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John M. de Figueiredo

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Finding Sustainable Profitability in the E-commerce Continuum

Dot-com stock values have reached the stratosphere, but will they stay there? Many retail e-commerce companies may soon find themselves in a race to the bottom, where commodity pricing and razor-thin margins will cause their stock prices to plummet. Others will find that some high-margin goods are extremely difficult to sell on the web. Only those that choose the right markets, products, customer care and branding strategies will create sustainable advantage. But what works well in one market segment will fail miserably in another. Here's how to tell the difference between likely winners and sure losers.*

John M. de Figueiredo

Sloan School of Management E52-545

Massachusetts Institute of Technology

50 Memorial Drive

Cambridge, MA 02142-1347

Tel: 617-258-7253

Fax: 617-253-2660

Email: jdefig@mit.edu

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Warren Buffet, the president of Berkshire Hathaway and one of America's most storied investment managers, remarked last year that if he were teaching an MBA class on finance, the final exam would have one question: "How do you value an Internet company?" He said anyone who turned in an answer would fail.

Clearly, it is extremely difficult to value e-commerce companies on their assets or profits, because most of these companies have little of either. Indeed, even multipliers of revenue are difficult to assimilate into any sensible financial valuation model. Yet, the price appreciation of e-commerce stocks over the past two years has been phenomenal, reaching a one-year gain of nearly 100% and a 5-year gain of 1100%, creating market capitalizations surpassing even some of the most widely-held and admired growth and retail companies on the New York Stock Exchange.¹

As of April 20, the market capitalization of Amazon.com is a stunning \$18.3 billion -- even though the company claims merely \$1.6 billion in annual revenues and has never earned a profit. ebay's market value is \$19.6 billion, despite its unremarkable \$11 million profit on merely \$225 million in revenue in 1999. To put these dot-com valuations in perspective, consider the mere \$14.2 billion market value of Sears Corp., -- which last year garnered more than \$1.3 billion in net income on annual revenues exceeding \$32 billion in 1999. Similarly, FedEx Corp., a traditional "heavy asset" company, is valued at only \$10.9 billion, even though it boasts almost \$700 million in profits on nearly \$18 billion in sales and will almost certainly earn more by delivering the goods ordered up during the dot-com revolution.

Indeed, these market data suggest that *even after the market shakeout of mid-April 2000*, investors would rather own a small and unprofitable e-commerce company such as Amazon rather than Sears -- a company 20 times its size, very profitable, and one of the world's most respected retail outlets.

It is easy for managers to ignore such stock valuations as whims of the market, hype of the venture capitalists, and the craziness of day-trading. However, billions of dollars are riding on such whims, hype, and craziness. Moreover, thousands of the nation's brightest business and engineering minds have chosen to ride the dot-com wave. Given this investment of money and human capital will e-commerce take over retailing and make traditional merchandising a thing of the past? Are current brands dying -- soon to be displaced by new e-commerce brands? Or is

this all just a passing fad? After all, new technologies have created bubbles in the market before. In the 1880s companies built upon the harnessing of a new technology, electricity, saw their stock prices explode 1000%. But it soon became evident to investors that the promise of electricity would take years or decades to offer a return to these companies. Within two years of reaching their peak, electric company share prices fell to between 5% and 15% of their former values.

How can business strategists discriminate between types of e-commerce that will likely be attractive and profitable, and those that will end up in a commodity market structure? Understanding the role of product quality, information transmission, reputation, and risk in the context of industry structure and company capabilities can help us to answer these nagging questions. A market segmentation analysis of the on-line retail trade can shed light on the

1 Hambrecht and Quist, Internet Index, Jan 2000.

2 "Doing Business in the Internet Age," Business Week, June 22, 1998, pp. 121-172.

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industry and product characteristics that drive profitability. These findings lead to a set of segment-specific strategies that companies can employ to reach above industry-average profits and, presumably, high and sustainable market valuations.

