its shareholders. The mission and company values tend to be very generic, providing a direction to managers and employees. The *mission* is shown at the top in Figure 1.

The leaders in the company formulate a *vision*: what value can the company bring to the world, what role can the company play. The vision tends to be more market domain specific and will evolve over time.

A true vision is a powerful instrument, uniting the company employees by a shared vision. Unfortunately, too many visions are the result of a mechanistic process. The creation of a vision depends on leaders with the ability to combine a huge amount of context data in a sensible picture. A poor vision might result in ghost hunting or lack of cohesion in the organization.

The mission and vision set the scope for the strategy: where does the company want to go and why. At the right side of Figure 1 a often used layering is shown of *strategy*, *tactics*, and *operation*.

The *tactics* is an elaboration of the strategy, how can the strategy best be achieved. For example, do we start with top-of-the-line systems, followed by cost reduced systems, or vice versa.

The *operations* focus on the execution: get things done. Typically the operations has a fast hear beat, where resources and activities are managed continuously and deviations or problems are resolved as soon as possible.

Systems architects will often get the mission and company values as given. They will work using mission and values as guiding principles. Architects might be involved in the creation and evolution of the vision. System Architects should be involved in the strategy creation and evolution. They are typically involved in the tactics. A significant amount of the architect's time is spend in the operational aspects of product creation.

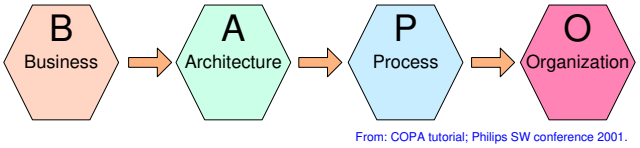


Figure 2: BAPO framework

Figure 2 shows the "BAPO" framework developed at Philips Research by Henk Obbink. The *Business* needs drive the *Architecture*. Ideally, the *Process* and *Organization* should be designed to facilitate the creation of the *Architecture*. In practice often the opposite is happening: the *Organization* structure is superimposed on the *Architecture*. In other words, we compromise the *Architecture* to fit in the existing *Organization*. The room for *Organization* changes triggered by the *Architecture* is limited since *Organization* changes tend to be slow. The consequence for architecting is that *Process* and *Organization* are part of the playing field. *Process* and *Organization* should not be seen as fixed entities.

# 3 Methods for Strategy Support

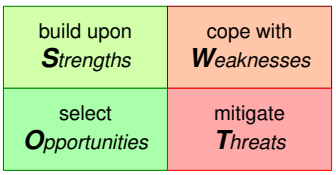


Figure 3: SWOT analysis

One of the methods that is frequently used when creating or evolving a strategy is a SWOT-analysis, see Figure 3, where the letters stand for:

**Strengths** of the own organization, including technology and market position, where the organization can build on.

**Weaknesses** of the own organization, where the organization has to cope with these weaknesses. Note that acknowledgment of a weakness and relying on outside support is a legitimate way to cope with weaknesses.

**Opportunities** in the world where the organization can benefit of their current strengths. Opportunities have to be identified, assessed, and finally a subset has to be selected to pursue.

**Threats** in the world, e.g. from changing markets or regulations, or from upcoming competition. Threats have to be identified and assessed, and, when serious, counter measures need to be formulated.

The SWOT analysis results in a "big picture" of the current situation that can be used as starting point for the formulation for a strategy.

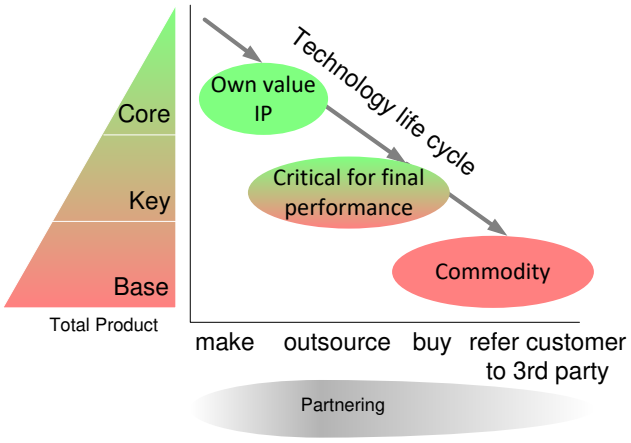


Figure 4: Core, Key or Base technology

One of the strategic choices is what a company will do itself and when it will rely on suppliers. There is spectrum of possibilities, from create and make it self, via outsourcing, to buy. Figure 4 shows a technology classification model to reason about these choices. The decision how to obtain the needed technology should be based on where the company intents to add value. The technology classification model uses *core*, *key*, and *base* technology:

**Core** technology is technology where the company is adding value. In order to be able to add value, this technology should be developed by the company itself.

