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Feature Article



The Convergence of Service-Orientation and Business Strategy

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Abstract: *In my last article ([SOA and the Core Competency Model: A Business Perspective for Realizing Competitive Advantages](#)), I introduced the core competency model, and discussed how the application of service-oriented design principles to administrative processes within the enterprise allows for this model to leverage market-based economies of scale and benefit from improved business focus.*

The core competency model, however, is only one form of corporate strategy and certainly not the only way service-orientation can deliver significant competitive advantage. At the other end of the spectrum are differentiation-based strategies. Where the core competency model focuses on doing things more efficiently than market rivals, a differentiation-based strategy focuses on doing things differently (or doing different things) than market rivals. In this article, we will expand our discussion beyond the core competency model to explore differentiation-based strategy, and consider the linkage between an organization's strategic posture, and its approach to service-orientation.

Introduction: Cost-based Strategies vs. Differentiation-based Strategies

The core competency model seeks to improve competitive positioning through improved operations efficiency. More efficient use of resources translates into lower production cost which is passed on to the consumer in the form of lower prices or improved value, (i.e. *the same for less, or more for the same*). In this sense, the core competency model is a cost-based strategy. If an enterprise can lower its cost relative to its competitors, it will realize a significant competitive advantage.

The problem with cost-based strategies is that they are often easy to imitate, and therefore the competitive advantage that accrues is difficult to sustain over an extended period of time. If, for example, an organization lowers its costs by leveraging market offerings for administrative support functions, its rivals can imitate this leaner organizational structure. They may of course have to contend with the tight integration and lack of modularization in their internal processes which will result in high switching costs that partially or wholly offset the near-term benefits (recall here the value of applying service-oriented design principles to transforming internal business processes). Nevertheless, cost-based strategies have a tendency to drive market convergence around a set of activities and business structures that represent industry "best practices". Convergence steadily erodes the competitive advantage of the low-cost competitor to a point of cost parity among industry rivals.

A differentiation-based strategy depends on unique positioning and value proposition within an industry, which is the *cumulative* and *synergistic* effect of doing things differently or doing different things than market rivals. Differentiation-based strategies tend to be much more difficult to emulate, as they tend to not only promote strong brand recognition among consumers (the effect of being different) but more importantly because they are often based on a set of activities, structures, management practices, and culture optimized around their unique market position. Emulating this position would involve wholesale changes by market rivals at every level of their organization. Because of the difficulty in emulating them, differentiation-based strategies can lead to *sustainable* competitive advantage over market rivals.

The Cost/Quality Frontier

The decision to pursue a cost-based or differentiation-based strategy is in large part determined by prevailing market conditions. A cost/quality curve is useful in modeling these because it posits a direct correlation between quality and cost in a given industry (Figure 1). Increased quality is more often than not followed by increased cost. The perfect correlation between these at the boundary of this curve is termed the cost/quality frontier. Enterprises offering products and services closest to the boundary of this curve represent industry best practices in operational efficiency – that is, they are the low-cost producers for a given standard of quality.