Understanding the Product Continuum

On the Web, all goods are not equal. Products possess different attributes and different levels of the same attributes. For example, one important dimension on which goods differ is in the ability of consumers to ascertain the quality of products in cyberspace. On one end of the spectrum are commodity products, where quality can be clearly and contractually articulated and conveyed. Products such as oil, paper clips, and stock shares, all fall under this category. On the other end of the continuum are products for which the perception of quality differs from consumer to consumer and product to product, such as produce, used cars, and works of art. Understanding how difficult it is for retailers to convey quality, reliability, or consistency for certain classes of products over the Web enables businesspeople to think strategically about the likely long-term success of different types of e-commerce ventures. Let us take four points on the continuum between barrels of oil and original oil paintings and examine each in turn.

Commodity Products. Electronic commerce in commodity goods has occurred for decades. Simply open up the *Wall Street Journal* or the *Financial Times* to see the vast array of goods in which transactions are consummated electronically, or through e-commerce. From shares of stocks to pork bellies to ounces of gold, an active e-commerce auction market has existed for decades. Now we see many of these same type and other types of commodity products being exchanged daily on the web. Paper clips, nails, and even Internet bandwidth, comprise this new e-commerce market. Despite a shift in the products, many properties of the market are similar to the more traditional electronic exchange markets.

In these commodity markets, the quality of products can easily be determined by its description. When one specifies a 1-inch, galvanized, #6 flathead wood screw, we need little other information to know precisely what the product is or does. Except in extremely high-performance construction situations, the actual maker of the nail is unimportant. The same is true when we specify a barrel of Texas intermediate crude oil, 100 common shares of Mother Nature.com, or seventeen troy ounces of 18-karat gold. For commodity products like these, the mere title and its attendant specifications convey complete information about their characteristics and quality. Consumers in these markets care little about the identity of the seller; they only care about the correct characterization of the products, the price, and the terms of delivery.

Quasi-Commodity Products: The biggest increase in e-commerce has occurred in quasicommodity products. Books, videos, CDs, toys, and new cars all fall into this class of products.

Economists consider these differentiated products, as opposed to commodity products. And they are correct. In books, for example, there are classic English plays, romance novels, and do-it-yourself guides. Differentiation exists here even within a product niche: think of the difference between mystery writers such as Arthur Conan Doyle, Tony Hillerman and Agatha Christie. However, like commodity products, once a book is chosen by a consumer, it is identical across vendors. Any bookseller offering Hal Varian's *Information Rules* carries the exact same book. There is no difference in the quality of the book, its content, and, if properly shipped, the condition of the book upon arrival. Once a consumer has chosen a title, the competition looks

very much like the commodity market competition for oil, gold and flathead screws. Thus consumers engage in a two-stage decision-making process. First, the consumer must find a book he prefers among the many different books available. After selecting the title,
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the consumer cares primarily about its price and the reliability of the e-commerce vendor. That is, the consumer seeks the lowest price given that his credit card will not be disseminated across the Web, that the book will be in stock, and that it will be delivered undamaged and on time.

“Look and Feel” Goods: If a company *without* a well-known brand name advertised a wool suit on the Web, would it sell? Even if the size fit perfectly, the color met expectations, and the style was acceptable, would it be bought with regularity if buyers had nothing but a picture to go by? When it comes to cosmetics, suits, upholstered furniture or model homes, unbranded products have difficulty competing with their branded counterparts on the Web. Consumers need to actually touch, feel, try on, or see these products in person before they buy. Few would buy a house without actually stepping inside it, getting a “feel” for the neighborhood, and assessing the condition of the house and its surroundings. The words “size two, worsted wool suit” aren’t enough for a discerning clothes-shopper. Worsted wool has numerous consistencies and thicknesses, and a suit cut to fit some will not fit others. A size two made by one manufacturer may be classified as a size four or six by another.

