BEST FACE FORWARD: IMPROVING COMPANIES' SERVICE INTERFACES WITH CUSTOMERS

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MARKETPLACE

In the face of increasingly demanding customers and a shortage of skilled workers to serve them, companies are facing a crisis in customer interaction and relationship management. At the same time, networked technologies—from Web sites to kiosks to interactive voice response units—are enabling managers to "recruit" machines into front-office roles that drive down the costs of consumer interactions and deliver satisfying customer experiences. Successfully integrating technology into the work force requires a wholesale reengineering of the front-office to determine the appropriate division of labor between humans and machines. Here we examine the origins of what we call the "front-office revolution" and the need for businesses to manage coordinated interface systems. We suggest that companies do an audit of their interfaces and optimize them over three phases, which we call separate, relate, and integrate phases. We argue that these interface systems, and the more efficient and effect customer relationship management they enable, represent the next frontier of competitive advantage for many businesses.

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The world of services is undergoing a revolution with regard to how companies manage their relationships with customers. All around us, companies are radically reconfiguring the ways they interact with customers. In airports, computerized kiosks dispense boarding passes and automated scanners read them at the gate. In concourses, fully automated store-in-a-box vending machines bearing retail brands sell books for W.H. Smith and office supplies for Staples. In large-format retailers such as Home Depot, self-checkout stations tally up shoppers' purchases in nearly a thousand of the chain's U.S. stores. Call these machines the offspring of the ATM, but they bear little resemblance to their cash-dispensing forebears that originated several decades ago. The Web, along with the underlying evolution in enabling technologies, has served as a mass-market training ground for consumers in dealing with the symbolic logic of point-and-click icons, pull-down menus, hyperlinked content, and electronic contexts for accessing services and executing transactions. Mass-market consumers of all ages and walks of life have embraced these machines—and adaptation of consumers to new ways of interacting with the world has happened with remarkable velocity.

Given the recent advances in front-office technologies and the receptivity of customers to their use, this appears to be the perfect opportunity for companies to recruit machines into their front-line or service work forces—the chance to lower costs while continuing to serve customers. However as customers, we've all experienced the mishaps of misapplied technology: voice recognition systems that misinterpret simple commands and never default to a human being; Web sites that empty carts of carefully selected items because you've stepped away from the computer for an hour; sales representatives that blithely inform you there is nothing they can do about your online order.

These examples of technology gone wrong are often the result of attempts by a business to reduce the cost of doing business in a hypercompetitive environment. A technology "solution" will be adopted to reduce the cost to serve a particular customer interaction, but it is not considered in the context of the entire customer relationship. The addition of each new way to interact with customers results in a new fixed cost, quickly adding up to a broad collection of expensive investments that often have no discernible benefit for the customer's experience and sometimes even erode it.

Technology is a double-edged sword. Strategic use can give us a proliferation of ways to reach and potentially delight customers while reducing the cost to serve them. Improper deployment can increase the cost and complexity of doing business while eroding the company's image and brand. However the vast majority of businesses operate a portfolio of loosely connected channels, often separating marketing communications, direct sales, and service activities, rather than actively managing an interface system. By definition, the word "channel" tends to conjure images of linear paths and passages when, in reality, customers move in anything but a linear path. This is why we prefer to think of any potential point of contact between a company and a customer as an *interface* and the collection of these interfaces as an *interface system*. All customer interfaces must be managed in concert—adjustments cannot be made to materially change one interface without considering its impact on the system as a whole.

This is important to us as marketers because, ultimately, a company's interface system is its face to its customers—the expression of its brand. As pundits often remind us, branding is not just in what we say through the marketing communications mix: every customer interaction must express it. This is part of the reason for the explosion of literature around understanding, designing, and building the "customer experience" in the past five years. While designing a good customer experience is challenging and, indeed, essential, as a subjective output evaluated by customers, it is not normally susceptible to direct managerial actions. The interface system which delivers the customer experience is the next frontier of competitive advantage—along with the activities, processes, and systems designed to support it.

However, in most cases, all of the ways that a company connects and interacts with customers doesn't add up to an integrated and unique capability to manage relationships. The strategic question facing companies is how to effectively distribute relationship building roles between humans and machines in a way that capitalizes on the strengths of each. Only through a serious reengineering effort—what we call front-office reengineering—will firms be able to simultaneously realize higher levels of both efficiency (defined as lower costs) and effectiveness (defined as higher performance) to put their best face forward in their interactions with customers.

THE CRISIS IN CUSTOMER RELATIONSHIP MANAGEMENT

Numerous studies highlight the gap between multi-channel and single channel customer spending both online and offline. Jupiter has found that for every dollar customers spend online, they spend six dollars offline as a result of their research (Buderi, 2005). Forrester found that online buyers spend an average of $92 online monthly, but $256 offline—26% more than their offline counterparts (Wagner, 2005). Analysis of J.C. Penny's multichannel retail format revealed that trichannel customers spend upwards of four times more than single-channel customers (Stringer, 2004). Kushwaha and Shankar's analysis (2005) of a syndicated database of 1 million U.S. customers revealed that multichannel customers buy one-third more often, purchase 60% more items, and spend about twice as much as single channel customers.

As the proportion of multichannel customers continues to grow and while these statistics illustrate the potential for creating multichannel customer relationships, customers have become notoriously disloyal and discontented. Online buyers are experienced bargain hunters and still overwhelmingly prefer to purchase offline. After conducting online research, half of multichannel shoppers end up switching brands when ultimately purchasing offline (Johnson, 2004). Yet in the face of growing customer disloyalty, companies are consistently offering subpar experiences. A recent Forrester study of the retail experience revealed that only 27% of companies in a study passed 80% of the basic criteria for providing a suitable cross-channel experience (Temkin, 2005).

