

Value Innovation in the eEconomy

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How and where companies should compete is rapidly changing in an eEconomy that has compelled organizations worldwide to re-think how best to deliver value to customers. Evolving, innovative value propositions can drive growth and create distinct competitive advantages—positions of cost leadership, differentiation, or *both*. At the heart of new value creation is the customer, and understanding the five customer interactions—buying, using, selling/transferring, co-creating, and integrating—is the starting point to achieving customer value innovation.

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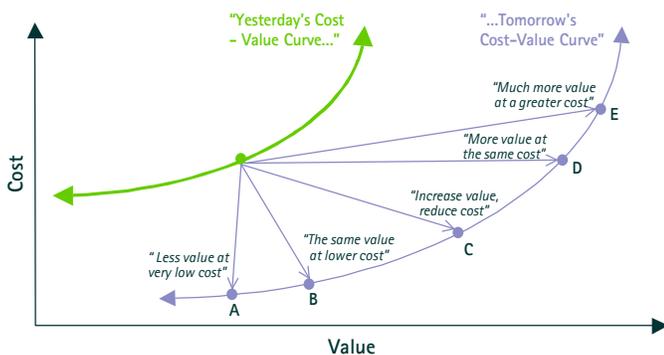
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"Looking for value shifts," reasons Michael Dell, CEO of Dell Computer, "is probably the most important dimension of leadership." In today's eEconomy, traditional and new competitors are shifting customer value at a rate that is at once breathtaking and daunting. E-Commerce has e-vamped value chains and value propositions; it has digitized and pushed companies relentlessly to improve performance, and search for, discover and execute new customer value innovations. Along the way, it's creating headlines, headaches, and heady opportunities. Scarcely an industry, it seems, is beyond its reach.

The Shifting Customer Value Frontier

A confluence of factors, alone and in concert, are shaping the eEconomy. Declining communication and information costs, increasing quality and quantity of buyer and seller information, and growing networks of collaborating specialists have fueled the separation of information assets from physical assets. The irrevocable splitting of atoms from bits and bytes has made separate the marketing of products *vis a vis* the movement of products. It is revolutionary. Traditional industry cost/value curves, as a whole, have accelerated outward, giving rise to new frontiers of potential customer value innovation (figure 1.) Value chain activities of companies—from the procuring of raw materials to delivering finished products—have become disaggregated and reconfigured to form novel, unique offerings from nimble new players and established old hands.

Figure 1: The Shifting Customer Value Frontier



The speed and the extent to which these customer value frontiers will shift depend in part on the product, service, or process in question, and on the fundamentally transforming e-commerce drivers as Moore's law (the capacity of comput-

ing will double and costs halve every 18 months), Coase's law (lower transaction costs lead to increased market efficiency), and—in particular with businesses that rely on connectivity—Metcalf's law (the bigger the network, the greater the value for all connected). All told, it adds up to new equations of customer cost and value.

Indeed, shifting cost-value curves undermine traditional value propositions. Traditional full service brokerages, for example, typically combined in-house research with advisory services and other bundled services (order processing, trade execution, custody, account management, access to IPOs, etc.)—all for a high commission. Electronic commerce is driving the unbundling of these services. Today there are discount e-Brokers who for a nominal fee instantaneously execute your trade, without offering advisory or research services. There are also discount e-brokers who provide some select research for a nominal subscription price and may even offer other services such as access to IPOs along with handling the transaction. There are also traditional brokerage houses who are adding broader electronic services, tax planning, risk management and proprietary trading strategies. In this one industry, there are multiple new cost-value strategies being adopted by both existing competitors and new entrants.

The challenge for today's traditional companies like full service brokerages is to get to and establish a position on the next customer value frontier. There are five alternative business models that a traditional company can adopt: (1) less cost and less value (going commodity), (2) same value for less cost (the low cost strategy), (3) more value for less cost (the middle of the river approach), (4) more value for same cost (the brand strategy), and (5) more value for more cost (the upscale approach).

Why consider a change? Setting aside for a moment the disruptive influence of e-commerce, studies of superior market performers have found that market leaders innovate and transform their customer value propositions to grow earnings. In doing so, these high performance leaders customarily rethink buyer values and then re-construct and deliver innovative value bundles. In short, they define and execute new value propositions. The critical first step in deciding on which strategic bundle to offer is to walk with the ultimate arbiter of value, the customer, while recognizing the five customer

interactions (buyer, user, seller, co-creator, and integrator) as a guiding framework.