“Look and feel” goods have a common characteristic—their quality is very difficult to assess from afar. Even something as mundane as bicycle pumps illustrates this concept. Professor Ely Dahan of MIT has conducted experiments with Web-savvy shoppers demonstrating that while the Web could capture many attributes of the product, critical aspects of some pumps were not conveyed. For example, the web was not able to adequately simulate the quality of an innovative pump. Consumers who received and used the actual pump noted its quality was significantly lower than they had expected based on the Web presentation. Consumers in this segment may be reticent to buy a product of unknown or less-than-fully-known quality. But once a consumer has selected a product, there are likely few substitutes. The characteristics of other competing products will likely differ on many dimensions, including quality, look, feel, and reliability. Clearly, this is not a book market. Rather, the “look and feel” segment is truly a differentiated market in all respects.

“Look and Feel” with Variable Quality. There is a final class of goods which can be characterized on this continuum as “look and feel goods with variable quality.” These are products where, even if the buyer has completed her search, knows the product, and recognizes the brand, she will need to see and perhaps touch and feel the actual *individual* product that will be delivered to her home or business. The distinguishing feature is that each and every *individual* product is different from every other. Original art, used cars, and fresh produce all fall into this category. Merely the names Sunkist orange, Golden Delicious apple, or Chiquita banana conveys some information. The phrase “Monet painting,” too, provides much information. However, consumers are often more discerning than this. They have preferences over the ripeness of the banana, the color of the orange, the hardness of the apple. They prefer to see, touch, and feel the actual piece of fruit to be delivered. In order to assess the beauty of a painting it must be viewed, not only over the Web, but also in the original, under different types of light. Indeed, particularly in the case of an expensive and original Monet, it is necessary to see the actual work of art in person.

Figure 1 (“The Dot-Com Retail Continuum”) illustrates these four points on a continuum of products: commodity, quasi-commodity, look and feel, and look and feel with variable quality.³ There are many product points between these four, but these serve as useful references for understanding the dynamics of e-commerce.

³ Note that these categories are analogous to the production processes outlined 15 years ago by Hayes and Wheelwright (1984): continuous flow, assembly line, job shop, and project. Another way of thinking about these

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Refinements. There are two important subtleties that need to be recognized about this framework. First, it is important to notice that as you move from left to right on the continuum, it is not only the intensity of the consumer “experience” that changes. (Experience goods are those that a customer must “experience” before buying.) Rather a number of other aspects to the

buying process change, such as the degree of asymmetric information between sellers and buyers, the need of the consumer to engage in search for optimal goods, and the degree to which seller reputation is important. All of these (and other) aspects of economic and management theory come together to in determining this market segmentation scheme.

Second, the purpose of the product and the need to engage in search might determine the segment to which it belongs. Take books, for example. A textbook assigned to students by a professor takes on a commodity characteristic. The student has a specified title, author, even edition, and then searches for the book at the lowest price. However, if the consumer is searching for a tour guide to London, there exist a host of different titles to choose from, making "tour books" a quasi-commodity. Rare books and one-of-a-kind used books most closely fit in the "look and feel with variable quality" segment, since each book has been exposed to different wear, which greatly affects its value. A company's choice of which "book market" to serve, and the importance the degree to which consumers must engage in search will determine which ecommerce segment in which the firm participates and, as the next section will show, which online strategies they should pursue.

Selecting Markets And Gaining Competitive Advantage

Given this understanding of e-commerce markets, what is the optimal strategy? This framework shows there is not a single optimal strategy, because the sources of competitive advantage differ across product segments. Entrepreneurs pursuing web opportunities should use the four-segment approach to decide how to invest their time and money; incumbent producers need to carefully consider whether and how to enter the e-commerce fray. Indeed, the market the company serves determines the preferred strategy.

Commodity Market Strategy. Industry structure in commodity markets is inherently unattractive. Companies are price takers who are held in check by customers who are willing and able to seek the lowest price on the same product from many competitors. Thus market power is difficult if not impossible to obtain; customer lock-in and customer loyalty are elusive. Rivalry between firms will make it unlikely for any firm to achieve "supernormal" profits far above the average player in the industry. Entry into commodity markets, while relatively easy, is not very attractive. Profits are whittled away by rivals, leaving little on the table for the entrepreneur. While entry is easy for the e-commerce start-up, market power cannot be exercised by individual firms, leaving little net income for shareholders. The only strategy available to managers in this market segment is to drive down costs in order to obtain profits.