In the fourth quarter of 2004, the American Customer Satisfaction Index experienced a precipitous plummet that Claes Fornell, who manages the index at the University of Michigan, partly attributes to the degradation of satisfaction to the following:

> The other major cause of the plunge in customer satisfaction appears to be problems with servicing a growing volume of shoppers. While high levels of customer satisfaction typically lead to company growth, it is not always the case that business growth leads to satisfied customers. In many cases, the opposite is true. Through heavy discounting, the holiday season did bring in more buyers for both traditional and online retailers. But because some companies also cut costs, resources to serve the increasing demand were sometimes lacking, resulting in crowding, longer lines, and slower service (Fornell 2005).[1]

This decline in customer satisfaction is a reflection of the general crisis in interaction and relationship management facing businesses today: customers are more sophisticated and demanding than ever, while companies are faced with rising costs and a shrinking *qualified* labor force. The challenge is to determine how to use technology to manage the scarce qualified labor in a way that maximizes performance for customers while capitalizing on the rewards of stimulating multi-channel customer behavior.

THE FRONT-OFFICE REVOLUTION

The concept of substituting technology for human labor is not new. In each era, businesses have found ways to substitute capital machinery for human labor—and capital expenditures proved, in economic terms, more attractive than labor. The current shift from human to machine labor in mass-market services resembles earlier industrial revolutions, when stream-driven turbines replaced living muscle in the early nineteenth century; when automation and dynamos transformed factories, mills, and all manner of transportation in the late nineteenth century; and when data processing mainframe computers transformed back offices of large corporations beginning in the 1950s. Each revolution brought a period of labor strife: the Haymarket Riots in the 1880s targeted the "hard driving" practices at the Carnegie steel mills; the General Motors sit-down strike in the 1930s protested labor relations at the automotive assembly plants; and the New York Times company linotype operator walkout in the 1960s protested the transition to the photo-offset production processes. But each revolution led to a wholesale transformation in how companies conducted business.

The revolution in the service sector—the front-office revolution—is hard to understate. While previous capital-for-labor substitutions occurred primarily in the manufacturing realm, the front-office revolution is happening right at the point of interaction between companies and their customers and has the potential

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[1] The ACSI decline continued in the first quarter of 2005.

to affect the vast majority of the workforce. The service sector accounts for 90% of U.S. employment and more than 80% of GDP. Few developed economies in the world have output from services that's less than 65% (OECD 2004). We are experiencing our own version of labor strife today. In mid-2002, the International Longshore and Warehouse Union immobilized 29 West Coast ports in the United States to protest the installation of computer operators that could control movements of cargo on and off ships from remote locations, speeding cargo handling (Sanger & Greenhouse, 2003). In 2003, the Transport Workers Union Local 100 protested the New York City Transit Authority's plans to close token booths in the city's subway systems and replace them with MetroCard vending machines (Bowles, 2003). Today, many white collar workers are concerned by the off-shoring of jobs in banking, research, medical, design, and customer service industries.

Web sites, kiosks, automated voice-response systems, vending machines, touch-screens, and a host of other evolving devices are playing a role in the dramatic substitution of front-line machine labor for what was, until recently, the exclusive domain of human effort. Smart devices create the flexibility to interact with customers using machines as well as people. Networks create the flexibility in front-line service positions to deploy human talent that is physically proximal as well as geographically remote. In short, networks enable displacement of service roles and functions, and devices enable their substitution. The possibilities represented by displacement and substitution, in turn, throw into question how every company competes today and deals with the labor shortage at hand. There are opportunities for radical gains in efficiency and effectiveness related to how companies manage interactions and relationships with customers, but taking advantage of the opportunity posed by technology requires a wholesale reengineering of the front office.

REENGINEERING THE FRONT OFFICE

When Tom Davenport and Michael Hammer defined the concept of reengineering in the late 1980s, they urged the design of operations in light of new IT capabilities (Davenport, Hammer, & Metsisto, 1989). Rather than using computers to automate existing processes and roles to get work done incrementally faster, they illustrated that greater gains would come from focusing on the strengths of emerging and evolving technologies and radically redesigning business processes and roles to exploit them. Indeed, the mantra of reengineering was summed up in the phrase, "Don't automate. Obliterate."

Front-office reengineering does exactly that. It uses new forms of technology to change the shape of customer interaction and relationship management functions. However the critical difference is that front-office reengineering allows companies to increase substantially the effectiveness of their relationships with customers while simultaneously reducing the cost to serve or interact with them.

There is a rise in the number of corporations successfully using front-office automation primarily to drive effectiveness. Borders deployed Title Sleuth self-service kiosks to take the burden of title searches off its employees. The three hundred machines handle up to 1.2 million customer searches per week, and customers using these machines spend 50 percent more per store visit and generate 20% more special order sales (Netkey, 2003). REI uses interactive kiosks in its stores to hold information on over 78,000 SKUs—information that would be impossible for even the most intelligent store clerks to store in their heads. These kiosk sales are growing at 30% a year, building revenues to date to the equivalent of an additional 25,000-square-foot brick-and-mortar store (Kiosk.com 2003). Rite Aid is using prescription-dispensing robots and interactive voice-response units to fulfill an anticipated labor shortage—prescriptions filled in the United States are expected to grow by 30% over the next two years while the number of pharmacists is projected to expand by only 6%. Automation of rote tasks allows Rite Aid pharmacists to use their time to personally attend to customer's needs, providing much-needed brand differentiation in a commoditized category of the retail sector (Agnese, 2002). Note that, in each of these examples, the introduction of machine-mediated services did not represent a transition to low-end, stripped-down, or second-class offerings; the machines in question consistently outperform the available human alternatives from a service quality perspective.