The Bite Behind the Buzz

In order to build new value propositions, to innovate in an eEconomy of shifting customer value curves, it's useful to deconstruct the meanings behind and the relationships between *customer value*, *customer interactions*, and value propositions—or, in other words, put some bite behind the buzz.

Customer Value: Usually defined in broad terms as the difference between perceived benefits and perceived costs, 'customer value' can be parsed into more specific components to elucidate a more compelling meaning. For starters, it is by definition a phrase that begins and ends from the perspective of the customer. With this squarely in mind, it can be further described as the relationship between attribute by attribute *performance* of the product or service in meeting customer needs and the *total customer cost*. Attribute performance can be thought of in a couple ways. More formally, it describes how well a set of product or service attributes (features, qualities, etc.) meets as many customer needs as possible (basic, expected, desired or unanticipated). Or perhaps more intuitively, performance can be discussed as an overall roll-up of the product's attributes as they compare on a benchmark scale (low, medium, high) relative to the attributes offered by industry competitors. 'Total customer cost', meanwhile, asserts a sum of the price (direct financial and auxiliary costs), effort (acquisition, operations and maintenance, and complementary product search), and risk (Please see sidebar story "Reduce Customer Risks with eCommerce"). Customer value, then, is the ratio of product or service attribute *performance* to *total customer costs*.

Customer Interactions: The interactive experiences between a customer and a supplier and its offer are plentiful and complex. We identify five key interactions noted below:

- **Buying:** Customers must define needs, assess suppliers, place orders, and pay for and take delivery of a product or service to acquire products. Customer can also incur efforts, risks and expend time in this interaction.
- **Using:** Customers derive various benefits through the use

Reduce Customer Risk with eCommerce

How can you increase customer perceptions of value in the eEconomy? One way is to employ the unique capabilities of electronic commerce to reduce your customers' risks.

Marketing researchers have identified a number of risks that customers encounter and suggest that reducing these risks will greatly enhance customer perceptions of value. As firms embark on electronic commerce initiatives, many are concerned with buyers' perceptions of the security and financial risk of online. It's important to recognize that electronic commerce can greatly reduce customer perceptions of other forms of risk.

Many banks have used the Internet to address *psychological risk* that the customer may be embarrassed in a transaction. By providing online calculators in the loan approval process, banks avert some of the discomfort customers can encounter in a meeting with a loan officer. Customers discover before they walk in what the bank considers an affordable loan, given their financial means.

Federal Express, customers reduces *relationship risks* by providing package tracking, and allowing their clients to check the status of deliveries to valued partners. Even though the customer can do little to expedite the delivery of a package, online tracking enables them to manage their relationships better. This has provided greater customer satisfaction—at much lower cost to Federal Express than call center service.

Electronic commerce offers a number of ways to reduce *functional, quality and obsolescence risks*. By providing detailed product information or customer reviews companies such as Dell and Amazon reduce functional and quality risks, thereby enhancing the customer confidence that the product will meet their expectations. Companies like Symantec constantly upgrade their virus definitions through online delivery to offset product obsolescence risks.

By creating an "electronic category killer" with very large assortments and centralized inventory, Amazon.com or CD-NOW ensure that the customer finds the product they want without incurring substantial effort of visiting a physical store. This reduces *selection risk* that a specific product is out of stock in the physical store. E-retailers are also beginning to manage the customer's *delay risks*—that a product or service will not arrive or be available in a timely manner. Many electronic storefronts now reveal whether the product is instantly available,

of product or service. Customers can also incur various costs in the use interaction.

- **Selling/Transferring:** Customers require a means to sell or dispose of products. For example, a physical product can be discarded, recycled, or resold, while information know-how can be stored, transferred to others, or resold.
- **Co-creating:** Customers cooperate with their suppliers, other customers, and complementary producers to enhance or realize the expected value (Please see Outlook 1999, Number 2 for a more detailed discussion)
- **Integrating:** Customers fulfill comprehensive needs through integrating information, products and services across suppliers, other customers, and complementary producers.

Ordinarily, managers focus on the customer interactions of 'buyer' and 'user'. E-Commerce, however, brings to bear the emerging potential of additional customers interactions, which, when explored fully, can provide new opportunities for value innovation.

Value Propositions: Finally, then, a value proposition can be recast in a less traditional light as the generation of customer value across the five customer interactions. Reconfiguring a value proposition, in turn, involves the modification of customer value in the context of these interactions. By changing product or service performance—through raising, reducing, creating or eliminating attributes or elements—re-invented value bundles that reflect a revised total customer cost can be brought to the market.