Quasi-Commodity Market Strategy. The purchase of quasi-commodity products is a two-stage process. In the first stage, consumers conduct product search in a differentiated product market. In the second stage, consumers conduct a price search for the preferred product. Entry, in theory and in practice, is quite easy in this market. Any individual could list their home categories in a cumulative manner: commodities are differentiated in one attribute (price); quasi-commodities are differentiated in multiple attributes, one of which is price; look and feel products are differentiated in multiple attributes, including quality; look and feel with variable quality products are differentiated in multiple attributes, including quality, where there are differences within category. Each successive category requires more and more experience with the product.

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library on a website and become an on-line book vendor. In practice, despite the infancy of the Internet, last year, 31 U.S.-based online book vendors each carried more than 100,000 titles.⁴ (Contrast this to 80,000 titles in the average Barnes & Noble Superstore.) The strategic challenge for companies in these markets is to differentiate themselves on the first dimension (search) and to insulate themselves from price competition in the second dimension.

How is differentiation achieved in search? Amazon.com typifies a potentially successful strategy. A consumer may choose from a broad selection of over 3 million book titles or 300,000 video titles. In addition, Amazon has developed sophisticated internal search engines to make product search very easy and precise. They also offer additional search features, such as pointing the customer to related books of interest. Upon logging on to Amazon, a registered user

will even find books recommended by the search engine, based on the consumer's preferences and purchase history.

The problem for companies in these markets is that once a book -- or any quasi commodity product -- is selected using their powerful search engines, the consumer will purchase it from another e-commerce vendor at a lower price. This is not a big problem in traditional retailing. Consumers have to drive to three or four other bookstores in order to find the same book at a lower price at another bookstore. Search costs, however, are far lower on the Web; consumers are therefore more likely to search for the lowest price. This, in turn, leads to greater price competition between vendors, lowering profits.

To make matters worse, web-based intermediaries are making it even easier to search for the lowest price. Yahoo!, E-Compare, and other search engines will now search 10 or more web bookstores for your title, and return to you a list of vendors who have the book, and their prices. Even worse, the vendors themselves are entering the fray. At Books.com, after you choose a book, you can compare prices with other vendors. Books.com's own search machine will ping Amazon.com and Barnes and Noble.com and tell you their prices for the same book. If the competitors have lower prices, Books.com will lower their price to below those of their competitors.

Given what is potentially fierce price competition in the second stage of this quasicommodity market, how can companies carve out their own niche positions and retain market power? First movers will have some advantage in this market. Studies have shown that consumers return to their favorite web sites repeatedly, and thus first movers who are able to attract customers early, will likely have some advantage. In addition, mechanisms that encourage consumers to stay on a site, such as creating virtual communities so consumers can talk to each other, or site-specific customer loyalty and reward programs, will be quite important for attracting repeat purchasers and engendering repeat visits.

Customer loyalty programs will find favor, too. Although frequent flyer miles will soon become ubiquitous to web sites, they will not be sufficient to engender consumer loyalty. If Barnes and Noble and Varsity Books both offer United Airlines frequent flyer miles, frequent flyer programs are no longer a source of differentiation between vendors. Thus, only *sitespecific* loyalty and reward programs will attract repeat purchasers and create repeat visits. But even site-specific loyalty programs will only work well on those sites where there are frequent repeat purchases to be made. Groceries and toiletries are goods with these characteristics, purchased on a weekly or twice-weekly basis. In markets where purchases might be more occasional (such as books), on-line department stores will likely have an advantage. Although a Gomez.com survey from Spring 1999.

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single consumer might not purchase books, hardware, or videos on a weekly or twice-weekly basis, combined they may result in significant volume.

Finally, branding will be an important part of any quasi-commodity strategy. Product brands will not be a point of differentiation for the e-commerce vendor, but e-commerce brands will be key. Strong e-commerce brands can signal quality in the reliability of delivery, security of personal information, dependability of the return policy, and customer service in general. Indeed, firms that wish to make above-industry-average margins in this business will have to invest in building e-commerce brands.

