

Making Business Sense of the E-Opportunity

New Web technologies are offering companies unprecedented opportunities to rethink strategic business models, processes and relationships.

David Feeny

Most corporate executives are convinced by now that the scale and pervasiveness of today's technological change require a fundamental review of business strategy. Web-based technology — through the Internet, intranets and extranets — offers universal connectivity at astonishingly low cost, with a simple, standardized user interface. The new technology is creating opportunities to rethink business models, processes and relationships along the whole length of the supply chain in pursuit of unprecedented levels of productivity, improved customer propositions and new streams of business.

But the scope of the potential for change is daunting. The burgeoning e-business literature bombards executives with ideas competing for their attention. It is hard to make collective sense of it all or to know where to start the strategic analysis. Moreover, e-business ideas are described in unfamiliar terminology — “portals,” “infomediaries” and “aggregators” in “B2C/B2B/BTE” settings. Behind the new language, how new are the strategic concepts? To what extent are the old dogs of the established economy required to learn new tricks?

The success of Amazon.com, Dell Computer, eBay and others served as a wake-up call for many executives. But companies in, say, chemicals, helicopters or credit-card services are likely to find their strategic opportunity taking a different form.

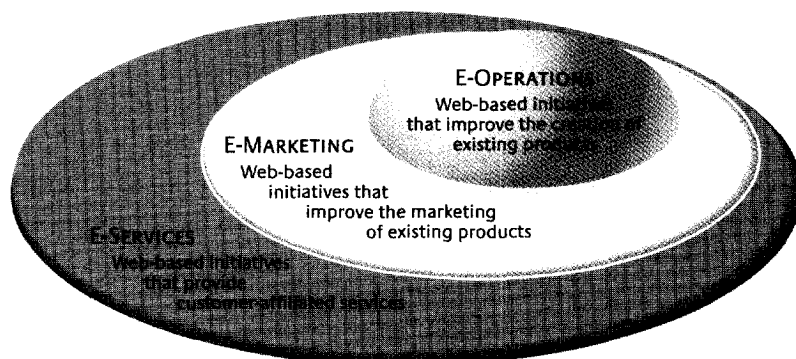
A first step in confronting the challenges is to construct a coherent map of the *e-opportunity*. With the mood swings of the financial markets and the faltering fortunes of New Economy icons, the business community at large still feels uncertainty about the future shape and scope of e-business. A comprehensive map of the e-opportunity and its three domains (operations, marketing and customer services) can become a platform for exploring the new strategic landscape. In each domain,

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Illustration: Bill Fymire/Masterfile

The Domains of E-Opportunity



and shopping robots such as mySimon.com, which scour the Internet to find the best deals available. Some Old Economy businesses float an e-service business as a new venture — for example, Overseas Chinese Bank Corporation's Bank of Singapore has a financial-services venture called finatiQ.com. Others may begin to redefine their core business, as Ford Motor Co. is doing in seeking to become "the world's leading consumer company for automotive service."¹

Defining e-opportunity domains using a business-oriented perspective and language illuminates the role of new technology in competitive

the technology can enable a radical new vision of what a business can accomplish. (See "The Domains of E-Opportunity.")

E-operations opportunities are uses of Web technology that are directed at strategic change in the way a business manages itself and its supply chain, culminating in the production of its core product or service. For example, technology underpins BP Amoco's initiatives to troubleshoot more effectively by sharing the learning of its businesses around the world. General Electric Co. improved its purchasing by posting requirements on a Web site and having suppliers submit bids electronically.

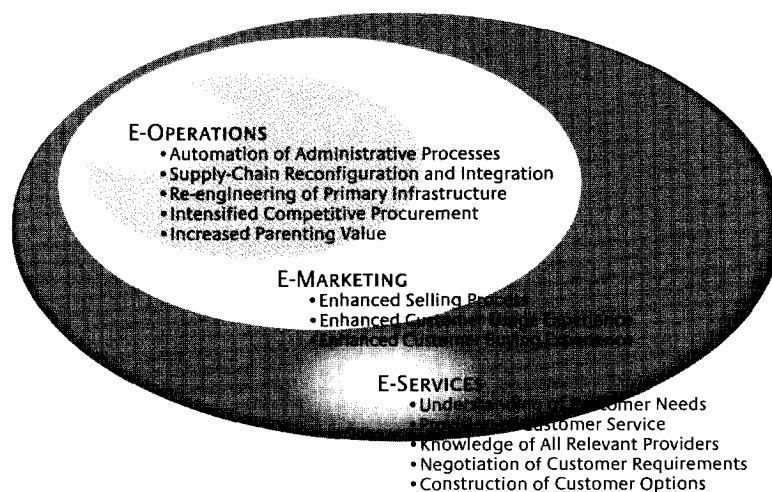
E-marketing opportunities cover Web-based initiatives that are designed to achieve strategic change in downstream activities, either through direct interaction with the customer or through a distribution channel. In e-marketing, a traditional product remains the focus of the business and its revenue generation, but the way the product is delivered or the scope of support services changes. The provider may be a traditional incumbent or a new pure-play entrant: a Barnes & Noble or an Amazon.com, a Toys "R" Us or an eToys. The financial-services sector is illustrative. In that arena, established companies and new competitors are forging links to established intermediary channels, to new intermediaries and to the customer directly — while continuing to focus on the delivery of traditional financial-services products such as savings accounts, credit cards and mortgages.

