



How Complexity and Clutter Can Take Over and Ruin Your Business

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When it comes to freedom of choice, could less be more? Today's globally networked economies offer consumers more power than ever before — enabling them to compare dozens of options and prices at the click of a mouse. But as companies respond to such opportunities by dramatically expanding their menus of products and services, they are being dragged down a slippery slope of business complexity that could eliminate the gains. In fact, a new book titled, *Conquering Complexity in Your Business*, suggests that in many cases both business providers and consumers could benefit from fewer choices.

Written by Michael George, CEO of the Dallas-based consulting firm George Group, and by Stephen A. Wilson, director of the firm's Conquering Complexity practice, the book argues that organizations pay a price for diversifying their product or service portfolios beyond a point.

In the case of individuals, the phenomenon is easy enough to spot. Highly motivated individuals often add task upon task upon task to their responsibilities, but eventually they become dysfunctional because they try to do too many things with too little time to do any of them well. Organizations are vulnerable to the same creeping malaise. Complexity, or clutter, eats away at profits by diverting scarce resources and by masking true profitability. In a recent conversation, [Eric Clemons](#), a Wharton professor of operations and information management, spoke with *Complexity* co-author Wilson and Matt Reilly, a George Group vice president of client services, about how complexity can sap a company's business and how the problem can be overcome.

Clemons: Let's start by defining complexity—what is it, in the context of your book?

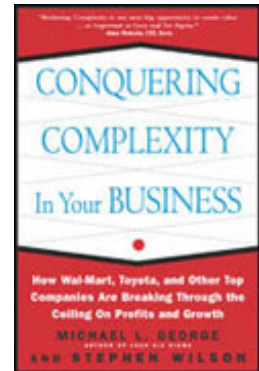
Wilson: Complexity refers to the mixture of products, services, features and options that a business puts on the market. When a company's menu of goods and services is out of step with the market, customers won't benefit from or pay for the excess. Complexity needs to be recognized and managed, which begins with quantifying its impact and cost on the business.

Clemons: So complexity is not the same as having a diverse portfolio?

Reilly: That's correct. It is related, though, in that complexity involves having an excess of products, services or offerings for which customers are not rewarding you.

Clemons: So complexity is clutter, which by definition does not deliver value. It can be too many price points, too many line extensions, or other goods and services that don't add value to customers. How does it occur?

Wilson: Complexity is a systemic effect that accumulates over time. So while you may have a perfect portfolio today, your customers' tastes are changing—what's good today is probably not good tomorrow. Many businesses respond by expanding their portfolio and placing more goods or services on the market. Each innovation may represent a source of customer value and profits at the time that it is introduced, but unless you have some mechanism for rebalancing that portfolio, complexity will creep into your



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processes, tax internal systems, and drive up costs. Even worse, you might strangle growth in the name of pursuing customer value.

Clemons: We could say that clutter, like toys in an attic, accumulates over time. In a company it grows because companies tend to favor launching new lines, but nobody wants to champion killing old products or services. The problem is that clutter is not free. It interferes with operational efficiency, with production efficiency, with a clear image, and with distribution.

Wilson: That's accurate. Also, it consumes resources and can impede growth. If you have a portfolio of 4,000 products, you're spreading your marketing resources across all those products, when you should be concentrating on core brands. We also find in our work that companies with a complex product or service line have a significant gap in their understanding of what truly drives their profitability. What's important is that companies understand the relationships between complexity, cost, efficiency and growth, which we captured in a concept called the Complexity Equation. Management can then make rational decisions with these relationships being explicit, instead of implicit or unknown.

Clemons: It's like carrying an extra 40-lb. load on a bike ride, or a heavy backpack on a hike. But it's not always as obvious, right? The cost of product complexity may not show up in product cost. Instead it may appear in sales and marketing.

Wilson: Sometimes it's difficult to identify complexity. In a product-based company you can see the results of complexity, like a big warehouse of parts or finished goods. But it can be harder to spot in a services environment.

For example, in recent years, many financial services companies saw a tremendous growth in revenue accompanied by deteriorating profitability. What was behind the drain on profits? In one case, a company had 5 million different configurations for one line of service; quality was going down, but because the complexity was not visible in a warehouse of parts, the business just assigned more people to the lines—and the additional cost was shifted to overhead, masking the true cause of the problem. So companies should look at profitable growth, not just growth. Of course at the same time, there's often inertia against change. Management may ask, "Do we want to tinker with our legacy?" But the bottom line is if your legacy is destroying the value of the company, you have to ask the hard questions.

Reilly: Clutter adds no value. To use the backpack analogy, each item added might make sense by itself, but overall the clutter slows your journey. For example, we know of a healthcare company that experienced a tremendous proliferation in one of its offerings. Until now the firm has offered to customize contracts for almost everyone who asks, but it is now asking about the value of saying "no." It is crucial to understand this effect on a company's profit margin, what the cost is of each of these customizations, and to determine if the proliferation actually delivers value.

Clemons: Why is complexity an issue now, instead of 10 or 15 years ago?

Reilly: Today, the macroeconomics are different. A few years ago companies were focused on maintaining share in a very tough environment. Now there may be an opportunity to pursue profits by cleaning up the effects of diversification. Another dimension is the wave of merger and acquisition activity that forces companies to deal with consolidation of products and their sales forces and to develop a new and tighter footprint. That also drives the tension.

