Taking Control of Complexity
The essential ingredient for profitable growth
Companies are always on the lookout for the next big growth opportunity—exploring new channels, adding new products or developing new markets. As they should. Growth, after all, is the single biggest success factor in today’s business environment.

There are ample opportunities to grow. Globalization brings new and exciting markets within reach. Supply chains are extending into all corners of the world. Consumers and customers are anxious to absorb every new product or service even as they scramble for more and better customized offers.

It should be no surprise then that companies pay a high price for pursuing growth opportunities. The price? Excessive, extensive and out-of-control complexity.

Product and service portfolios are exploding, processes and systems are proliferating, and organizational structures and interfaces are becoming increasingly convoluted and problematic. Complexity not only represents extreme inefficiency but also (and this is worse) prevents companies from pursuing their growth efforts.

Complexity must be controlled so companies have a clear path to the next growth frontier. In our work helping companies deal with their complexity challenges, we know that controlling complexity requires the following (see figure 1):

- Adopt a strategic view on complexity
- Create the appropriate transparency
- Take a comprehensive perspective
- Install the right processes and governance to ensure sustainable results

The results can be dramatic. Companies that adopt these measures can reduce their product...
portfolio by 20 to 40 percent, shrink material and supply by up to 30 percent, and eliminate redundant technologies. Indeed, entire production lines or even facilities can be closed down. The total impact for companies that take strategic control of their complexity—a 3 to 5 percent rise in EBIT (see figure 2).

Let’s discuss each attribute in turn.

Adopt a Strategic View

Complexity is sometimes referred to as either good or bad. Good complexity is when the value created is more than the costs incurred; bad complexity is when the value created is less than the costs incurred (and should be addressed so as not to obstruct a clear path to growth). Yet controlling complexity requires more than simply defining it as good versus bad. It is better to think in terms of the value-adding variety and the cost of complexity. The former should be maximized, the latter should be controlled. Always.

There is a structural component to how companies control complexity. Apple and Bang & Olufsen, for example, hold a tight rein on the variety of products they offer to the market. Dell Computers also controls variety. Companies such as Snapple offer an overwhelming variety—and are able to do so because they have adapted their delivery systems accordingly. Meanwhile, the automakers appear to create variety while minimizing the variety within; the kind consumers cannot see.

No amount of control will succeed if there is a disconnect between a company’s business activities and its structural setup for controlling complexity. For the Apples, Dells and Snapples of the world, controlling complexity is a fairly straightforward effort. However, for companies with a broader scope of activities, the challenge is to define the appropriate complexity control systems and apply them to the right parts of the business. The disconnect for these...
firms often occur gradually as they try to meet ever-increasing demands from consumers and customers amid ever-expanding business activities.

For these companies, success depends on first establishing the appropriate organizational structure and then, and only then, focusing on controlling complexity effectively. Meeting customers’ increasingly divergent expectations requires multi-specialized value chains. The old one-size-fits-all value chains and complexity control regimes must be specialized toward multiple, internally consistent setups (see figure 3).

Create the Appropriate Transparency
Growth is addictive and unless companies see the consequences of their addiction—complexity—they will remain in denial. The trouble is, complexity is not always easy to see or to track. Often the consequences of complexity are known only at aggregate levels, for example, when the company finds it is no longer cost competitive. At a more detailed level, however, complexity becomes evident often in a proliferation of products and services and the subsequent loss of revenues and margins. Unless executives fully recognize the consequences at a detailed level, complexity will be difficult to control.

But obtaining a detailed view of complexity is not easy. It requires an enterprise-wide view into a company’s data systems and processes. Information has to be unambiguously linked to understand how complexity manifests itself across the entire value chain. Regrettably, more often than not the

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required data is either buried in systems residing in different departments or missing altogether. Even ERP systems are no guarantee that transparency can be readily created as disparate data indices prevent an integrated perspective.

Clearly, there is no silver bullet for creating transparency. The only real option is to create as much transparency as effectively as possible. A.T. Kearney has developed a multi-cube data model that facilitates the creation of transparency in a systematic way. We draw on our cumulative experience helping companies create the appropriate transparency—all the way down to the SKU level if necessary (see figure 4).

Comprehensive: Take a Total Value Chain Perspective

Complexity is one of the biggest cross-functional challenges a company faces. We asked one executive at one company for his view on complexity. “It seems there is a hole in our complexity control fence,” he told us. “When we press on complexity on one end it slips through the hole to pop up at the other end.” To control complexity in any meaningful way, we recommend taking a total value chain perspective—even including parts of customer and supplier value chains (see figure 5). In other words, a total value chain perspective will ensure what we mentioned earlier, that the value of variety exceeds the costs of complexity.

Install the Right Processes and Governance to Ensure Sustainability

As important as getting complexity under control is to keep it under control. Doing so requires a number of measures around governance, decision-making and organization.

Figure 4
Build a multi-cube data model to create transparency

![Figure 4 - Build a multi-cube data model to create transparency](Image)
Because complexity is cross-functional—
even extending into supplier and customer value chains—it is also ownerless. In fact, the only real owner is often the CEO or management team. But they cannot spend their time running around making decisions about controlling complexity. As a company’s appetite for complexity reduction wears off—which will happen—executives need a process and governance in place to control complexity continually and manage decision-making effectively.

The measures already discussed in this paper will contribute to effective governance. For example, transparency along the entire value chain will help control complexity as will ensuring that the entire company is involved in the right way. However, the biggest success factor in dealing with complexity is having the appropriate control systems—those that provide a clear context for decision-making and governance structures. For example, in zero-tolerance complexity environments such as commodity products, the decision-making center of gravity resides close to production. In highly innovative and differentiating business environments such as consumer electronics, the center of decision-making is closer to strategic marketing (with production providing the necessary transparency in a complexity-to-cost analysis to allow decision makers to choose the correct trade-offs).

**Taking Back Control**

Gaining sustainable, strategic control over complexity is hard work that takes considerable patience and continual attention from the top. Results, after all, will only be sustainable if production lines are closed, products are culled, processes change and behavior adapts. Yet few would argue that pursuing these goals and gaining strategic control over complexity is one of the most effective ways to boost long-term profitability and growth.

**Figure 5**

Complexity affects every stage of the value chain
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A.T. Kearney, Inc.
Marketing & Communications
222 West Adams Street
Chicago, Illinois 60606 U.S.A.
1 312 648 0111
e-mail: insight@atkearney.com
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