E-service opportunities give companies new ways to address an identified set of customer needs. Rather than promoting proprietary products, the e-service business acts as the customer's agent in achieving a desired outcome. Most current examples are New Economy businesses: Chemdex, the information intermediary in the biosciences sector; OneMediaPlace (formerly Adaction.com), which provides buyers and sellers of advertising space with a radically new set of services;

and shopping robots such as mySimon.com, which scour the Internet to find the best deals available. Some Old Economy businesses float an e-service business as a new venture — for example, Overseas Chinese Bank Corporation's Bank of Singapore has a financial-services venture called finatiQ.com. Others may begin to redefine their core business, as Ford Motor Co. is doing in seeking to become "the world's leading consumer company for automotive service."¹

Defining e-opportunity domains using a business-oriented perspective and language illuminates the role of new technology in competitive advantage. Technology prompts new business practices rather than new business theories. In other words, successful e-strategies translate established strategic concepts into contexts in which they previously were not economically viable. In the 1960s and 1970s, IBM won the loyalty of major corporate customers through highly paid account executives who provided what IBM called "relationship management." That approach to supporting individual consumers is now technologically based. Distinguishing between the three e-opportunity domains is critical. Each requires its own distinctive framework for identifying ideas that can bring competitive advantage to a given context. Every business should be considering opportunities across all three domains, but the potential significance of each domain, and of individual ideas within it, will vary widely across businesses and industry sectors. Although it is tempting to begin with the excitement of e-service — the Brave New World of the New Economy — in practice, the e-operations and e-marketing layers require the most urgent attention and

The Three E-Opportunity Domains and Their Components



Web technology may enable a new round of re-engineering of the primary infrastructure and lead to faster turnaround of customers' orders, enhanced customer support, improvements in a product's unit-cost structure and shorter time to market for new products.

provide the most certain rewards. As so many dot-coms have demonstrated, if you have e-vision but a single marketing approach and a poor fulfillment capability, you don't really have a business.

The E-Operations Opportunity

Initially, the e-operations applications of most organizations consisted of electronic versions of policy documents and newsletters mounted on an intranet. But the real e-operations opportunity has five potential components. (See "The Three E-Opportunity Domains and Their Components.")

The Shape of the E-Operations Opportunity The first and most straightforward e-operations-opportunity component is the opportunity for automating administrative processes. Businesses are increasingly using their intranet infrastructure for the low-cost administration of "necessary evils" — enrolling and training new employees, claiming travel expenses, buying pencils and the like. The improvements in cost efficiency are unlikely to have a competitive impact on cost structures. But as Cisco Systems and Schlumberger have demonstrated, such applications create a more IT-literate work force and a more nimble business culture.²

A second and more fundamental component is the new technology's ability to trigger a review of the business' primary infrastructure: its core processes and the software base that support them. Web technology may enable a new round of re-engineering of the primary infrastructure and lead to faster turnaround of customers' orders, enhanced customer support, improvements in a product's unit-cost structure and shorter time to market for new products.

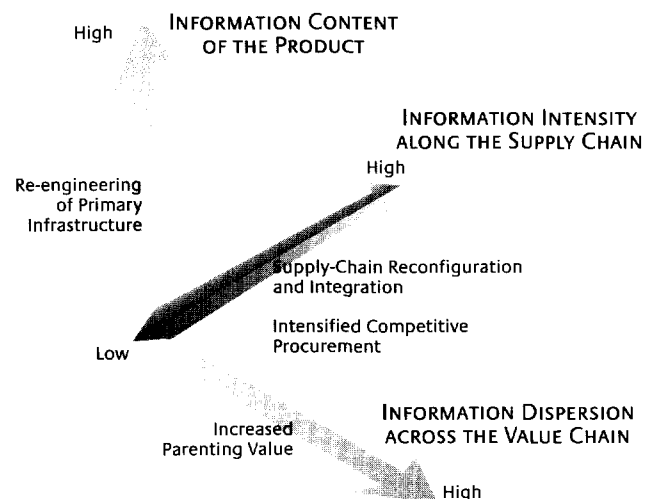
The third component, increased parenting value, relates to improving the performance of individual business units through help from other "members of the family."³ At BP Amoco, for example, an initiative by the center (or parent company) enables each natural-resource-exploration unit (or child) to share learning with its peers (or siblings).⁴ At fast-growing Regus, the company intranet is a tool for making

the center's view of best operating practice available to the service staff at each office around the world. At Spotless Services, each of the catering units that serve customers across Australasia improves their purchasing through links to group-wide contracts.