Clemons: Why is clutter negative for customers? What's the strategic impact of complexity?

Wilson: Clutter creates more barriers between you and your customer. From the customer's point of view, a cluttered portfolio means you don't truly understand your customers' needs, so you're likely to

over-proliferate. That can be frustrating for a customer. For example, one study shows that customers would pay an 8% premium for a simpler consumer experience, and 50% would switch brands for it. Regarding the strategic impact — if a small proportion, say 5% to 15% of a portfolio drives most of the value of a business, then an inability to understand the driver is an inability to guard or nurture that small percentage of products driving value. That's a big strategic risk and can leave a company vulnerable to disruption.

Reilly: For example, an industrial products company had a very complex product portfolio – but it didn't grasp the true profitability of its products. When the company analyzed the situation, the analysis showed that complexity-related costs were consuming about 7% of total revenues, which is significant. One benefit of understanding complexity is the ability to understand the true cost of the services that you're providing and where to go to recapture the value.

Wilson: Complexity has three distinct impacts that lead to a competitive disadvantage. The first impact is costs that are not being rewarded in the marketplace. The second relates to focus, since complexity distracts a company from zeroing in on key areas of growth that generate most of the profits. Finally, complexity directly impacts processes, adding costs and consuming resources that should really be directed towards growth opportunities.

Clemons: We could say then that complexity strangles a company. But why are there 20,000 price points in the credit card segment instead of only one? Why did a Federal Reserve study document product proliferation in industries that range from hi-tech ones like auto electronics to low-tech ones like Pop Tarts? My own research indicates that Power Bars alone accounted for 240 SKUs (Stock Keeping Units). When is complexity a good thing?

Wilson: When it creates a profit for the company.

Clemons: It appears that bad complexity leads to more costs, but good complexity promotes profit. It sounds a lot like cholesterol, with bad and good densities. Are there metrics for good densities and bad densities of complexity? And how do you differentiate between the two?

Wilson: The bottom line is that you have to understand if your complexity is creating economic value or not. Most companies don't have a clear understanding of the profit contributions of their products, goods or services.

Clemons: When you look at a firm, how do you know which complexities add value and which do not?

Wilson: We engage in a process-based review of product or service profitability. In this we use a variety of tools, including a Complexity Value Stream Map and the Complexity Equation that help us to gain an understanding of process cycle efficiency, how it is affected by various products and services, and how it drives profitability.

Clemons: Let's take a top-level look at some examples. We could say that at General Motors complexity springs from the company's "starter car" philosophy under which customers were expected to start with Pontiac and then graduate to an Oldsmobile. Feeder routes on airlines also represent complexity. Learning about customer behavior can be an example of complexity since it only makes sense if you know what you will do with the information later. Instead of looking at a product or service in isolation, consider it as part of the entire cycle of production costs, and the nature of the customers who use the offering, and their behavior over time. It's a comprehensive map of products and processes. But how do you balance complexity?

Wilson: It's an ongoing battle. Some companies have the culture required to conquer complexity and to

achieve balance, but most do not. Our book, therefore, focuses on institutionalizing that ability so it's present on an ongoing basis and can respond to ever-changing markets.

Clemons: Let's return to the cholesterol analogy. People who watch their cholesterol never really get an opportunity to stop. They may achieve an acceptable range, but they need to keep watch over time. So part of the balance is to go in and reassess your situation constantly.

Reilly: That's right.

Wilson: An examination of the culture, incentives and infrastructure of the organization is also a component of a long-term balancing process. If you are rewarded for proliferating products, then you're likely to keep churning out complexity that doesn't drive value creation. The balancing effort is not just a one-time event, but involves an understanding of what keeps creating complexity in organizations. We help clients learn to balance the portfolio of products and services that will be offered to the marketplace.

Clemons: How much of your optimization effort is scientific, and how much is art?

Reilly: Walking through the Complexity Value Stream Map and understanding process cycle efficiency are quantitative exercises. But developing the discipline to achieve success in the marketplace involves a bit of art. This two-pronged approach goes back to what often drives complexity: a break in the link between strategy and execution. For example, one company has committed to Wall Street that it will meet certain levels of economic performance and profitability — but the firm's business units are still driven by revenue metrics. So while the science involves this firm learning how to better deliver on the economics and the profitability, the art lies in improving the connection between business units' leadership so everyone focuses on the same metrics.

Clemons: Let's look at some changes in the market. While trying to satisfy customers, companies may have added too much bad complexity that produced a high degree of consumer resentment and regret. If you have, say, 400 different telephone plans from which to choose, you'll be sure that the one you take is wrong, even though it's much better than the one you just left. It appears that we had a period of portfolio growth for its own sake, but now need to rationalize for customer satisfaction, for provider cost, and for quality.

Wilson: Marketing used to be based on the premise that more choices were better for customers. Now they want fewer choices, and are willing to pay a premium for the good ones. Nissan used to offer 87 varieties of steering wheel, but no customer wanted to weed through all those choices. The market has gone from "more is better" to "less is more."

Clemons: For whom was the book written?

Wilson: It's for a C-level audience or someone with a cross business view. It's for companies that understand the issues of complexity and want to institutionalize a process to address them, but don't have the corporate culture to do that. They want to know how they can develop a way to continually optimize the balance of products and services in the marketplace, and this book will help them to initiate the process.

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