Front-office reengineering does not, however, refer to simple substitution of machine labor for human effort. Division of labor must occur in the appropriate

emotional context. A recent *New York Times* piece describes one person's interaction with Simon, the automated agent who now takes calls on United Airlines' lost-baggage service line. Over the course of 48 hours and four phone calls, he was unable to get a definitive answer about when he would receive the lost baggage he needed before a meeting. His exchanges with Simon included multiple hang-ups, even in instances when he specifically requested a human being. When he was actually able to reach a customer service representative by calling a different United number, the CSR informed him that only Simon could help him find his luggage (Waltcher, 2005).

From a strict cost perspective, it makes sense to push baggage inquiries away from the realm of human intervention (which costs a company an average of $9.50 per customer interaction) to automated voice response units (which cost an average of $1.10 per customer interaction) (Farmer & Goad, 2003). But in the context of the customer relationship, United was failing to address the real issue: Was automation the right way to deal with emotionally charged interactions with customers in the first place? It might have considered whether its brand image would be strengthened by directing customers to an automated system with little emotional empathy—particularly for something where the company was at fault. It should have considered Simon's deployment in the broader context of interface system management, which in a world of proliferating technologies necessitates the crucial task of achieving an intelligent division of labor between people and machines.

Contrast this with examples of automated voice systems appropriately deployed in the emotional context of customer relationships. Amtrak's Julie, introduced in 2001, sounds so lifelike many callers do not immediately recognize that she is a computer program. She currently handles about one-quarter of Amtrak's annual call volume (5 million calls per year) and saves the railroad $13 million that would otherwise have been required for human operators. However, far from alienating customers, Julie's approval rating is more than 90%, due to her appropriate handling of common tasks (e.g., finding trains, ordering tickets) while allowing access to human operators on demand (Urbina, 2004). Bell Canada's Emily replaced its "smart touch" service. She recognizes 19 out of 20 speech commands from a diverse customer base and,

on average, reduces the length of phone calls from eight keypunches (and the time required to go through associated menu prompts) to a brief conversation and two keypunches (Bibby, 2003). Amtrak and Bell Canada each deployed technology in a way that brought emotional dimension to typically rote tasks, increasing customer satisfaction and simplifying the way they conduct business.

The elements of the reengineered front office are three varieties of what we call service interfaces. Voice recognition systems, vending machines, Web sites, and other purely technology-based solutions (even if supported by staffs for maintenance and development) are machine-dominant interfaces. We think of a waiter in a restaurant (even if supported by computerized ordering systems) as a people-dominant interface. A call center representative, who cannot perform his or her job without access to phone lines and database systems, is a hybrid service interface.

As companies aim to improve the efficiency and effectiveness of their interaction and relationship management operations, senior executives and managers must ask themselves to what extent each service interface performs its functions optimally or whether the company might do better by employing:

- **Substitution:** Deploying people in place of machines or machines in place of people (an e-ticketing kiosk in place of a counter agent at an airport)

- **Complementarity:** Deploying people in collaboration with machines or machines in collaboration with people (an employee using a WiFi-enabled handheld device to facilitate easy rental car returns), or

- **Displacement:** Outsourcing or "off-shoring" machines or labor (a fast-food chain centralizing drive-through order taking in a remote call center)

These questions will drive a new way of conceiving customer relationship management, or CRM. In business lingo, CRM is a technical term, referring to enterprise software systems designed to manage a variety of front-office customer tracking or profiling functions. In our view, that definition of CRM is too limited. CRM should describe everything that people and machines working together in an organization do

to interact successfully with their customers—and thereby establish meaningful relationships. It's the critical driver of competitive advantage.

A REENGINEERED FRONT OFFICE AT WORK: QVC

To illustrate an example of a company that has seriously considered these options, we turn to the example of QVC—a company that we have studied extensively through field research.[2] We selected the TV–home-shopping industry sector for our analysis because its very existence was predicated on a reengineered front office. This approach to selling products was invented, in effect, as a better way to deliver retail services to certain customers. Before founding QVC in 1986, Joseph Segal observed that in order to effectively use broadcast as a sales channel, it was imperative to build trust in a land of schlock, where obvious competitors were a host of crudely produced home-shopping channels and late-night hucksters selling abdominal rollers, salad shooters, ginsu knives, and get-rich-quick schemes. To accomplish this, he focused on using the highest quality production values, selling high-quality branded merchandise, and providing outstanding customer service. QVC has since grown rapidly to reach a 59% U.S. market share in a $9 billion industry, making it one of the most successful start-ups in history.

Long before the Web, QVC proved how direct or technology-mediated retail channels and hybrid interfaces could produce extraordinary levels of customer satisfaction, loyalty, and operating efficiency. Given its growth and scale, we might rank it among the world's most successful "electronic commerce" companies. QVC touches its customers in diverse ways. For most of its customers, the shopping experience starts with broadcast programming and cascades through a variety of order-entry interfaces, including call centers, VRUs, and the Web site, with orders fulfilled by its own supply-chain operations and distribution centers.