**Key** technology is technology which is critical for the final system performance. If the system performance can not be reached by means of third party technology than the company must develop it themselves. Otherwise outsourcing or buying is attractive, in order to focus as much as possible on *core* technology added value. However when outsourcing or buying an intimate partnership is recommended to ensure the proper performance level.

**Base** technology is technology which is available on the market and where the development is driven by other systems or applications. Care should be taken that these external developments can be followed. Own developments here are de-focusing the attention from the company's core technology.

# 4 Examples of strategic choices

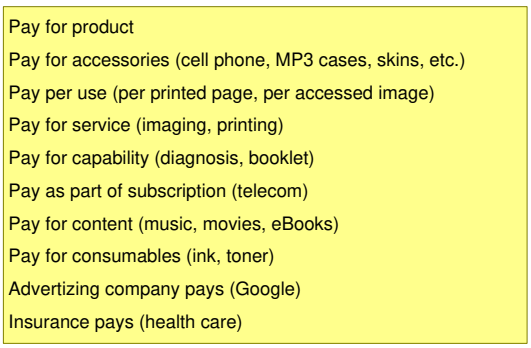


Figure 5: Examples of Business Models

Figure 5 shows a list of *business models*. Every business model has specific characteristics in terms of capital use, return on investment, recurring revenues, variability over time, and margin. At the other hand will the business model have significant impact on the product specification, design choices, organization, staff, and processes.

The position in the value chain is also a strategic choice. Figure 6 shows an example of value chain. Companies that stay at the same position in the value chain must protect their margin by excellence in that position. The risk is that "lower" positions in the value chain get commoditized, meaning that the margin gets small or negative. Many organizations address this margin problem by trying to rise in the value chain or by expansion in the value chain.

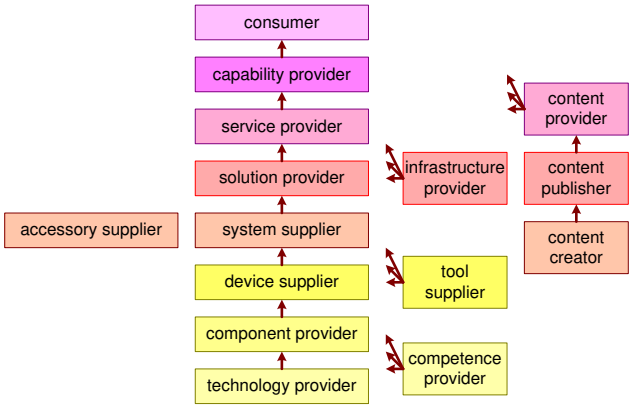


Figure 6: Where in the Value Chain?

The choice of the business model and the position in the value chain are primarily business decisions. However, these decisions do have such large impact on the architecting that architects should be involved in the decision making. The consequence for the architects is that they have to participate in a largely financial and economical discussion about the business.

# 5 Innovation

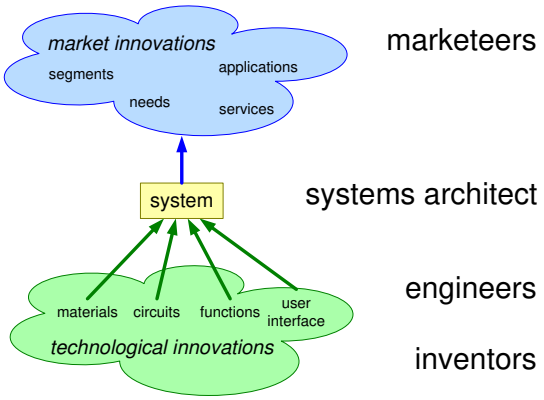


Figure 7: Innovation requires all major contributors

In many organizations the holy grail of strategy is *innovation*. *Innovation* is is a fundamental way to increase the value proposition to the market. Companies have a continuous need for a better value proposition in a world with constant pressure

on the margin. The alternative to maintain the margin at an healthy level is to reduce cost levels.

Most (mature) organizations achieve the desired improvement of the value proposition by repetitive small improvement steps. However, many small steps often do not open new markets, or create new applications. *Innovation* is the result of a creative effort both in the technology side, as well as the application and marketing side. Figure 7 shows that a concerted effort is needed of truly innovative technology people ("inventors"), engineers, architects, and marketeers.

There is a tension between processes and management and innovation. The inherent nature of innovation is to go beyond today's limitations, while processes and management also tend to enforce limitations. Innovation requires inspiration rather than control. This same tension can also be observed in the architecting role. Many architects are used to identify and mitigate risks, a valuable contribution to product creation. However, the risk based focus can be a severe limitation when searching for innovative solutions.

# References

[1] Gerrit Muller. The system architecture homepage. `http://www.gaudisite.nl/index.html`, 1999.

**History**

**Version: 0, date: July 8, 2010 changed by: Gerrit Muller**

- Created, no changelog yet