Exploiting Customer Interactions in E-Commerce

While companies have already tended to focus value innovation on satisfying the core needs of a customer as embodied in the *buyer* or *user*, e-Commerce has markedly upped the performance ante and extended the innovative possibilities for these two interactions. And as competitors converge on similar product offers to satisfy core needs, it becomes important to expand the understanding of the customer to also consider possibilities for creating value in relation to *seller/transferor*, *co-creator*, and *integrator* interactions. Considering these

continued from page 4

back-ordered or shipped (with package tracking from the shipper). This helps customers manage the opportunity costs of delay.

Pharmaceutical firms are now using the Internet to provide detailed information on potentially dangerous drug interactions, appropriate dosages, side effects. This reduces customer *risks of physical injury*.

In similar fashion, credit agencies, the Better Business Bureau, and systems like e-TRUST distribute ratings that enhance consumer confidence in electronic transactions and alleviate *financial risks*.

These examples only begin to explore how the Internet and other eCommerce technologies can be used by companies to help their customers understand and manage risks. Ask yourself which of the categories of risk described above are most important to your customers. Then decide to provide information online that allows them to better manage key risks and perceive greater value in your products and services. Making commerce safer for customers may require some creative thinking, but lower risks for your customers will likely translate to greater customer satisfaction, sales, and profitability in the eEconomy.

interactions simultaneously helps us understand customers better, rethink value propositions for customers and provide new possibilities for differentiation.

Dell revolutionized, for example, the *buying interaction* for computers. By focusing on streamlining the acquisition process for its customers through standardized components, direct sales, phone-based and on-line ordering and support, the company has redefined the standard within its industry. Its 'Premier Pages' are customized, account-specific sites geared to selling products to its corporate customers. Today Dell does 30% of its business on the Web. In working with Accenture, Toyota is moving forward with a virtual inventory concept that allows customers to specify a vehicle and receive a listing of all vehicles in stock nationwide. Toyota customers will be able to remotely coordinate and/or complete their vehicle purchase via the Internet, kiosk and/or phone, determining what part of the process to conduct remotely and what to conduct at the dealer. Hewlett Packard, meanwhile, uses its EXPRESS terminals to sell printer cartridges and other supplies at convenience stores. Barpoint.com allows mobile users to type or scan product UPC barcodes into a handheld device to wirelessly access comparison prices from on-line

sources, manufacturer's contact information, and links to purchase the item from e-commerce vendors. These examples—along with the eToys, Drugstore.com, and Priceline.com of the consumer world, as well as the growing B2B successes of Altra Energy (largest electronic energy trading platform), General Electric (trading post network for intra-company purchases from external suppliers) and Chemdex (virtual warehouse for the global life-science market)—underscore the momentum behind leveraging e-commerce to create greater convenience in the customer buyer role.

On-line updates of software and customer service support are common examples of e-commerce-driven contributions to the *user interaction*. 3Com, for instance, provides a self-service database of technical information to enable customers to diagnose problems and upgrade their data network. Boeing sells two-thirds of its spare parts on-line (a \$3 billion business), while Double Click, a Internet advertising business, compiles case studies and posts thoughts on successful Web marketing and advertising strategies. In the well-documented travel industry, Biztravel.com, which upgrades its site every six weeks, provides users first-class applications and programs to satisfy needs. For example, its 'BizAlert' sends messages of gate information, updates on delays or cancellations to a member's pager; 'CalendarDirect' downloads travel itineraries to member Palm Pilots or other calendar programs. Biztravel tracks points and miles, provides travel tips and stories through its on-line travel magazine, and plans meetings. Elsewhere, Home Depot is creating more value in the user role by designing a web site dedicated to explaining 100-plus home projects in easy-to-follow steps and recommending the required tools to complete them. If the buying role starts the interaction, the user role sustains it—and e-commerce provides the tools to make it better.

Before the emergence of e-commerce, *the selling/dispersing interaction* of customers was a relatively untapped source of revenue opportunity. Today it flourishes, as C2C auction businesses like eBay and Bid.com, to name a couple, are attracting many new visitors daily. eBay has posted positive earnings for the past three years and, as of late summer in 1999, traded at a market capitalization of more than \$15 billion. As sites like eBay grew in popularity, companies like iEscrow emerged as support businesses. Specifically, iEscrow reduces the customer cost of risk. For example, a buyer sends funds to iEscrow, which then instructs the seller to send the goods to the buyer.