Let us examine how QVC reengineered the traditional retail format. Given that it operates in what is arguably the world's least-trusted medium, QVC's

success stems from its ability to build trust. While a salesperson at a traditional retail store can build trust with a customer during a store visit (even if only to convince the customer that the store and the merchandise truly exist), QVC had to build this trust using a combination of hybrid and machine interfaces. QVC data indicates that the average shopper watches the network over a period of six months or 40 viewing hours before making a first purchase. In place of a retail storefront and competent salespeople, QVC utilizes the broadcast channel with a stable of approximately 20 sales hosts. These hosts explicitly employ a "backyard fence" demeanor in their sales approach, avoiding aggressive sales tactics and employing objective data based on product specs and actual customer experience, as one would with a neighbor. Product demonstrations, customer testimonials, host descriptions, unique products and high-quality brands are all orchestrated to interest a customer in the product without the typical tack of admonishing viewers to buy before supplies run out.

In place of cashiers, QVC processes orders using a combination of call centers, voice-response systems, and a Web site. Fifty percent of orders are processed by human operators while 40% are processed by VRU and 10% by the Web site. Unlike physical retail environments where customers are often harassed by overzealous sales staff or utterly ignored, QVC customers can select their interface of preference—human operators for new customers, those with questions, or those who simply prefer humans, and VRUs and the Web site for those who prefer a more speedy transaction.

QVC also connects its interfaces internally in ways that retail stores cannot. Call volume is carefully tracked against host product descriptions. Producers can use spikes and declines in call volume to guide hosts to talk about the information that is most compelling and interesting to viewers. Furthermore, the effects of changes in any of its interfaces are immediately revealed in changes to minute-by-minute revenue. In 2001, the network changed its on-screen look to what management believed were more appealing and intuitive graphics. Despite testing ahead of time, analysis revealed that sales were down 20%, regardless of what QVC did with its broadcast, merchandizing, or planning efforts. The old graphics were put into place and revenue immediately rose to normal

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[2] This research consisted of 30 interviews with QVC executives and two observational visits conducted through 2002 and 2004.

levels. Physical stores do not have the luxury of changing retail formats real-time or as often.

While there is a great deal more complexity to QVC's operations than we have revealed here, we have outlined its key differences from traditional retailers at the time of its founding in 1986. The broadcast and its hosts displaced the retail environment and substituted for salespeople. Call centers displaced cashiers, essentially corralling them in one location while the VRU and Web site substituted for them. And the results that QVC achieves vis-à-vis traditional retailers are striking. Consider the leverage on human talent: while a top salesperson in a department store might sell several million dollars of merchandise per year, QVC's average productivity per sales host is $200 million a year. For top hosts, the numbers spiral upwards from there. Or else, consider this comparison of QVC to Wal-Mart and Sears when looking at the entire employee base. On a sales-per-employee basis, QVC achieves $444,455 in sales per capita as compared with Wal-Mart's $170,886 and Sears' $165,157. On an EBITDA margin basis, QVC achieves $92,091 in margin per capita as compared with Wal-Mart's $12,693 and Sears' $12,570 (Morgan Stanley, 2004; Wal-Mart, 2004; Sears, 2004). Furthermore, QVC's average return rate is 1%, while that of the retail industry at large is 8.9%. It's no wonder that Wal-Mart is valued at a single multiple of revenues, Sears at a multiple of just one-quarter of revenues, and QVC at three times revenues. Indeed, QVC's enterprise value was recently established in a $14 billion transaction in mid-2003, when Liberty Media acquired the 57% of QVC it did not already own from Comcast for nearly $8 billion.

DESIGNING A SYSTEM FOR ADVANTAGE: QVC V. HSN

While we have illustrated how QVC represented a reengineered version of the traditional retailer, we cannot truly appreciate the competitive advantage of a well designed interface system without looking at it vis-à-vis its primary competitor, Home Shopping Network (HSN.)[3] QVC and HSN are nearly identical

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[3] Analysis of HSN is based on our research team's data, which include viewing both channels during the same prime-time slots in February and March 2004, information about brands and programming on QVC.com and HSN.com, customer comments from online bulletin boards, customer interviews, and secondary sources.

in the interfaces they deploy, but QVC consistently outperforms HSN. Both sell on television and online; operate call centers, voice response units, and distribution centers; reach nearly every cable-TV household in the United States; and run internal operations in growth markets such as Germany and Japan. Even their customer bases are similar: QVC reaches 86 million homes, and HSN reaches 84 million homes; their customers are primarily females of average age in their late thirties to early forties with a household income of approximately $63,000 to $65,000.

The Coke and Pepsi of their industry, they constitute most of the TV home-shopping market in the United States. They have based their sector of the retail industry on a reengineered front office and so, in the purest sense, they compete interface system to interface system. But in 2004, QVC generated $5.69 billion in revenues worldwide, while HSN generated $2.38 billion in revenues. QVC realized sales of $580 from each active customer, while HSN generated only $383 (Khosrowshahi & McInerney, 2004). How can this be?

To understand the performance gap between these two companies, we analyze their interface systems on a separate, related, and integrated basis. When managing interface systems, we advise managers to focus on this sequence of activities: *separate*, *relate*, and *integrate*. This approach constitutes an organizing framework for integrating and optimizing interface systems (See Figure 1).

In the *separate* phase, managers should focus on optimizing the performance of individual interfaces across the buying process, improving their performance in mediating customer interactions while lowering operation cost whenever feasible. (In the figure, each circle represents a point where customers use a particular interface at a particular buying process stage.) In the relate phase, managers focus on connecting interfaces in the system from a branding perspective externally and from an informational perspective internally to ensure that customers can smoothly interact with multiple interfaces in the system. In the integrate phase, managers focus on fully integrating operational practices across business units with the interface system in a way that efficiently and efficiently moves customers through the buying process.