The fourth component of the e-operations opportunity is intensified competitive procurement through electronic buying, such as that pioneered by General Electric. Electronic buying can mean a wider supply base, more-competitive prices and lower administrative costs. Increasingly, electronic-buying initiatives are planned at the sector level rather than the company level. An example is the General Motors/Ford/DaimlerChrysler collaboration that, by one estimate, will enable savings of more than \$1,000 per car.

The fifth component, supply-chain reconfiguration and integration, uses technology to enable the virtual enterprise.

The E-Operations-Opportunity Model



Companies identify the ideal network of provider partners, arrange for all selected members to have immediate access to relevant information and give the whole network the advantages of a vertically integrated business (say, focus and response speed at each point in the supply chain) without the

Ideas That Fuel E-Marketing Opportunities

Category	Marketing Idea	Concept	Example
Enhanced Selling Process	Customer Input	The involvement of customers in our development process will lead to better new products.	Ford has put its design studio online to obtain the feedback of selected customers.
	Customer Targeting	Tracking customer status enables us to offer the relevant product, at the relevant time.	Amazon notifies customers of new book-buying options based on a profile of previous purchases.
	Customer Aggregation	We have a new ability to reach and serve economically a dispersed customer segment.	eHobbies uses the Internet as a channel to reach model-train enthusiasts around the world.
	Benefit Selling	We can improve the way we illustrate to the customer the benefits our product provides.	Timex provides a downloadable simulation of its novel i-Control watch-setting system.
	Achievement Selling	Loyalty is strengthened when we show customers our track record of meeting commitments.	W.W. Grainger tracks and documents savings made by its corporate customers for maintenance supplies.
Enhanced Customer Buying Experience	Solutions-Specifier Proposition	We advise the customer on the types of products required to meet their needs.	Home Depot provides customers with everything they will need to carry out a do-it-yourself project.
	One-Stop Shopping Proposition	Through links with providers of complementary products we meet more of the customer's needs.	Office Depot links to sites such as stamps.com, TelePost to increase its coverage of overall customer needs.
	System-Design Proposition	Our facilities enable the customer to design the overall system to which our products contribute.	Herman Miller's "room planner" enables design of new furniture for existing office layouts.
	Fastest-Source Proposition	We offer the customer the best chance of getting what they want quickly, with minimum hassle.	The core of Amazon.com's book-buying proposition and many other Internet offerings.
	Product-Specifier Proposition	We help customers understand the optimal product specification for their needs.	Lands' End allows the customers to create a "personal model" on which they can test the fit and look of swimwear.
	Tailored-Product Proposition	We rapidly deliver to the customer's individual product specification.	Chipshot.com allows expert golfers to configure clubs to their own preferred specification.
Enhanced Customer Usage Experience	Added Service Proposition	As well as providing product, we help improve some aspect of the customer's operational activity.	Lonely Planet publications provides an online "travel vault" for storage of travelers' critical information.
	Tailored Support Proposition	The support services for our products are tailored to reflect the customer's needs and practices.	A Dell corporate customer has a "Premier Page" online for employees to access the agreed level of support.

disadvantages. Dell Computer's CEO Michael Dell believes that if his company were vertically rather than virtually integrated, it would need five times as many employees and would suffer from a "drag effect."⁵ Any business that operates a build-to-order strategy eventually will need to embrace supply-chain-integration concepts.

