Taming Complexity in Services: Stay Close to Your Customer (But Not Too Close)

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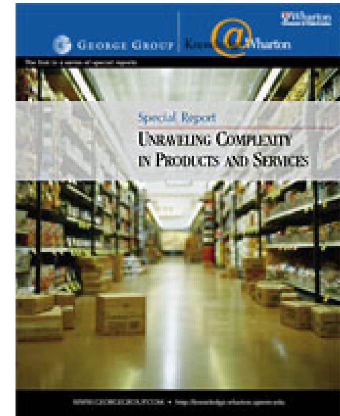

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When companies are looking to streamline services to drive more profit and growth, it's the bells and whistles -- those inessential add-ons that can potentially attract and retain choice-hungry consumers -- that are often the first elements to go. But Eric Clemons, Wharton professor operations and information management, is not so sure they are expendable in all cases. On a recent Delta Air Lines flight to Panama, Clemons was upgraded to first class. Once seated, he was surprised to discover the flight attendants in the first-class cabin didn't speak Spanish. So it fell upon Clemons -- and his rudimentary "Mexican-restaurant" Spanish skills -- to translate his fellow passengers' requests for dinner or to explain for the flight attendant that the airline didn't have pillows or blankets in first class on an international flight. "What do you think is going to happen? Of course they are in bankruptcy," says Clemons. The problem, he says, is not the bells and whistles themselves -- it's the way the company is going about solving the problem of complexity in its service offerings. "Solving complexity doesn't mean [eliminating] bells and whistles -- it means giving the customer a reason to buy your product."

Understanding complexity in an organization, especially for those in a service business, can become an exasperating experience. While companies increasingly respond to the need to streamline to drive profit and growth, they position themselves to deliver complexity wherever they find it is justifiable. According to experts at Wharton and George Group Consulting, an operations and strategy consultancy, service companies such as banks or airlines are closer to their customers than their counterparts in the manufacturing industry, which can be beneficial, but they may be too close for comfort. In fact, they could actually be smothering both themselves and their customers with dispensable or outdated offerings, made worse by overburdened internal processes that ultimately hurt the essential elements of survival -- customer service and satisfaction.

Recognizing Complexity

Complexity is not easy to recognize, and typically doesn't raise red flags in financial statements. Very few organizations successfully capture the costs of complexity in their standard accounting systems, says Stephen Wilson, director in George Group's Conquering Complexity Practice. Complexity may rear its head in customer dissatisfaction and defection, or higher inventory costs or increased manpower needs, but those problems aren't always traced back to proliferation. Wilson says many organizations lack a good perspective of their processes, allowing complexity to creep in from the sidelines.

"It's a bit like pollution," says Wilson. "It builds up over time, it's hard to see, but it definitely affects the overall health of the business. It's a systemic issue created by multiple people so no one person is really accountable." Incentives within companies to push revenue growth also drive complexity, Wilson says. "Organizations that are very revenue-focused often introduce new products or services without fully understanding the economic impact."

Proliferation comes in assorted disguises, but the most common is information, says Wilson. In other

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words, industries that have information as their key vehicle -- such as travel services -- tend to allow complexity to build up unnoticed. "Complexity in that sense has a relatively low cost," observes Wilson. "It could be the same with financial services too, although with the caveat that often there is a bigger impact on downstream administrative operations."

Wilson picks the financial services industry as a prime example of complexity that has gone unchecked. A decade ago, financial services companies had a relatively small portfolio of offerings, based largely "around manufacturing-type, assembly-line processes." But more and more customization and proliferation of services has taken place over the past 10 years. Wilson recalls a client from that industry telling him there were 5 million ways of configuring his company's services. "It puts the processes that deliver these services under huge stress and strain," says Wilson.

Wilson says the financial services industry is particularly vulnerable to complexity because "unlike in manufacturing, you can't see the warehouses." Companies typically hire more people to deal with some of the common unintended consequences of complexity, such as increased inefficiency and customer complaints, he notes. "This improves service in the short term but never gets at the heart of the issue."

New Services at the Press of a Button

Complexity also creeps into banks and other financial services companies because new offerings can be added at the press of an IT button. "The impact of complexity inside an IT world is near zero," says Wilson, "but the impact can be very high downstream on administrative services and customer service."

IT departments at companies that have grown through mergers and acquisitions face other problems as well, compounding the complexity. "It has been a very acquisitive time in banking," says Wilson. "Many of these home-grown IT systems tend to be cobbled together with more home grown systems, and you have a very big IT mess."

"In financial services, there is a widely held perception that complexity is free," says Matt Reilly, senior vice president, client services, at George Group. "In many service businesses, IT is king, and people feel if you spend more on IT, it's scalable." But, he points out, people elsewhere in the organization still have to go out and execute on those new offerings.

In the 1990s, large financial institutions used technology effectively to automate their assembly-line processes, but with short-lived success. Andrei Perumal, engagement director at George Group, says the era before the 1990s was "one of paper checks, one kind of checking account, and everyone got their services from their branch." He says an assembly line worked great so long as banks had one product and one distribution line. But as they introduced a myriad of new offerings in the 1990s, the old processes began to strain. "So banks started implementing exception handling and complex patch works of different solutions and systems," he says.