By evaluating QVC and HSN using this framework, we will illustrate the striking difference between
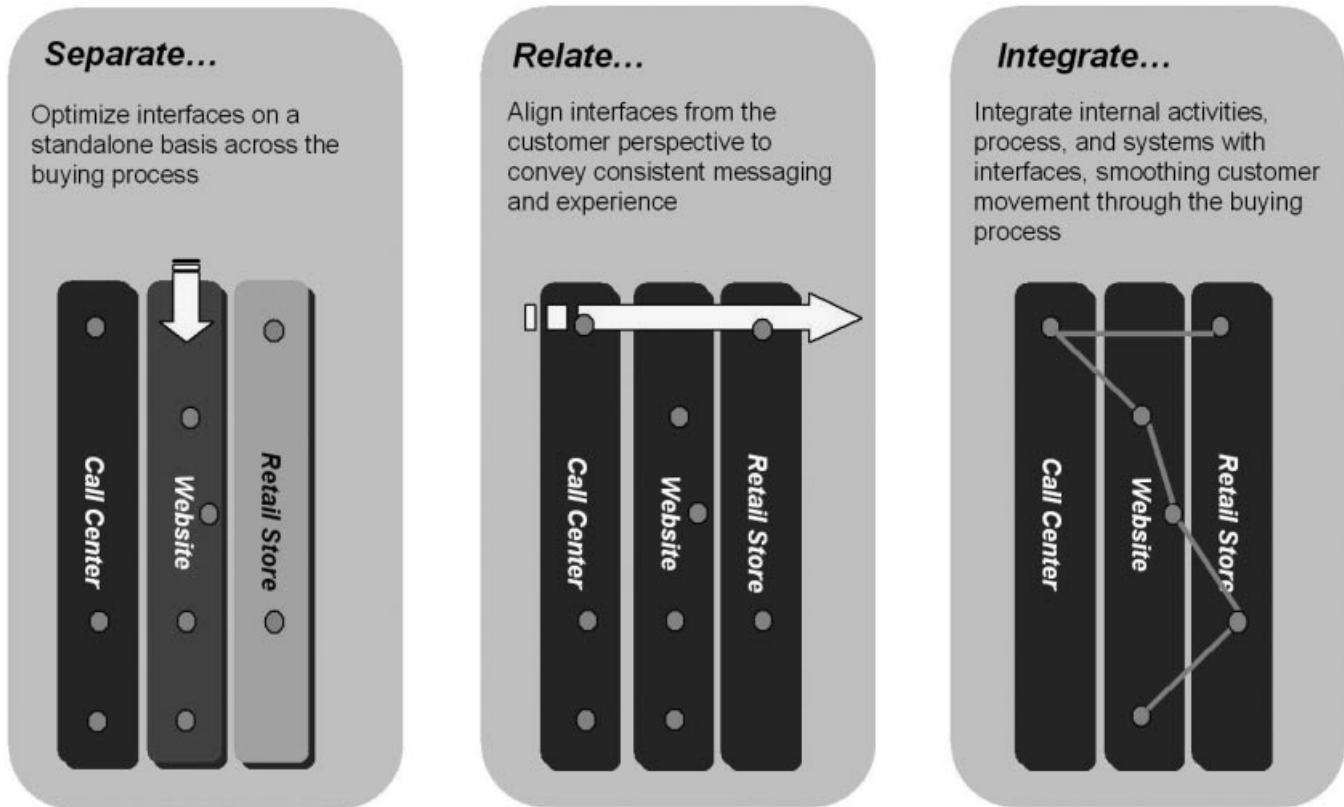
Separate…

Optimize interfaces on a standalone basis across the buying process

Call Center *Website* *Retail Store*

Relate…

Align interfaces from the customer perspective to convey consistent messaging and experience

Call Center *Website* *Retail Store*

Integrate…

Integrate internal activities, process, and systems with interfaces, smoothing customer movement through the buying process

Call Center *Website* *Retail Store*

FIGURE 1

When Managing Interface Systems, Separate, Relate, and Integrate

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managing interfaces as a system, as QVC does, versus operating a portfolio of individually optimized interfaces, as HSN does.

Separate: How Do Interfaces Perform on a Stand-Alone Basis?

Both QVC and HSN build awareness and interest primarily through the broadcast signal, which is composed of on-air personalities, featured merchandise, and on-screen information graphics. On any of these dimensions, HSN proves strikingly different from QVC. In contrast to QVC's consistently polished, friendly, and empathetic hosts, HSN's on-air talent is more variable, with some hosts who smile less, appear tense, and focus on moving product. Rather than provide information to inform a customer's purchase decision, they often push products with meaningless exclamations (they're "fabulous!" or "incredible!") while admonishing viewers to rush to their phones before inventories run out. QVC's hosts build relationships with viewers while making products the center of attention; HSN's hosts often push products

to the point of ignoring their guests and audience alike. In addition, some of their hosts are celebrities of yesteryear, such as Suzanne Somers and Susan Lucci, who get overexposed on the channel. While QVC hosts build a sense of community by asking viewers to call into shows (with a dedicated testimonial call-in number on-screen), HSN many times solicits customer testimonials, only to have no customers call in. In short, HSN hosts are not focused on positive interactions with customers, but visibly managing down the network's inventory levels.

In merchandising, 80% of what HSN sells is generic goods, compared with QVC's hundreds of national brands in scores of categories. In addition, while QVC will regularly present six to 10 new items in an hour, HSN will sometimes focus on just three or four—until inventory levels run out—making for less interesting and dynamic programming. Furthermore, while QVC is careful to vary its weekly programming, HSN often airs the same program in a three to five day time frame, sometimes airing the same segment (with slightly different products) eight times in one weekend.

Finally, with respect to on-screen graphics, HSN provides only basic information on products, pricing, and item numbers. QVC presents all of this data, but also rotates through seven or eight helpful phrases in an information bar at the bottom of the screen, including its Web site URL, its AOL keyword, its various delivery options and times, and its VRU call-in numbers.