Once the buyer approves the merchandise, iEscrow then releases the funds to the seller. VerticalNet, as another example, is a B2B auction service allowing companies to sell off excess inventory and other items, with VerticalNet earning commissions on each sale. Dell and Gateway's hardware upgrade and disposal programs, in turn, accelerate the potential to earn additional revenues. More and more, the selling interaction is proving to be a source of value for companies and customers alike.

The customer *co-creation interaction* plays out in two primary ways: as a collective contribution from many customers, or as a self-directed effort from a focused individual. For the former, consider Fiat, Red Hat, Netscape, and Zagat Survey. Fiat tested new design concepts with more than 3,000 customers online generating ideas to improve its product line, while numerous loyal users and programmers created and continually refined Linux till it became a viable and competing operating system to Microsoft's Windows program and enabled companies like Red Hat Software to derive commercial benefits. Netscape worked with AC to develop a software application that allows its customers to demonstrate and test server software in the customer's own network environment. The Zagat Survey, now on-line, is a popular leader in restaurant advice creating value for customers through its dependable packaging of comments and scoring from other customer reviewers. Businesses like Getty Images'Art.Com, iPrint.com, and Seven Cycles co-create on a one-to-one basis. Art.com has a simple but effective premise of having customers choose their posters or prints, mats, and frames for assembly, providing co-created value and lower cost. iPrint, an on-line self-service print shop, claims a 25-50% savings on printing costs for consumers by allowing them to design and order their own products. And finally, Seven Cycles, a small custom-build bicycle manufacturer, has an interactive, on-line process to enable high-quality conscious customers to select materials and recommend design configurations—all for a premium price. Co-creating through e-commerce is rich in potential and exacting in defining and refining the product/service details that matter to customers.

Acting on the *integration* interaction of customers may well represent the most fertile ground for innovative value solutions. Taken logically forward, customer integration culminates in what can be described as "Consumer Intentions"—from the more complicated ones, such as moving to a new commu-

nity or planning for retirement, to the more ordinary, as in paying bills or listening to music. Ultimately serving customer intentions involves weaving together a seamless offering of products, services, and information across many suppliers and complementary producers. Building such an "Intentions Value Network" can forge high barriers to entry. Emerging IVNs exist today. In particular, Microsoft's HomeAdvisor integrates content and services to satisfy the consumer intention of "moving to a new community," partnering with American Finance & Investment, Principle Residential, RE/Max, SchoolMatch, and RentNet. In another case, Essential.com offers one-stop shopping for all the essential services needed to run a home or business, providing a "single bill for all the utilities." Others like Planet Rx (eCenter for health and well-being) SkyMall (one-stop access to Web travel sources), and Garden.com (high-quality garden supplies and advice) subscribe to a similar, integrating model. Customers have varied needs, and those organizations that conveniently integrate products, services and information will likely go farther and faster in the eEconomy.

Value Innovations in Action

Let's return to the retail brokerage industry. Today online transactions are estimated to comprise approximately 25% of all brokerage transactions. The number of online brokerage accounts has grown rapidly, from three million in 1996 to seven million at the close of 1998, representing more than \$420 billion in account value.

New entrants in this industry modified how customers realized value chiefly across the interactions of buying, using, and co-creating. These e-brokers re-configured the traditional value bundle by mostly *reducing* and *eliminating* performance attributes, while *creating* one key one, to produce a focused value bundle of dramatically lower cost (\$15 a trade vs. \$75) and reduced value (re: performance). User attributes such as IPO access, custody, reputation, advice, and research data and reports were either reduced or eliminated. The buyer attribute of ease of purchase, however, evolved into the newly created 24x7 account access. In addition, the e-brokers leveraged the customer's new capabilities to co-create value. Instead of offering financial planning, or specifying product needs or investments, the online broker relied on the customer's new capabilities to co-create these elements by integrating infor-