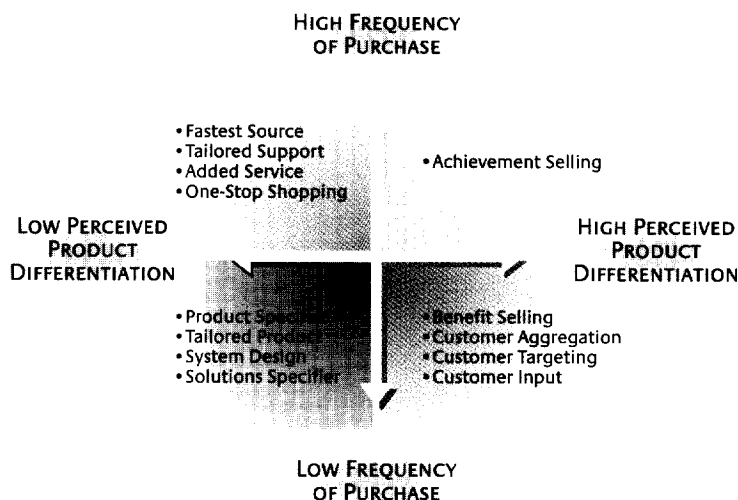
The e-operations opportunity may look familiar. Businesses have long been accustomed to evaluating the benefits of updating their infrastructure as technology changes. Supply-chain integration represents the logical, economical extension to all suppliers of the electronic-data-interchange links laboriously established with large suppliers in the 1990s. Even the parenting ideas that Regus pursues are similar to the 1980s example of Mrs. Fields Cookies, which sought to embed the operational thinking of its founder into hundreds of small retail outlets across the United States.⁶ But the fact that an idea is familiar does not rule out the potential for competitive advantage — particularly if technology now enables radical improvements in the implementation of the idea. For some businesses in some industry sectors, the highest priority should be investment in the components of e-operations. The question is, Which ones?

Identifying the E-Operations Opportunity The strategic significance of e-operations ideas to a particular business is a function of the role of information within that business.⁷ Companies need to examine the role of information on three different dimensions: the information content of the product, information intensity along the supply chain, and information dispersion across the value chain. (See "The E-Operations-Opportunity Model," p. 43.)

Information Content. A high level of information content in the product (found in industries such as financial services and publishing) signals the importance of reengineering the primary infrastructure of the business. An adequate infrastructure is a necessity for every company. But if information content in the product is high, the infrastructure will be central to competitive advantage: It will drive product availability, functionality and cost structure. In banking, infrastructure is a more fundamen-

The E-Marketing-Opportunity Model

The right e-marketing approach depends on how frequently customers purchase the product and how much differentiation they perceive between competing products.



tal priority than the launch of an Internet banking service. In research-based pharmaceutical companies, too, the information amassed through a product's development process dictates the primacy of infrastructure, which must support discovery, trials, regulatory submission and product-advice activities.

Information Intensity. Information intensity along the supply chain points to the importance of either intensifying a company's competitive procurement or reconfiguring and integrating the supply chain. Automotive and aerospace companies are examples of enterprises with high levels of information intensity. Often they track hundreds of thousands of the components. In such industries, the availability, quality and cost of the product are dependent on the way the supply chain is managed. Businesses competing on price will probably favor the intensified-competitive-procurement approach, whereas those stressing some form of differentiation are more likely to find advantage in supply-chain reconfiguration and integration.

Information Dispersion. The opportunity for increased parenting value is greatest when there is a high level of information dispersion across the value chain — for example, when one or

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more of the company's activities are performed at multiple geographical locations.⁸ High levels of information dispersion are becoming more common as even small and midsize businesses become global. A parent-company initiative to coordinate information across replicated activities can lead to shared learning, scale economies and companywide consistency in the way an activity is performed.

The E-Marketing Opportunity

Businesses differ widely in the scale and scope of their e-operations opportunity. Identifying that opportunity (or the lack of it)

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is the first task for the strategist, but it is not a predictor of the level of opportunity in the other domains. Even a business that rates low on all three information dimensions in the e-operations-opportunity model may be able to change its competitive fortunes through opportunities in the e-marketing and e-service domains.

The Shape of the E-Marketing Opportunity E-marketing strategy leverages new technology to get more-effective ways of selling a business's product to existing or new customers. There are three broad categories of e-marketing opportunity:

- enhancing the selling process (making the sales effort more effective through better product and market targeting or by more successfully expressing the characteristics and benefits of the product);
- enhancing the customer's buying experience (providing support services that make the product easier to buy or better matched to the customer's needs); and
- enhancing the customer's usage experience (providing support services that increase customer satisfaction over the life cycle of product use).

Although the full potential of those e-marketing-opportunity components is as boundless as marketing creativity, many success stories share features in common. For example, the fastest-source proposition was important in the triumph of category-killer retail chains such as Toys "R" Us back in the bricks-

and-mortar days, in the case of American Hospital Supply and its online links to corporate customers in the 1980s, and in the success of Amazon.com today. Each of the building blocks of marketing strategy, from customer input to a tailored-support proposition, can be improved with the help of Web technology. (See "Ideas That Fuel E-Marketing Opportunities," p. 44.) A few companies, such as Amazon and Office Depot, have embraced several marketing ideas, but most do not. The objective is not to implement as many ideas as Web technology allows but to identify and pursue the few that will bring competitive advantage to a particular company. Marketing ideas are not sector specific, nor do they come with stickers such as "for business-to-customer use only." For each idea, there may be examples relating to both business customers and consumer customers.