At the purchase stage, HSN presents other challenges to customers. When viewers place calls to the network at QVC, call center representatives are likely to pick up the phone before the first ring; all calls are answered before the second ring. When calls go to HSN, 65% are answered within 20 seconds—but the delay means that 8% of callers hang up before HSN picks up the phone. Some callers to HSN wait five minutes or more (Myron, 2003). QVC invites callers to self-segment according to those that prefer to talk to a person and those that prefer to use automated ordering, offering a separate number for its VRUs. HSN calls are undifferentiated in how the network handles them, funneling all callers through a VRU even if they ultimately want to reach a human being. Furthermore, HSN call center representatives aggressively cross-sell products not featured on air in almost every interaction. Even when customers are in dialogue with QVC call center representatives, there are few cross-sells or up-sells permitted, unless the up-sell relates very specifically to an item the customer is already buying. Even so, QVC will up-sell no more than 15% of callers a month and will not up-sell any individual customer more than once a month (Hunter, 2003).

Through the majority of its key interfaces—the broadcast channel, the phone CSR, and the VRU—HSN's system decidedly mirrors its corporate focus on managing the network's inventory levels, while QVC's system decidedly mirrors its focus on building the trust necessary to bolster its claim of "Quality, Value, and Convenience." The one interface where this is the exception is the Web, where HSN's Web site carries a more polished design that capitalizes on appropriate cross-selling opportunities.

Relate: Are Interfaces Appropriately Linked from the Customer Perspective?

While both QVC and HSN employ data systems that are shared across interfaces on the back-end, allowing for information about purchases in one channel to be easily accessible from another, the relationship between their interfaces on the front-end is quite different. Online, QVC retains past-purchase information for the duration of the customer relationship while HSN purges such information from the "my account" section after 90 days. When call volumes are high on QVC, hosts will encourage customers to use the Web site or separate the toll free VRU number. On HSN, hosts also encourage customers to use the Web site, but they also encourage customers panicked by falling inventory levels to quickly call so they can be in the queue of customers to wait on hold for the product. Because there is only one number for those customers wishing to reach the VRU and those wishing to reach a human operator, an additional step is added in the buying process purely to triage these calls. Furthermore, QVC customer service representatives are available by phone 24 hours a day, seven days a week to both take orders and answer questions about previous orders. Every page on the Web site with a buy button also prominently lists a toll-free number that customers can use to reach someone in customer service. HSN lists no numbers on many of its product pages and while customers can call to order products 24 hours a day, customer service is unavailable from 1 am to 8 am.

QVC's insistence on maintaining its brand image as a trusted company available at all hours is also evident in its decision to add new interfaces. In order to make sure that customer service on its Web site mirrored the availability of 24/7 customer service by phone, QVC explicitly made the decision to make 24-hour live customer service available through Live Person, even if it was not necessarily purely cost efficient. HSN has no such online help available. This is the essence of the front-office revolution—deploying technology not simply for cost efficiency's sake but in the context of maximizing the overall effectiveness of the customer relationship.

Integrate: How Do Company Activities, Processes, and Systems Support the Interface System?

Fully integrating the interface system with a company's operational functions is quite a challenge, and this is where QVC has the most significant advantage over HSN. Every single aspect of its operations is aligned with the interface system to deliver the high-quality customer experience it seeks to provide. Call

center representatives are put through at least 30 hours of rigorous training on service values and business philosophy before they are allowed to answer the phones. In order to maintain quality control, QVC strictly utilizes only in-house representatives, even while outsourcing overseas has become in vogue. HSN outsources at least 25% of its call center operations, both internationally to the Philippines (Albright, 2003) and domestically to Precision Response Corporation (Ganeshram, 2003).

QVC specifically discourages aggressive cross-selling because it is inconsistent with its "backyard fence" approach. However, HSN compensates its representatives according to incremental offers they proffer and revenues that result from add-on sales, resulting in an aggressive CSR approach that is often a turn-off for callers. While QVC has improved its reps' efficiency from two minutes of talk time to place a customer order to just 90 seconds, and three minutes of talk time for a service call from four minutes, HSN encourages its reps to keep customers on the phone longer before concluding their orders. Since customers frequently object to such treatment, HSN has scripted its reps to ensure that they have phrases they can read to overcome customer objections. In contrast, QVC supports reps with intelligent systems that are entirely free of scripts, prompts, and function keys. Instead, screens guide them through the order process, each showing tips for helping customers and options for how they could be doing more to satisfy the person on the phone. The intent is to liberate reps from navigating complex screens so they have time to listen and respond to customers over the phone, while reducing overall talk time, since QVC believes its customers place a high value on fast ordering and quick service.

QVC even maintains a tightly run fulfillment operation in keeping with its brand image. While HSN offers inflexible shipping arrangements, with two delivery options (five and 10 days for delivery), QVC offers seven (from two to 10 days with a variety of carriers) which mirrors the online experience that customers are accustomed to. QVC ships nine out of 10 orders in 24 hours while, until recently, HSN managed to ship only 87% within 48 hours—and shipments are often delayed.[4] Most QVC's products on-air are items in its own inventory, so customers get what

they order—or they're told when they call that the item will be delayed or has sold out. HSN takes orders for items it does not have, then e-mails customers to tell them they're on a product "wait list." While returns are easy and quick at QVC, they are difficult at HSN. Based on a preponderance of customer data posted on the Web, HSN fields phone reps often have little knowledge of its merchandise or return processes, and many times promise refunds that arrive late or never. While both QVC and HSN have 30-day return guarantees, QVC will accept returns even after 30 days with a receipt while HSN will leave customers to fend for themselves directly with manufacturers.