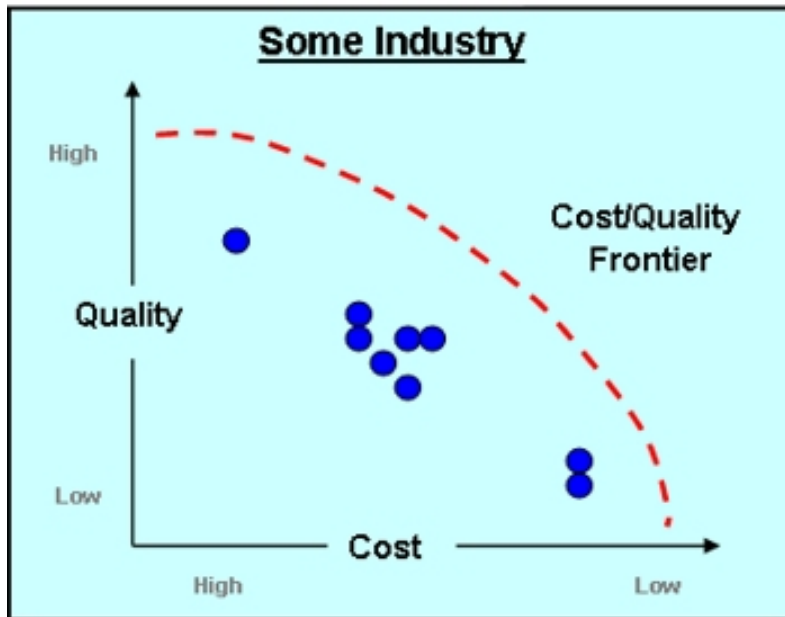


Figure 1: The common cost/quality frontier for just about any industry.

Often an organization that has successfully executed a low-cost strategy in a given market may choose to expand horizontally into other areas, thereby leveraging its intellectual capital and internal capacity to establish new standards of operational efficiency and competitive advantage in another industry. We would represent this by adding a new data point at the appropriate quality standard closer to the cost/quality curve in Figure 1. Alternatively, technological innovation within an industry may be the source of improved operational efficiency that again will provide a source of competitive advantage. We would represent this by shifting the curve upwards demonstrating a change in the cost/quality boundary.

The gap between existing competitors and the theoretical cost/quality frontier represents opportunity to develop competitive advantages through a cost-based strategy. Often, where limited competition in a given industry due to the strength of entrenched competitors has prevailed for an extended period, operational efficiency tends to stagnate, and over time significant opportunity to develop competitive advantage through cost-based strategies accrues.

Alternatively, in mature industries marked by extremely competitive markets, organizations tend to cluster close to the cost/quality frontier, at various watersheds along the quality axis, i.e. low, medium and high. Competition within these watersheds is largely based on cost, as cost-based strategies are easier to identify, execute and emulate. Under these conditions, there is limited opportunity to generate cost-based competitive advantage through improved operational efficiency. There is often however significant opportunity for a differentiation-based strategy that targets points outside the established watersheds on the quality axis.

Executing a Differentiation-Based Strategy

The differentiation-based strategy creates a new market position and value proposition outside of established competitive watersheds. The new positioning arises from a broad set of organizational activities that are performed differently or a set of different activities that are not performed at all by the competition. If the cumulative and synergistic effects of these differences resonate with consumers, the result is a differentiation-based competitive advantage that is difficult for rivals to emulate.

Executing a differentiation-based strategy involves a series of cost/quality trade-offs that collectively define the new market positioning. Take for example IKEA's positioning in the home furnishings market. Traditionally, consumers have visited furniture stores where a sales agent escorts them through a showroom of furniture offerings from various manufacturers, helps them browse through a variety of styles, fabric swatches, wood stains, etc. often comparing with wall paper and rug samples from the residence as part of an overall design consultation. Once selected, an order is placed with the manufacturer and the furniture is delivered and set up at the residence several weeks later.

This highly personalized approach to home furnishing resonates well with consumers who are less price or convenience sensitive. IKEA recognized that there was a consumer group who were more interested in well-designed "functional" furniture and were willing to forego the personalized service for convenience and value-based pricing.

To deliver on this positioning, they made a number of cost/quality trade-off decisions:

- First and foremost, final assembly of much of the furniture has been offloaded to the consumer. This is essential to their value-based pricing strategy, as they can avoid the added cost of assembly, reduce the cost of warehousing, and eliminate the need for specialized delivery vehicles to transport the furnishing from the store to the residence. To facilitate this, IKEA designs and manufactures much of its own furnishings so they can *design-in* ease of assembly into their product lines.
- Secondly, the number of design options is severely limited – it comes in dark or light stain, not maple, ash, oak, cedar, butternut, etc.
- Thirdly, the store is configured to promote consumer self-service. For example, furniture types are displayed in their natural room settings from kitchens to living rooms, to bedrooms to help consumers envision the furnishings in their own living space, eliminating the need for design consultation. A warehouse at the back of the store provides consumers immediate access to the unassembled products that they can transport home with the family vehicle.

