Wilson Perumal & Company

Spotlight

Complexity Cube

What is the Complexity Cube?

The Complexity Cube is a simplified model of an organization and one which helps to frame and illuminate the types, interactions and impact of complexity. Consider how in any company there are products and services offered to customers, processes to support the delivery of these products and organizational assets required to support these processes. Each of these represents a dimension on the Complexity Cube and a source of complexity.

Companies are therefore faced with three types of complexity - the dimensions of the Complexity Cube:

- **Product & Service Complexity** – the variety of products and services offered to customers
- **Process Complexity** – the number of processes, steps and handoffs needed to deliver products
- **Organizational Complexity** – the assets, functional groups and systems to execute processes

While complexity can be measured along a single dimension (e.g., the number of products offered), complexity costs do not reside along the individual dimensions - they reside on the faces of the Complexity Cube where those dimensions interact. From a cost perspective, product complexity is meaningful only with respect to the associated organizational and process-related complexity it engenders. Efforts targeted at a single dimension recognize neither the nature of complexity nor the source of its costs. Such efforts – For example, SKU rationalization efforts that do not recognize the interactions between products and the processes that deliver them will have inferior results because the sources of cost will remain untouched.

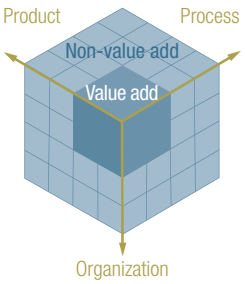

Figure 1. Complexity Cube

Why is the Complexity Cube important?

The Complexity Cube is useful as it underscores the elements central to understanding complexity:

- Complexity exists along multiple dimensions (product, process and organization)
- Complexity costs result from the interactions between those dimensions
- Complexity costs grow geometrically

It is also a useful framework to help companies align on which is the largest area of complexity in the business, i.e., which face of the cube should be addressed first.

Example of how the Complexity Cube is used

A consumer goods company used the information in Figure 2 to identify and prioritize the root causes of their complexity-driven issues and determined the product-process face should be addressed first. *Waging War on Complexity Costs* lays out specific battle strategies to leverage, depending on which face of the cube offers the largest opportunity for improvement.

Type of Complexity	Symptoms
Product/Process	• Frustrated customers • Long lead times/queues • Many unprofitable products • High inventory levels • Product shortages • Product surpluses/ markdowns • Frequent changeovers/ eroded capacity • Service/quality levels below par
Process/Organization	• Poor customer service levels • Complex, bloated organization (no one sees the complete picture) • Lots of activity but not much outcome • Poor product availability • Difficulty seeing or managing trade-offs across functional boundries • Complex systems impede processes & decision making • Slow decision-making and information flow
Organization/Product	• Marketing and sales efforts diffused over products/geographies • Tangled web of IT symptoms • Sprawling physical footprint with poor asset utilization • Operations struggles to keep up with the 'cats and dogs' of the product line • 3rd party distributors resist efforts to focus the product line • Efforts to consolidate network stymied by current needs

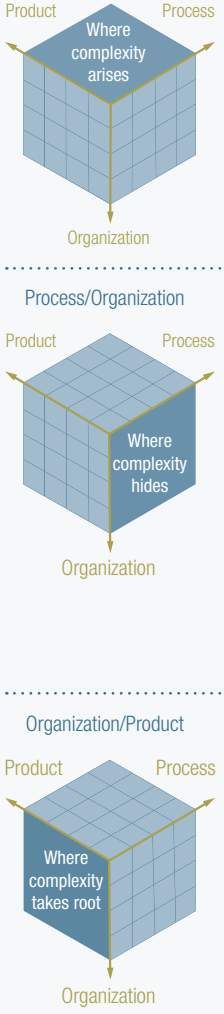

Figure 2. Types of Complexity and Associated Symptoms