Perumal led a group that mapped processes at a prominent bank prior to joining George Group. In order to deal with the numerous variations in its loan products, such as various methods for calculating interest, the bank had created an overwhelming number of "workaround loops." "It's okay if it's one variation," he says. He found that over time, however, that there were more and more corrections and exceptions for such cases. "It gets to the point that exception handling becomes the norm," he says. "And then it gets to the point where it's not even clear what the original process was."

Perumal says the solution starts with reducing the number of inputs, be they businesses, product and service variety or channels to serve customers. The next step is to improve the processes to handle those inputs so they can better support legitimate variations. Reducing the number of channels is often not an option, he says -- a bank, for instance, will not suddenly decide to discontinue online banking. Pulling products or exiting businesses are also challenges, especially in banking. "What drives value to the

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customer is harder to discern in a service business such as banking" says Perumal. Therefore, the path with the least friction is towards building more robust processes.

In going about strengthening processes, Perumal says it is crucial to understand the customer correctly. "Oftentimes what the customers say they want is not what they are willing to pay for." But not all companies are equipped to get to that point. "If you have been divorced from your customer for years, you are not going to have an intimate understanding of your customer by doing a survey," he says. "You understand your customer with a day-to-day, across-the-organization culture of valuing and focusing on what the customer wants." Once a company gets a clear idea of what its customers want and will pay for, the solutions that emerge revolve more around reducing inputs into processes rather than making the processes more flexible, says Perumal.

In the world of financial services, the insurance industry has "inherent complexity," says Wilson, especially because of the different regulatory requirements in different states and countries. Even as the markets may be distinct from each other, companies don't always view them that way from a process standpoint. "These companies have grown over time, and their uniform processes are not designed to handle the very different demands of all the new categories in their portfolio," says Wilson.

Second-guessing Consumers

What exactly happens when a service company tweaks its service offerings, such as increasing or lowering its prices? Raghuram Iyengar, Wharton professor of marketing, examined that problem in an extensive study covering the wireless phone industry. In a 2005 working paper titled, "A Demand Analysis for Wireless Services under Nonlinear Pricing Schemes," Iyengar used data for one large national wireless services carrier covering 17 months between 2001 and 2003, and provided by the Teradata Center at Duke University. The study covered four pricing schemes -- plans with free minutes of 200, 300, 400 and 500, where additional minutes are charged at 40 cents each. Such a tiered tariff structure is nonlinear, Iyengar explains, because the consumer pays a different rate for each additional unit that is more than the up-front fixed access fee that comes packaged with free minutes.

Iyengar found that customer response to price changes (by staying on or defecting to rivals) varied according to their usage patterns, in ways that common sense may not fathom. For starters, it is useful to understand the service provider's stakes in the game. Wireless phone companies measure a customer's value by what they call the "lifetime value," or the charges customers pay during the length of time they stay with their service provider.

The key question for a wireless phone company looking to get bigger "lifetime" bucks from its customers is: Do I change the access fee or the per-minute rate after the free minutes are exhausted? Iyengar discovered that a higher access fee hurts light users the most, while a higher marginal rate hurts heavy users. In his model, customer retention suffers by 0.7% for every 1% increase in the access fee in the lowest-price plan. So, if customers on the entry-level $15 plan are asked to pay $18 for the same package, that 20% increase results in a 14% churn, or defection. A company with say, 10,000 customers at that lowest-priced plan, would see 1,400 defections if it were to increase access fees by 20%.

But a change in the access fee for the highest-priced plan did not exhibit a similar result. Iyengar found the defection rate to be 0.03% for every 1% increase at the top end. In other words, if an $80 plan increases by $10, that 12.5% increase would cause a customer churn of only 0.375%. Here, a company with 10,000 customers at that high-end plan stands to lose only 37.5 customers.

Many companies fall short in efforts to correctly understand customers as they try to rein in complexity, especially if it means pulling products and services or vacating unprofitable market segments. "Fearing a customer backlash, they will not do anything," says Wilson. Adds Reilly, "The problem is, a lot of

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companies feel beholden to the customer, and are afraid of their customer a lot of times." Some companies do overcome those fears and withdraw unprofitable offerings, however. "Companies that really take the time to say: 'I bet we can influence our customers to migrate to a standard offering' are actually reasonably successful," he says.

Further, Reilly adds, customers are often much more receptive to a simpler offering than company managements believe, so long as the execution of delivery and service is better. He adds, tongue-in-cheek, "There are very few customers who would say: 'I really like fact that you have this complex offering and I really enjoy the poor execution and the stock-outs and also enjoy the last-minute notice on no-shipment.'"

As with most such challenges, the impetus must come from the top. As Reilly takes on complexity-challenged clients, the question uppermost in his mind is: Is there a leadership team here that is willing to accept that being simpler and more focused is better for the consumer and actually drives growth? He talks of one such client he worked with in the financial services industry, whose CEO had publicly committed to fixing internal complexities. The company had been facing problems ranging from customer defection to revenue leakage, much of which could be traced to poor service.