Amazon.com is a case in point. As a first-mover to the industry, Amazon invested heavily in broad book choice, powerful search engines, and strong branding. Amazon is now investing in other quasi-commodity businesses, such as over-the-counter drugs, toys, and electronics, to encourage consumers to stay on their website. Moreover, Amazon's additional planned investments in website "stickiness", such as affinity groups and chat rooms, fosters an additional strategic advantage: they learn an immense amount of information about customer preferences and web search habits, which, in turn, allows them to further tailor the website and their product offerings.

Conversely, it is not surprising that large, established companies such as Merrill Lynch and Toys R Us have had difficulty leveraging their traditional retail brands in the e-commerce markets. These companies have been second-movers in a market where first-movers have the advantage. Moreover, their corporate cultures and cost structures are built around traditional

retailing, rather than faceless interaction. Finally, many incumbents have gone to great pains to avoid cannibalizing their traditional retailing business. However, if traditional incumbents do not establish effective e-commerce ventures to compete with their own core businesses, others will. Fidelity and Charles Schwab (incumbents unafraid to cannibalize their core businesses, and early movers into the e-commerce market), and eToys (first-mover, new entrant) will exploit their competencies in low cost strategies and electronic know-how to force unbridled competition between e-commerce and traditional retailing in these segments.

The question remains, however, whether any profits Amazon, eToys, or any quasicommodity e-commerce venture earns, will be dissipated by the fierce, commodity-like competition that occurs in the second stage of competition in these markets. The framework suggests earnings will be low at best, and frequently completely elusive.

Look-and-Feel Market Strategy. The third product point on the continuum, look and feel goods, poses a novel question for e-commerce vendors: how can e-commerce retailers provide consumers with look and feel over the web? While pictures and animation can certainly help, alone they will be insufficient. Alternative technologies such as on-line customization tools, will also assist, but unless the consumer feels the swatch of fabric for the suit, the decision to purchase is difficult. In the consumer's quest for information about the quality and characteristics of the product, strong product brands (as opposed to e-commerce brands) will become the kingpin. Incumbent and established brands like Hugo Boss, Evan Picone, and Victoria's Secret, all provide a substantial amount of information about the product to the consumer. Because of past experience with these products, consumers are able to understand the difference between LL Bean duck boots and other duck boots. Brands such as Ann Taylor convey information about the expected product quality, material, and fit. Indeed, this suggests that well-branded incumbents, precisely because of their ability to differentiate their products, will be able to wield substantial market power, and therefore obtain large profits in this segment of the market.

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Given the power of product brands in the look and feel market, it is highly unlikely that we will see entrepreneurs successfully inundating this space in quest of profits. More likely, we will see the rise of two forms of distribution, led by traditional incumbents.

The first is a wholly-owned vertical distribution system. An example of a company that operates such a system is home furnishings retailer Pottery Barn which sells its own Pottery Barn furniture exclusively. Such markets will be difficult for e-commerce vendors to penetrate without a strong brand or entry position. The e-commerce vendor must be vertically integrated, and excel at both product creation and product distribution. Building product brands from scratch is still time-consuming and costly, two unattractive features of a strategy when competing on Internet time. Once created, the product brand will then have to compete with products that already have established reputations and considerable brand equity, recognition, and consumer admiration.

However, should an e-commerce company be able to overcome these high hurdles, the market has a number of attractive features, including oligopolistic competition, high entry barriers, and customer loyalty, which are likely to promote profits in the long-term. Successful companies in these product classes can retain substantial market power, as price competition is mitigated through substantial product differentiation.

Alternatively, e-commerce vendors like Bluefly.com, a clothing "mall" on the web, will arise that sell these branded look-and-feel products on a nonexclusive, widespread basis. Vendors of Broyhill chairs, Evan Picone suits, and Revlon cosmetics will not need to make investments in the product brands to signal quality. The product manufacturers will do this. Rather, they will have to make investments in merchandising, inventory management, and distribution. Note, however, that these types of e-commerce ventures begin to look increasingly like the quasi-commodity product category. That is, once the search for a chair is complete, price competition can ensue between web vendors. This suggests that profits will accrue to the branded product manufacturers and profits of e-commerce vendors will soon plummet.