Identifying the E-Marketing Opportunity Given that Web technology makes many new marketing initiatives technologically and economically viable, strategists must identify which particular initiatives will work for their company. A new framework can pinpoint the business and customer contexts in which a given idea is most likely to bring value to the customer and reward to the business. (See "The E-Marketing-Opportunity Model," p. 45.) The framework relies on two constructs that are consistently powerful determinants of business and customer contexts: perceived product differentiation and frequency of purchase.⁹

Perceived product differentiation captures the strategic marketing context of a business. For a product with a high level of differentiation, the marketer will want to emphasize enhanced-selling-process ideas — those that promote the creation of distinctive products, the targeting of distribution to customers who will appreciate that distinctiveness, and the successful pre- and post-sale articulation of the benefits of the product. By contrast, providers of products perceived as having a low level of differentiation should select initiatives from the enhanced-customer-buying-experience and the enhanced-customer-usage-experience categories to create an overall positioning distinct from the competition: "My basic product is no better/no worse than my competitor's, but I provide the customer with additional value by..." The logic of such broad prescriptions is that buyers of differentiated products will want to evaluate alternative providers carefully before making a choice, whereas buyers of undifferentiated products will be less inclined to shop around and more likely to settle quickly for an offer that matches their expectations. If a particular customer does not share the provider's view of the product's level of differentiation, however, the logic breaks down. The word "perceived" is key. Differing customer perceptions of product differentiation become the basis for market segmentation.

Frequency of purchase is the other main determinant of buying behavior. Customers who are regularly in the market for a particular product have different requirements from those who are not. The lower the frequency of purchase, the more likely it is that customers will have information needs during the buying process and will respond favorably to a provider whose marketing initiatives help them navigate unfamiliar territory. However, customers who frequently purchase a product have already assimilated the necessary information and are more likely to respond to initiatives that minimize their overall transaction costs. In the frequency-of-purchase dimension, as in the perceived-differentiation dimension, the overall product market may need to be segmented, with different propositions attracting high- and low-frequency buyers.

The quadrant of the e-marketing-opportunity model where high frequency of purchase meets low perceived product differentiation contains four marketing ideas, two from the enhanced-customer-buying-experience category and two from the enhanced-customer-usage-experience category. Each of the four helps reduce hassles for the customer, who is in other respects acquiring a product perceived to be no better or worse than those available from other providers. Many high-profile dot-com "e-tailers" are operating in that quadrant, offering a standard branded product but capitalizing on the new technology's ability to extend product reach and service range.

The quadrant where low-frequency of purchase meets low perceived product differentiation also contains four marketing ideas, all from the enhanced-customer-buying-experience category, but this time related to helping the inexperienced buyer to refine choice. The public Web sites of most bricks-and-mortar businesses — referred to dismissively as brochureware — represent first steps. Their importance will grow as businesses more deliberately integrate the sites into an overall clicks-and-mortar marketing strategy.¹⁰

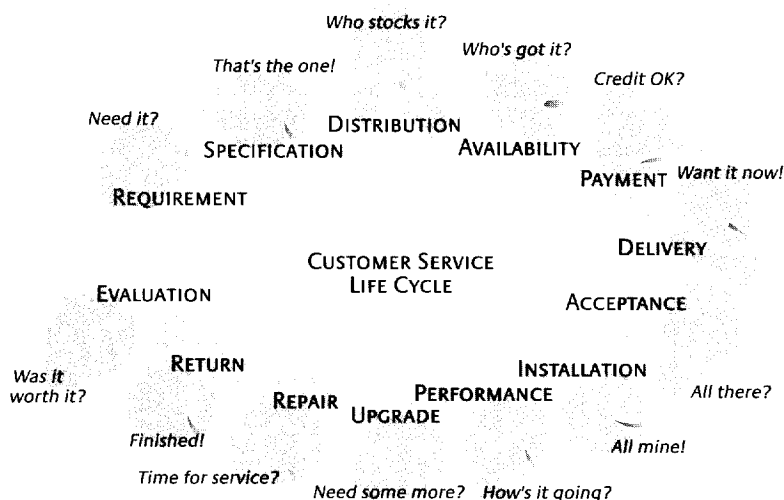
Four marketing ideas from the enhanced-selling-process category appear in the quadrant where low frequency of purchase meets high perceived product differentiation. The ideas all relate to enriching a company's targeting in a context where customers' infrequent forays into the market must be captured and the benefits of distinctive products appreciated. As broadband access becomes the norm, the use of video will greatly increase the potential of customer input and benefit selling; the increasing availability of customer-activity information will support new ways of targeting customers.