Reilly saw divergent responses within the financial services company to the task at hand. While the sales and marketing departments embraced the idea immediately -- they were the first to feel the pain of customer defection -- there was "tremendous resistance" from some other parts of the company. At any rate, Reilly and his team started by checking the company's existing data on customer satisfaction, and filled in gaps with interviews of brokers, distributors and select customers. The solutions they suggested are still in the implementation stage, but results to date include a 50% reduction in customer attrition. "Service companies are generally closer to the customer, so they have a bigger opportunity to fix their complexity problems faster," he says.

Determining What Can Go

The process of "designing out" complexity that customers are not willing to pay for is illustrated in the book *Conquering Complexity in Your Business* (McGraw-Hill, 2004), co-authored by Wilson and George Group chairman and CEO Michael George. The authors track the case of Southwest Airlines vs. American Airlines over the past decade. While Southwest operates only Boeing 737 aircraft, American Airlines supported 14 different aircraft types, which also meant 14 spare depots, 14 versions of mechanic and pilot training, 14 kinds of FAA certification, and 35 different service configurations tailored to Asian and European markets.

American Airlines CEO Gerard Arpey acknowledged early on that "the cost of complexity isn't offset by what you can charge," noting that "One of the reasons Southwest is so successful is because they promise something very simple and they deliver that very consistently." Arpey methodically went about reducing complexity across his company, reducing fleet types from 14 to 6, and focusing on profitability rather than revenue.

The share prices of Southwest and American Airlines bear testimony to how complexity played out. Southwest Airlines' share price has risen over the past 10 years from levels of $5 to its end-2005 levels of $16 (although it touched $25 in 2001). American Airlines' share, by contrast, has been on a rollercoaster -- for seven years since 1996, its price more than doubled, only to go down in 2003 to under $2. It has since bounced back remarkably to about $22, clearly aided by Arpey's restructuring of his airline.

But Southwest clearly is not looking to appeal to all customers. "Southwest Airlines has a very simple product but they have a product that some won't touch," says Clemons. "There are ways of simplifying an industry by getting everything down to a standardized process for customers who don't care. And that's a pure cost play." Clemons, who didn't relish his experience on his Delta flight, adds, "If all airlines were

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like Southwest and all beers like Budweiser and all cakes like Hostess, the world would be a very uninteresting place."

How Complexity Can Work

Clemons says in today's marketplace, "meaningful differentiation, targeting customers' desires, cravings, and longings, is rewarded." A 2005 paper he co-authored with Rick Spitler and Steve Barnett titled, "Finding the New Market Sweet Spots: Creating Strategy in the Era of the Informed, Fickle Consumer" makes a compelling case for companies to pursue "resonance marketing." The authors say an offering that has a "fit with consumer cravings and longings, plus differentiation from competition, plus customer informedness, leads to resonance." Their promise: "The customer will pay for unique offerings that produce resonance. You will flourish."

"Brand management in the age of resonance marketing is about constantly deciding which brands to continue unchanged, which to modify, and which to discontinue," the authors say. "It is the consumers' response to our product, not our strategic planning efforts to position the image of our offerings that will determine our brand management strategy."

One of the most striking examples of how increased complexity pays dividends is that of credit card issuer Capital One. More than 10 years ago, credit cards were offered at a single, 19.8% interest rate -- no doubt an example of zero complexity. "Competitors acted like the market only needed one product to fit all risk profiles!" say George and Wilson in their book. They recount how Capital One saw an opportunity in that situation, and started offering interest rates based on the credit profiles of customers. So lower risk cardholders got lower rates, while high risk customers were either offered higher rates or denied credit.

Capital One didn't stop there; it invested in technology for its processes to deal with the added complexity, say George and Wilson. By the third ring of a customer phone call, the computer recognizes the customer's telephone number, identifies the most likely reason for calling, routes the call to the appropriate associate, and then populates the associate's computer screen with products and services that the caller may be interested in purchasing. The result of all that complexity: Capital One's business surged at a compounded annual growth rate of 40%, and it lured away the most profitable and low-risk customers from competitors. Five years later, its competitors were forced to fall in line, offering variable rates based on customer credit ratings.

Clemons argues that complexity can work in the airline industry where a carrier delivers exactly what the customer wants, and can extract a premium price for that offering. He talks of the recently launched niche airline Eos of Purchase, New York, which offers a service between Wall Street and London financial markets. (Eos chairman David Pottruck, chairman and CEO of Red Eagle Ventures of San Francisco, is a senior fellow in Wharton's Center for Leadership and Change Management.)

Eos's luxury service includes the works: Its Wall Street customers take overnight flights to get to their London trading floors by noon the next day, they can sleep en route on seats that fold out as beds, eat in the airline's exclusive lounges and if they want, stop over briefly at the Four Seasons for a shower. And of course, the airline staff will be happy to book you a restaurant table from the plane, its concierge will get you theater tickets, and if you happen to need a translator in Brussels, no problem. Eos charges $5,000 a flight, but of course, its customers don't mind. "Is it complicated? Sure," says Clemons. "Is it profitable? I think eventually it can be."

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