In summary, QVC sells high-quality products, at fair prices, with truthful sales hosts in an environment that feels like neighborly advice proffered across a backyard fence. Everything the company does in delivering on its brand promise of quality, value, and convenience is reflected in its interface system. Indeed, there is even a cross-functional "operational excellence" team that creates projects centered around specific aspects of the customer experience that might need improvement. What's interesting about all of this is that QVC appears to have made choices that were not necessarily always economically advantageous to the firm: it chose to have 24-hour live help available online and via phone rather than not; it takes title of the majority of its inventory although a drop-ship option might be less costly; it utilizes a highly trained, in-house call center operation rather than moving operations overseas; it allows customers direct access to human beings without an automated queue; it invests heavily in fulfillment operations that deliver products earlier than promised; and it accepts returns on items over 30 days old that cannot be resold. However, these are all choices that QVC explicitly made to create an interface system that delivers a consistently outstanding customer experience. And this was clearly the right choice. Ninety-one percent of QVC customers rate its service in the top category of "excellent," and nearly half of its sales come from customers who have purchased before. And this level of customer satisfaction translates into financial results.

The net result is not only a significant difference in revenue productivity despite nearly identical reach, customer demographics, merchandising, and average price points (QVC's $5.69 billion to HSN's $2.38 billion in 2004), but also a dramatic difference in

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[4] HSN data as of 2003. Figures have improved in the last two years, but exact figures are unavailable.
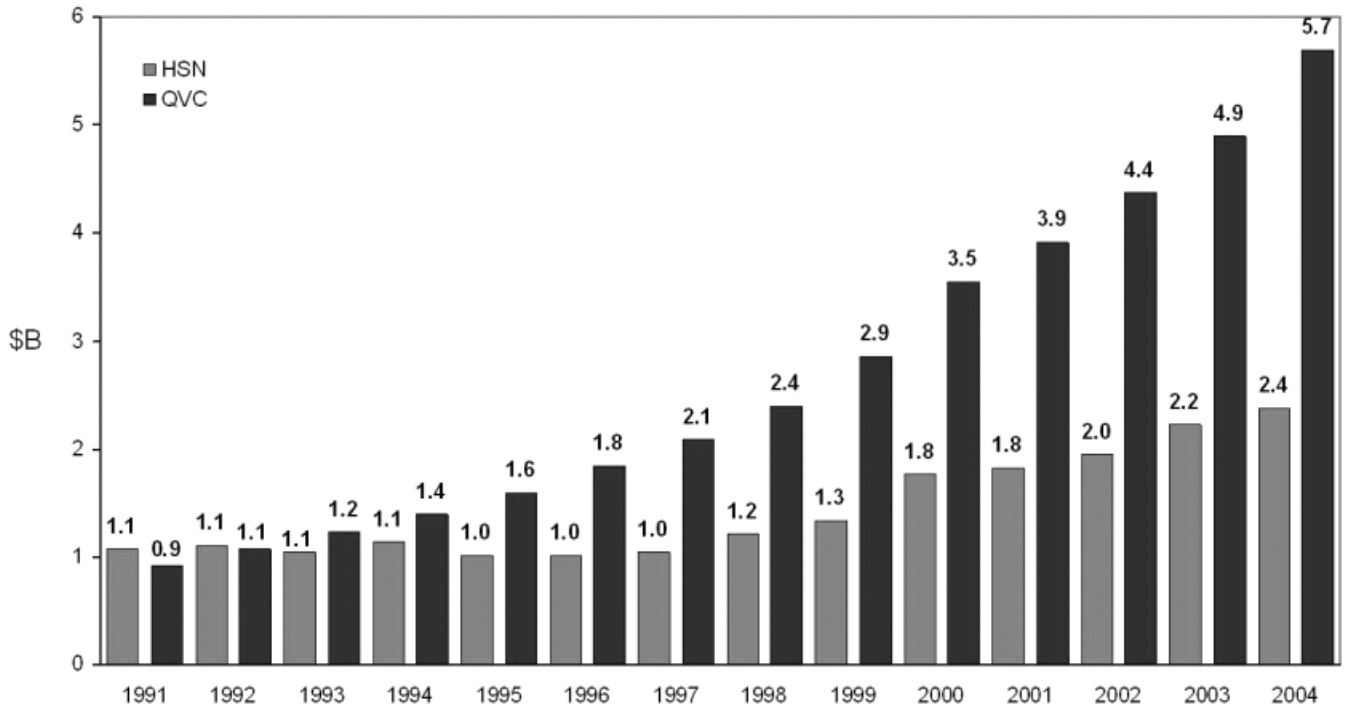
FIGURE 2

HSN v. QVC—Total Worldwide Revenue 1991–2004

Source : Companies Annual Reports, Morgan Stanley Research, Hoover's Online

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profitability (QVC's operating margin of 13.4% v. HSN's of 7.5%). Although HSN was the industry's first mover (pioneering this retail segment four years before QVC was founded), QVC overtook HSN on a worldwide revenue basis in 1993 and has since grown to double HSN's size (see Figure 2). Each year, the revenue gap between the two grows wider: in the decade from 1994 to 2004, QVC more than tripled its revenue while HSN barely managed to double its sales.