The quadrant where high frequency of purchase meets high perceived product differentiation contains just one marketing idea — achievement selling, which focuses on reinforcing the customer's choice. Achievement selling aims to prevent a regular buyer of a distinctive product from taking the product's benefits for granted. It showcases a company's track record in meeting commitments. The track record then becomes the basis for repeat purchases.

At first glance, it may seem that the e-marketing-opportunity model is narrowly prescriptive, a mechanistic approach to a marketing strategy. Used as a recipe, the model will not work. Rather, it is a structure for facilitating a debate within a business's executive team. The team's first task is to agree on the business context — the quadrant that represents its product and market environment. If the team has difficulty agreeing, it needs to seek out the cause. Do team members have contrasting views on the level of perceived differentiation? Are they basing their thinking on different types of customers? What information will help resolve the different opinions to bring the team to a rich, shared picture of the e-marketing context?

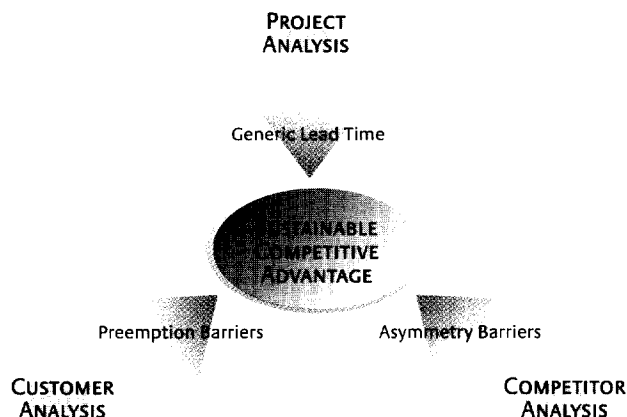
There are a number of reasons why a business might quite correctly conclude that it is operating in more than one quadrant. It may have customers in both high- and low-purchase-frequency categories or customers who have contrasting views

The E-Service-Opportunity Model



of the level of differentiation in the marketplace. More subtly, a single customer might be operating in more than one quadrant. For example, the typical customer of a popular music retailer might be a high-frequency purchaser of CDs, a medium-frequency purchaser of CDs recorded by a favorite artist and a

The Sustainability Model



low-frequency purchaser of a particular recording.

Having decided in which quadrant or quadrants the business is operating, team members can debate the potential form and effectiveness of each of the relevant marketing ideas and can decide on priorities. The highest priority will be the cases in which it is clear that new technology can actualize the relevant idea in a way that is substantially superior to the idea's current incarnation. It is pointless to offer consumers, as one U.S. manufacturer does, the opportunity to buy chewing gum over the

E-service requires authoritative knowledge of the products and services of all providers that might contribute in the target market space.

Internet. The manufacturer may have correctly ascertained that the typical customer is a high-frequency purchaser of a low-differentiation product; but the fastest source of chewing gum for that customer will surely be the nearest corner store. Web-based initiatives in the low-perceived-differentiation and low-frequency quadrant need particular attention: Customers who are only occasional buyers may not find the Internet the most convenient vehicle for the refinement of choice unless they are regularly logged on for other purposes.

Even in information-oriented industry sectors, the appropriate e-marketing initiative may be an incremental enhancement within an integrated clicks-and-mortar marketing approach. The

best solution to many customers' banking needs combines Internet access for account status, ATMs for cash withdrawals, and traditional branch facilities for financial-planning discussions.

The E-Service Opportunity

An analysis of a company's e-marketing opportunity identifies pragmatic and incremental steps forward, just as an analysis of its e-operations does. The longer-term future — and the more imaginative leaps — can be uncovered in the e-service opportunity.

The Shape of the E-Service Opportunity E-services represent the ultimate aspiration of the Information Age, with their electronic orchestration of offerings that span the breadth and lifespan of a customer's needs within a chosen and defined market space.

Although there is a gap between aspiration and achievement, a new wave of dot-com businesses and an increasing number of traditional incumbents are currently active in the e-service domain.

E-service starts with a full understanding of customers' needs across a given market space, a rich and expert picture of what happens to customers in the space and what they are seeking to achieve. Synthesizing that macro understanding with data on the history and status of individual customers can allow companies to give customers advice on their specific needs. Baxter Renal has been cited as a good example of a company that redefined its business, going beyond the provision of the disposable bags required for kidney dialysis in the home to become a source of expertise in how patients can manage their lives around their treatment needs.¹¹

E-service also requires authoritative knowledge of the products and services of all providers that might contribute in the target market space. Chemdex provides comprehensive knowledge within the biosciences arena; credible investment-advice providers do the same in their arena.