Though the outlook is grim for most start-up or pure-play dot-com companies in this market segment, adopting certain policies can help them compete. For example, liberal warranties and return policies will help to attract wavering consumers. Adoption of industry

standards can help to allay fears of the wary customer. For example, it's easier to sell a computer that runs the Windows operating system than one using an obscure flavor of Unix. Unfortunately such piecemeal approaches that involve warranties and standards are likely to be quickly copied by competitors.

Other solutions may also be available. Vendors can pursue a strategy of rapid or proprietary technological developments to support look and feel information over the web. Alternatively, vendors can attempt to minimize price competition by seeking products that have limited distribution channels. The effective strategic alternatives for the pure e-commerce vendor in this segment of the market are not attractive. Either participate in the vertical structure of the market and make the investments in brands, where entry is difficult, or participate in the distribution of branded products, where the specter of price competition raises its head. Unlike the commodity or quasi-commodity markets, many traditional, incumbent retailers in the look-and-feel segments are likely to survive the transition to an Internet-based economy in large numbers (though some will fail, too). Some will pursue the strong look and feel strategy, and seek to differentiate their products as “must be worn” and their stores with “outstanding personal service.” These successful “pure play” traditional retailers, relying on the brick and mortar, will stress the distinctiveness of the clothes and purchasing experience.

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Other retailers will rely on showrooms. Rather than carry full inventories of all colors and sizes of clothing, retailers will now be able to offer customers samples of clothing sizes and colors—a rack with one of each. Customers will be able to try on clothing, inspect quality and color, and then turn to Web terminals in that very store to order clothes which will be delivered to their home the next day. These hybrid forms of retailing will offer a mechanism for new ecommerce ventures to move into the more traditional retailing channels.

Of course, some consumers may not be able to wait that long, and this opens up opportunities for vendors in these categories, and indeed all categories of products, to tailor pricing to time-based preferences. For customers who cannot wait for delivery of their products, a price premium will be paid. More concretely, a traditional retail vendor can allow the consumer to take it with her for \$50, or permit ordering over the Web and delivery tomorrow for \$40. It is well known that firms make huge margins on their catalog sales because they do not have to carry inventory, buy floor space, or pay sales associates. Catalog margins are as much as 100% higher than in the retail stores. In offering this two-tiered pricing option, time preferences can be incorporated into the pricing system to the advantage of both consumers and vendors. A web based retailing system can co-exist with the traditional system of merchandising.

Eddie Bauer has implemented somewhat similar systems, integrating its stores and catalogs. An in-store customer who does not find the precise item she wants can order through the catalog using dedicated phones in the stores. Goods are delivered to her home address within a week without a shipping charge. While a start in the right direction, the Eddie Bauer model can be refined to incorporate the technology of the web, the logistical prowess of a delivery system, and the sophisticated scheme of preference-based pricing. Indeed, companies with successful catalogues will likely find the transition to the web easier than those without.

Look and Feel with Variable Quality. In this category, quality is not only difficult to communicate, but it varies by product, creating large obstacles for e-commerce. Each individual product needs to be inspected by the consumer. Surely, the ability to post product descriptions on the web mitigates some of this problem, but it falls far short. One cannot easily sell a used car, three thousand different apples, or original artwork on the Web. Indeed, many firms that have ventured into these segments have found the going difficult. Other firms have recognized this fundamental problem and have shifted to an intermediary function. Usedcars.com informs you of all the used cars available in your area, and then tells you how to contact the person who owns the used car. They do not try to sell the used car, fully recognizing the problems of purchasing a used car directly over the web. Note that the problems with participating in this segment of the market derive not from competition or other economic factors, but external and technological factors outside managerial control. In the near future, survival and profitability in this segment will be difficult. However, this may not last forever.

Research and innovation currently underway at top universities may enable this segment of the market to grow. Indeed, technology is being developed to allow web browsers to more

finely examine texture and minute details. In addition, software and hardware advancements will soon allow consumers to view the actual products they are selecting in real time, and then take quick delivery. While developments like these will help make this product segment accessible to e-commerce vendors, some product markets, like used cars and homes, will always be difficult to penetrate. In these segments, technological barriers will prevail for years, and intermediaries will need to arise before such problems can be solved.