The underlying logic is clear. Through its singular focus on enhancing the quality of its interactions and relationships with customers, QVC manages an interface system that yields more active customers who buy more frequently and purchase larger average orders than HSN's, even though the two networks appear, at first blush, to operate in identical ways. The performance gap between Number One and Number Two in this industry is enormous, and it's only possible to explain it by examining the efficiency and effectiveness of the two companies' interface systems. That's what makes the TV–home-shopping sector instructive for businesses across many industry sectors that seek an edge beyond offering-based

advantage. In a world that competes increasingly on now rather than what companies sell, just about every business must strive for the kind of excellence in interface system management that QVC exemplifies. And in the case of QVC and HSN, the difference between an outstanding interface system and one that is merely good is $3 billion in sales.

IMPLEMENTATION

As companies compete increasingly on the quality of their interactions with customers, the strategic importance of interface management steadily rises. Just as many an online business lives or dies based on the visual appeal, commerce functionality, and ease of use of its Web interfaces to customers, companies must view their interface systems as critical sources of strategic differentiation and competitive advantage.

Given the operating possibilities that device proliferation and network ubiquity create in terms of substitution, complementarity, and displacement, it is an imperative for every company to consider how it will reallocate front-office roles between people and machines. This process is a daunting one, requiring

Front-office reengineering will not occur without a significant investment of time and effort and an overhaul of many customer-service practices and services. To begin, we recommend engaging in an audit that will help the organization determine what initiatives to prioritize and in what order.

Phase I: Evaluate interfaces on a **separated** basis

1. Take an inventory of all customer facing interfaces (market communications, service operations, sales forces, websites, etc.) For each, take note of:

   a. Interface type (machine-dominant, people-dominant, or hybrid)
   b. Any associated databases or technology solutions
   c. Key decision-making authorities

2. Meet with key internal stakeholders of each of these interfaces to articulate a consistent approach (even if aspirational) to customer relationships. Create a plan that outlines new strategic objectives based on the customer experience the company aspires to provide and the impact on current processes and capabilities.

3. Meet with customers, partners, and suppliers to understand their *pain points*—frustrations and challenges with individual interfaces that encourage customers to defect.

4. Determine whether pain points at specific interfaces might be alleviated by either substituting humans or machines from each other, deploying a hybrid interface, or displacing the work performed by that interface to another location entirely. Address those interfaces that are most immediately degrading the customer experience.

Phase II: Evaluate interfaces on a **related** basis

1. Map customer flow through interfaces in the buying process stages to uncover any:

   a. *Choke points* where customers find it difficult to move from one interface to another either within or across buying process stages or
   b. *Drop off points* where customers drop out of the buying process all together

2. Map out all information flows within the interface system, including all points of customer, partner, and supplier contact via voice, e-mail, phone, and web system and any human points of contact. Include any systems or devices employees may use to collect, process, or distribute information.

3. Review your IT architecture and service systems—pay particular attention to how and where customer data and information is collected and stored. Understand key integration points and application life-cycle options.

4. Determine where pain points and drop off points might be alleviated by improved information flows, better data collection, specific IT solutions, or revised internal processes to smooth or encourage transitions between interfaces

Phase III: Evaluate interfaces on an **integrated** basis

1. Catalogue current service practices and processes associated with existing interfaces.

2. Map these practices and processes to pain points and drop off points.

3. Determine what operational processes and practices need to be revised to support optimization of individual interfaces and interfaces in concert. Pay particular attention to cross-functional integration (e.g. marketing, sales, service, etc.).

The relative success for the implementation of each phase will depend on how well managers prioritize projects according to their potential influence the customer experience, ensure that governance policies and employee training support the strategic goals of individual interfaces as well as the interface system, and continue to evaluate the system on an ongoing basis to make future adjustments in a timely fashion.

FIGURE 3

Interface System Audit: Separate, Relate, and Integrate

strategic oversight and cross-functional coordination. Thus the process of front-office reengineering would ideally be managed and overseen by a CEO or COO. However, marketers—and, in particular, CMOs—are in a unique position as experts in understanding desired customer experiences and reverse-engineering interfaces and operations that can deliver on customer preferences and desires. While many customer interfaces are not traditionally associated with marketing and might fall under the

authority of other functions or departments, the ability of marketers to do their job well will depend on their ability to play a broadly integrative role across the organization in this process. This not a command-and-control challenge, but a matter of power and influence.

To implement the front-office reengineering process, organizations should start with an interface system audit as shown in Figure 3. While it may take time for managers to develop a subtle understanding of how to manage the intelligent division of labor between people and machines, acting upon this interface imperative will allow companies to combine the best of what people and machines can do to secure their competitive future.

CONCLUSION

The industrial revolution in services is upon us, and service automation—combining people and machines on the front lines of service—will have enormous strategic implications for firms. Astutely and effectively managed, interface systems can enable companies to serve customers more efficiently and effectively, facilitating higher quality customer interactions at lower costs of service. Such outcomes create more valuable customer relationships as customers become more loyal and adopt multi-channel purchasing behavior. Even if a company optimizes each of its interfaces on a stand-alone basis, those interfaces will not operate effectively as a system. Only when a company manages its portfolio of interfaces as an interface system are those interfaces likely to deliver better customer experiences, the basis of competitive advantage in world of rapidly commoditizing product and service offerings.

As a result, every company must grapple with an interface imperative: companies must assess and optimize their interfaces on a separate, related, and integrated basis. In doing so, managers must consider how they will:

- Take advantage of substitution, complementarity, and displacement to determine the appropriate division of labor between people and machines;

- Actively manage customer interfaces as a system that effectively and efficiently expresses a company's brand by delivering on desired customer experiences; and

- Overcome organizational fiefdoms and silos that prevent companies from appropriately delivering desired customer outcomes, due to a lack of communication and coordination in enabling operations.

It is only by considering these challenges that companies can put their Best Face Forward in their interactions with customers—and compete successfully for advantage in the future.

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