An e-service business can bring together in real time the first two components of the e-service domain (understanding of customer needs; knowledge of all relevant providers) to present customers with the best choices.

For example, software developed by Frictionless.com pre-evaluates options against customer-specified criteria. An e-business uses the software, then confirms that the option that meets the criteria best is indeed what the customer wants — and electronically negotiates the closure of the deal. Successful examples include Priceline.com, which allows suppliers (say, airlines) to make electronic offers to meet a customer-specified

For traditional bricks-and-mortar companies, components of e-operations and e-marketing are likely to represent immediate opportunities with real economic benefits. The e-service opportunity will usually take a longer time to realize, but charting an e-service strategy creates a strategic intent that will influence the evolution of the other two strategies.

price (say, \$800 for a round-trip ticket from New York to Greece in August), and Mercata, which achieves lower prices by electronically aggregating a volume purchase on behalf of a group of individual customers (the more people who tell the site they want to buy a particular model of an appliance, for example, the lower everyone's price becomes).

The e-service business stands ready to make alterations if the need arises. Suppose a customer decides that a previously arranged vacation has to be canceled because of a family illness. After a single alert, the company will cancel all bookings and submit the customer's claim for the insurance it included in the vacation package. If another customer's building project experiences an unexpected problem, the e-service business is at hand to help troubleshoot and reschedule all future materials and services in accordance with the revised plan.

Visions of the perfect agent who knows your mind and acts in real time on your changing needs may sound too good to be true — and currently it is. But the e-service opportunity cannot be ignored or its identification deferred to some far-off date. Examining the scope of the opportunity can help in developing target capabilities and in setting priorities for e-operations and e-marketing strategies. CEO Jacques Nasser's service-based vision for Ford may take years to deliver, and the vision may change along the road, but it already has influenced the company's acquisition policy and its drive to make the whole work force more IT literate.¹²

Identifying the E-Service Opportunity To identify the e-service opportunity, a company must first define the target market space. For an already established business, the obvious starting point is the brand image and values recognized by the existing customer base. An e-service initiative for Ford will have something to do with personal transportation; for guidebook publisher Lonely Planet, it will be about personal travel. Some businesses may have a wider choice. For example, the Virgin brand name evokes a style and approach to life more than a specific product or service. Virgin has the potential to establish market-space initiatives in a number of different fields, including entertainment, the media and travel.

Next the company must decide whether the market space should be built around the customer's needs over time (for example, ongoing professional-development services) or around an event in the customer's life (for example, an everything-forgetting-married service or a corporate-road-show service). The company should choose an arena in which it is likely to have credibility with customers.

Because consideration of and insight into the customer context is the only route to selection and implementation of an e-service initiative, the appropriate framework for identifying the opportunity is the customer-service life cycle. Originally an IBM planning tool, it represents a simple intuitive structure for a discussion about the experience a customer undergoes at each of 13 stages. Understanding the customer's psychological state at each stage is critical. Unless the customer is unhappy at some point in the customer-service life cycle, it is unlikely that the opportunity for an e-service business will emerge. But at any point that the existing cycle is defective, potential for an e-service business exists. (See the exhibit "The E-Service-Opportunity Model," p. 47.)

Chemdex, for instance, enters at the distribution and availability stages because up-to-date market information is problematic in the fast-changing bioscience world. Having addressed the distribution and availability for the bioscience customer, Chemdex can extend its service into the later stages of the cycle. By contrast, Kodak, with its PhotoNet initiative, identified an aspect of performance — the ability of customers to share their images with friends and relatives — as the most susceptible to improvement. For John Deere, with its DeereTrax initiative, the target is the repair stage. DeereTrax monitors equipment usage, helping farmers do timely maintenance and avoid costly unscheduled downtime. Each company successfully targets a problematic stage in the customer-service life cycle and secures two vital benefits: the customer data that will assist in extending overall e-service and the resulting customer trust.

The final e-service issue is, Who needs it? The answer: all sectors. If another company (new or old) seizes an e-opportunity, it will own the customer relationship. Traditional providers will be reduced to commodity players. That is why it is so important

for executives to spend time identifying what the opportunity might be. In the travel-information sector, for example, the emergence of e-service providers seems inevitable: The issue for a Lonely Planet is not whether its traditional product is replaced by online information from a service provider but when it will happen and what it will take to be successful.