The success of IKEA, and the absence of successful imitators in the home furnishings market is testimony to the competitive advantage realizable through a differentiation-based strategy. Recognizing that the existing market offering based on personal design consultation and made-to-order inventory was over-designed relative to the needs of young families, IKEA developed a unique set of services optimized around a new market positioning. The services they created are the embodiment of the IKEA strategy. To be more to the point, the set of customized services do not enable the strategy; they are the strategy. It is the result of strategic thinking around how the enterprise can differentiate itself from its rivals, and in doing so appeal to a consumer segment that is not well served by current market offerings.

Convergence of Service-Orientation and Strategy

The set of customized services do not enable the strategy; they are the strategy. This is an extraordinarily provocative statement when considered from the perspective of service-orientation. This statement highlights the convergence point between business and IT, and an evolutionary watershed marked by the permeation of technology within business to the point where it no longer makes sense to separate them (Figure 2).

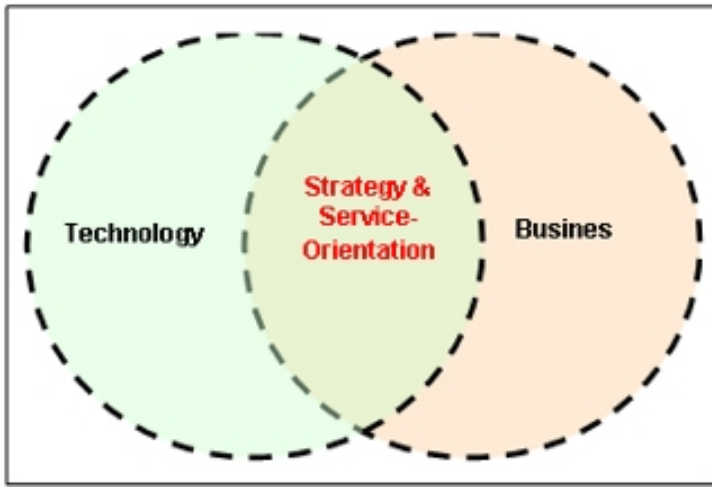


Figure 2: Convergence of strategy and service-orientation

One of the most common points of discussion in the SOA arena surrounds the question of what services should be included in an enterprise SOA implementation. Answering this question requires a Copernican shift in thinking. Service-oriented design for the purpose of creating efficiencies in the development and maintenance of IT systems is a bit like using a laser to slice toast – it works, but the real strategic value is under-exploited.

How you think about service-orientation, and ultimately the design and implementation of a service-oriented architecture is in some sense the equivalent to how you think about your organization’s competitive strategy, and how to organize and execute against it. These are, in the final analysis, the same – and must be if the organization is to succeed. Cost-based strategies produce certain organizational designs, while differentiation-based strategies lead to others. Cost-based designs tend to converge around best-practice patterns. Differentiation-based designs tend to be highly customized. These of course represent opposite ends of a spectrum with an endless array of possibilities between. Now if your first instinct is to replicate “best practice patterns” for the implementation of service-oriented architecture in your organization – stop for a moment and think about it from a business strategy perspective.