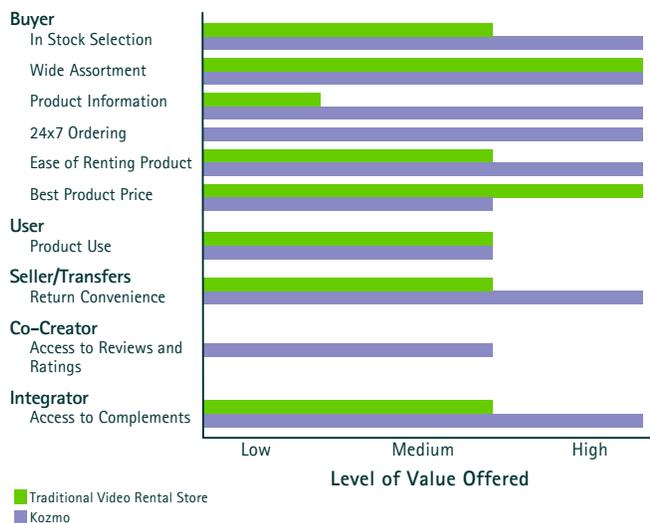
mation from multiple online sources before making a trading decision. The result has been reduced cost of service to the customer. As customers go towards greater self-service and leverage the new capabilities enabled by electronic commerce, it becomes more difficult to justify high expenditures on full service brokerage. For many, the substantial savings in direct financial costs have far outweighed the perceived higher costs of acquisition effort and functional risk.

Consider the videocassette rental market. New formats and potential new channels continue to pose threats to an industry that analysts nonetheless expect to grow from \$15.7 billion in 1997 to an estimated \$22.0 billion in 2002. The market leader's share is three times that of the nearest competitor as the industry further consolidates. Enter Kozmo. While some have reduced or eliminated performance attributes to drive down cost, Kozmo raised the performance of key attributes. Tucked away in New York's Greenwich Village, this new entrant has released novel themes to an old story of video rental.

Since early 1998, when it became the first online video store with a local delivery infrastructure, Kozmo has differentiated itself from traditional players. Namely, the company delivers greater value along the customer interactions of buying, transferring, and integrating—at a lower total customer cost. As a consequence, the company has enjoyed a 75% retention-rate with new subscribers and has expanded its concept to other major cities. It's pitch? Kozmo delivers in less than an hour an integrated bundle of videos and an impulse snack items. In the process, it has become New York City's largest single retailer of Ben & Jerry's ice cream.

Kozmo improved the buying process and significantly lowered the acquisition cost through its on-line ordering, which takes a user about three minutes to process an order. Moreover, the video selection is far superior through Kozmo's centralized inventory. One Kozmo site—at a cost of \$25,000 in building expenses—reaches the same area as roughly 20 traditional rental stores. The company uses a fleet of bike messengers to fulfill orders from its warehouse of 20,000-plus videos. A customer may return a movie (transferor role) at drop-off boxes located at *any* of Kozmo's 30-plus restaurants and deli partners, who in turn enjoy the benefit of the extra foot traffic. A movie rented from traditional video stores, in contrast, must be returned to the *same* store. Figure 2., provides a comparison of the Kozmo and traditional video store value propositions.

Figure 2: Comparing Value Propositions:
Kozmo vs. Traditional Video Retail Store



Reconstructing Value

In sum, there are four key steps to guide the process of reconstructing value in the eEconomy: re-assessing key customer interactions, re-thinking and reconfiguring performance attributes within these customer interactions, critically examining the customer perceptions of value and—in particular—total customer costs, and selecting and executing the new value proposition.

Re-Assess Current Customer Interactions: The buyer, user, seller, co-creation and integration interactions define the five key ways in which customers realize value. They provide the critical anchor points from which to evaluate how to move forward. Most managers typically focus on the buyer and user interaction and forgo the opportunities in the other interactions. Asking how an organization can improve, or, perhaps focus on, any or all of these interactions is the key starting step. By focusing on these customer interactions, executives can specify the key product/service attributes their company offers to create value for the customer in each of these interactions.

Re-think Performance Attributes. By examining the offerings of competitors and using relative benchmarks, executives can compare the performance to determine industry baselines. In doing so, managers can discover gaps of performance and opportunities to create new value for customers.

Re-examine Assumptions of Customer Value: Managers often do not consider the full set of variables that shape customer perceptions of value. Expanding the definition of customer value to account for customer risks and efforts in the key interactions provides new opportunities to deliver customer value. By going further and observing each of the customer interactions, managers can also review their assumptions of which attributes most drive customer perceptions of value and identify new attributes that can matter to customers.

Select and Execute the New Propositions: In finding a distinctive place on the new customer value frontier, companies must choose what performance attributes to raise, reduce, eliminate or create in the new proposition. Ultimately selection alone is insufficient. Distinctive competitive advantage and superior earnings are only realized when the company develops the capabilities and organization that successfully executes the new value proposition.

Realizing value innovations is not easy, requiring change on multiple organizational dimensions and to many technology systems. Ultimately those who begin now and "value innovate", organizing for change and effectively aligning their organizations to new and compelling value propositions are likely to find success. Those who don't begin will be the also-rans in the race to win in the eEconomy.

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