Determining the Sustainability of E-Opportunity Initiatives

An analysis of e-opportunity is incomplete without a look at the potential for sustaining any competitive advantage gained by e-operations, e-marketing and e-service initiatives. The diagnostic model points to three potential sources of sustainability. (See "The Sustainability Model," p. 48.)¹³

The first and most obvious axis of sustainability, *generic lead time*, is a function of the technological and business changes required to implement a strategic initiative. It is tied to project analysis: How long will it take for technological and business changes to be replicated by competitors? Because applications of Web technology may be rolled out in a matter of weeks — or sourced from a specialist software supplier — companies often assume that lead time's contribution to sustainability is no longer significant. But that may not always be the case, particularly for e-operations initiatives. The upgrading of primary infrastructure may take years, not months, especially if a new generation of integrated ERP (enterprise-resource-planning) systems is required. And although supply-chain initiatives may have short technological lead times, they may well involve lengthy negotiations with numerous suppliers.

The second axis of sustainability, *asymmetry barriers*, involves competitor analysis. If a competitor copies the planned initiative, will that cancel out any competitive advantage? Or are there barriers that preserve the advantage? For example, asymmetry barriers protected Dell Computer from Compaq in the area of direct selling of customer-tailored PCs via the Internet. Compaq could not easily copy its arch rival's success because it had not designed its products for mass customization, and its supply-chain structures, relationships and processes were different from Dell's.

The third axis of sustainability involves customer analysis. Does the customer context allow for the creation of *preemption barriers*, or first-mover advantage? If there is a natural monopoly for the product or service, the answer is probably yes. Consider the electronic bookstore. If customers perceive that e-bookstores provide access to all books, they will buy consistently from the first place they enroll. They won't shop around. Their familiarity with navigating the Web site — and their knowledge that the e-bookstore has collected data on them that

will smooth the book-buying process — make replicating the relationship elsewhere seem daunting. Customers will stay with the first-mover company unless a competitor produces a substantially better offering that compensates for any switching costs. More commonly, the first mover retains the business unless the customer becomes seriously dissatisfied. Jeff Bezos' obsession with customer service demonstrates that Amazon.com understands the principle.

In the mid-1990s, the thinking was that sustainable competitive advantage was based almost entirely on asymmetry barriers, which favored asset-rich companies. When companies such as Amazon.com and eBay grew rapidly from effectively zero-asset bases, observers began to suggest that assets were liabilities and first-mover advantage was all. In fact, all three sources of sustainability — generic lead time, asymmetry barriers and preemption barriers — are important. If Barnes & Noble is to lure loyal customers from Amazon.com, for example, it will need an integrated approach that capitalizes on its physical bookstores (its asymmetry) to offer online customers some advantages that Amazon cannot. What has changed in the analysis of sustainability is that some levers have become more available. Companies can increase barriers by protecting the intellectual property created in initiatives and by negotiating exclusivity with partner organizations (such as database owners and niche-product providers). Initiatives that organize customers into a community that adds value through mutual exchange can raise preemption barriers. Attention to the sources of sustainability — and a proactive approach to increasing them — remains a critical part of strategic development.

Understanding the Domains of E-Opportunity

For traditional bricks-and-mortar companies, components of e-operations and e-marketing are likely to represent immediate opportunities with real economic benefits. The e-service opportunity will usually take a longer time to realize, but charting an e-service strategy creates a strategic intent that will influence the evolution of the other two strategies.¹⁴ The three domains are combined within an overall approach to a business strategy that exploits the new technology.

In an uncertain environment, learning from experience is critical. Few believe that we have penetrated even a fraction of the e-territory before us. The frameworks described here reveal the broad sweep of the territory, the kinds of opportunities available and how choice of direction varies according to a company's starting point. More detailed maps that might enable the strategist to identify and select the precise route to a desired destination will take time to emerge. Meanwhile, businesses must select their course and, with compass in hand, stay as close as the new territory will allow to a bearing that leads to the other side of the jungle.

ADDITIONAL RESOURCES

With so much now being published on e-business, a time-efficient way of keeping track of developments is to read the authoritative and balanced special surveys published periodically by *The Economist*. Those dated June 26, 1999, and Feb. 26, 2000, are still valuable.

Within the e-operations domain, insight into the role of infrastructure in competitive advantage can be found in Peter Weill and Marianne Broadbent's book *"Leveraging the New Infrastructure: How Market Leaders Capitalize on Information Technology"* (Boston: Harvard Business School Press, 1998).

E-marketing ideas can be stimulated by discussion of the scope for differentiation. Theodore Levitt's "Marketing Success Through Differentiation — of Anything" in the January-February 1980 issue of *Harvard Business Review* remains a classic. Another excellent discussion is contained in part two of Shiv Mathur and Alfred Kenyon's "Creating Value: Shaping Tomorrow's Business" (Oxford: Butterworth-Heinemann, 1997).

Some issues relevant to the e-service domain are discussed in Philip Evans and Thomas Wurster's *Harvard Business Review* article "Getting Real About Virtual Commerce," published in the November-December 1999 issue.

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