	Organizational Design	Service Design
Cost-Based Strategies	<ul style="list-style-type: none"> - Convergence on best practices at watersheds on cost/quality frontier - Value chains formed through market-based horizontal integration 	<ul style="list-style-type: none"> - Convergence on best-practice service designs - Web-service value chains formed through market-based orchestrations and compositions
Differentiation-Based Strategies	<ul style="list-style-type: none"> - Unique business models optimized around unique market positioning - Vertical integration of resources and capabilities representing <i>strategy in action</i> 	<ul style="list-style-type: none"> - Unique set of services developed around unique market position - Vertically integrated set of services through internal orchestrations and compositions

Table 1: Strategy, Organizational and Service Design

What services your enterprise should develop will depend entirely on your business strategy because in a pervasively wired world it is your business strategy. If your strategy is to compete on costs, you should be thinking about services from a core competency perspective. If your strategy is differentiation-based, you will need to develop a set of highly customized services optimized around your unique value-proposition.

Strategic Thinking and Strategic Planning

Having argued that an SOA implementation is as much about business strategy as it ever was about IT, and that the separation between these two is somewhat meaningless in a pervasively wired world, it is useful to close out this piece with a quick primer on the how-to of strategy.

Creating a good strategy requires *strategic thinking*. Executing a good strategy requires *strategic planning*. The first is

an inductive, synergistic, creative exercise and the second is an analytical deductive exercise which fleshes out the implementation details of the strategy.

Strategy in itself is fundamentally an *adaptive* reflex. In other words, an organization is reacting to real (or anticipated) changes in their environment, whether sudden, or built up over time, which represents a threat to their current quality of life or an opportunity to improve it. The starting point then is the environment, for which there are a number of tools and methodologies that are useful in gathering and organizing information. This exercise is often referred to as an environmental scan. The purpose of the *environmental scan* is to establish the strategic context within which the organization must adapt. The strategic context may have a number of dimensions – typically, the *political, economic, social and technological* dimensions are assessed.

Returning to the IKEA example, their differentiation-based strategy capitalized on changes to the social and economic dimensions of their environment. The strategic response was to invent a new position within the home furnishing marketplace through a highly differentiated set of services.

The take-away here, is that when thinking about what services to include in your SOA implementation, think about it strategically. That is, instead of starting with an internal assessment of your as-is architecture, start with your external environment to develop a clearer understanding of the *strategic context* to which you must adapt. Consider what opportunities exist to improve your competitive positioning and what threats are on the horizon that may erode your current positioning.

With an understanding of your surrounding environment, you can shift focus to an *internal assessment* of organizational strengths and weaknesses relative to this strategic context. Internally, an organization is composed of *resources and capabilities*. A resource is something tangible that is used in the value-creating processes of an organization. Examples would include cash, machinery, information, infrastructure, raw materials, labour, etc. Capabilities refer to the ability to combine and integrate resources in useful ways to create new or enhance existing value propositions.

Information systems and related technology infrastructure are organizational resources. The orchestration and composition of these to create new and enhance existing value propositions are important organizational capabilities. The internal assessment of your organizations strengths and weaknesses relative to the opportunities and threats in its competitive environment would necessarily consider these resources and capabilities as part of a strategic approach to your SOA implementation.

Conclusion

At this point you now have three influences that should guide your strategic thinking:

- First, you have a general understanding of the difference between cost-based and differentiation-based strategies.
- Secondly, you have a clear understanding of your competitive environment and the threats and opportunities to improve your competitive positioning moving forward.
- Finally, you have assessed your internal strengths and weaknesses that will determine the ability of your organization to capitalize on emerging opportunities, or defend against emerging threats in its current state.

With this, you are well positioned for the synthesis of these three influences (Figure 3) and the hallmark of strategic thinking. As a result, the make-or-break things your organization must do (strategic objectives) and what corresponding services you should define in your SOA implementation will become more clear.



Figure 3: Forming a business strategy.

Undoubtedly, there is always some linkage between IT and the business. What this article has been advocating is a clear break from the traditional approach that starts with a well-formed business strategy that is interpreted into a lengthy set of business requirements which are subsequently translated into system designs. It is time for the IT folks to get out of the basement and get into the boardroom. In a wired world, service-orientation is the business strategy and service-oriented architecture represents the organizational design and execution of that strategy.

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