Until this day arrives, what can managers do? In this segment, and indeed, in the “look and feel” segment more generally, managers must exploit two instruments under their control:

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price and reputation. (See Figure 2, chart, “Used Cars, No; Fresh Fruit, Yes”). Companies like Peapod, Streamline, and Home Runs have shown that consumers are willing to purchase items such as produce and vegetables over the web. These companies demonstrate that some look and feel products with variable quality might succeed on the Web if they are inexpensive repeat purchases. Repeat purchases allow the e-commerce vendor to build a reputation for quality by repeated provision of the product to a given consumer. Inexpensive products allow the consumer to mitigate risk. If the consumer does not perceive the products to be high quality, the loss is relatively low and they can take their future business elsewhere. Thus, inexpensive prices give consumers the incentive to experiment, and give the e-commerce vendor the opportunity to build a reputation. A good reputation coupled with low prices will allow some firms to survive in this segment.

Incumbents Vs. New Entrants

Given this framework, and the strategies companies pursue, can we explain the success and failure of the traditional brick-and-mortar incumbents in various market segments? Here examples may be instructive. Victoria's Secret and Saturn Inc. have found significant sales on the Web. Borders Books and Toys R Us, both late movers, have so far failed to succeed. These companies help to illustrate a more general pattern and application of market segmentation on the continuum: traditional incumbents have substantial advantage in products that tend toward the look-and-feel side of the spectrum, and encounter difficulty in products that tend toward the commodity end of the continuum. That is not to say that traditional incumbents will not succeed in the commodity end of the spectrum, but that they will likely find the playing field more even in that part of the product space, as their brands and brick-and-mortar stores provide little advantage.

Consider again the example of individual on-line trading. Charles Schwab and Fidelity Investments have found significant success with their on-line trading services. Merrill Lynch has been slow to launch, and its success is uncertain. Here is a glaring exception to the pattern suggested above. Why might this be? First, Charles Schwab was a very early mover to the online trading arena. In addition to the first mover advantage, they built in switching costs.

Schwab charges customers substantial financial and transaction fees to close an account before it can be moved to another broker. Second, Charles Schwab has long-held competencies in serving a customer base from a distance. Their telephone trading system was in place long before the Internet existed, and their information and data systems made it relatively easy to make the transition to the Web. Their corporate culture has supported their “serving a customer at a distance” strategy. These in-place competencies and assets transferred efficiently and effectively to the Web, and gave Schwab an advantage over its counterparts.

As the discount-brokerage example illustrates, incumbents in the commodity and quasicommodity segments with first-mover advantage and strong histories in information technology and serving a customer at a distance can become exceptions to this general rule and reap rewards in these fiercely competitive segments.

Sustaining A Competitive Advantage

So what of e-commerce? What of these Internet valuations? What of entrepreneurial opportunities to the legions of engineers, MBAs, and venture capitalists venturing into the ecommerce market? The first thing to recognize is that the barriers to entry grow higher as we move across the continuum from commodity to look and feel with variable quality. However,

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precisely because entry will be easy and competition fierce, those companies which enter the commodity and quasi-commodity types of businesses will find small, if any, profits.

Nevertheless, companies that are able to “crack the code”, and enter successfully into the look and feel and look and feel with variable quality segments, will find substantial profits. It is precisely in these latter segments where bricks will combine with clicks to generate profits. (See Figure 3, “Entry Barriers and Profits in the Dot-Com Continuum”)

Companies should not, however, be content with industry average profits, in whichever segment they choose to compete. They must strive for higher than industry profits. Figure 4 (See chart, “How to Manage E-Commerce for Competitive Advantage”) summarizes how the sources of competitive advantage will differ across segments. Commodity product sellers must strive for low cost positions. Quasi-commodity sellers must develop strategies to insulate their products from price competition, through customer loyalty programs and website stickiness. Look and feel sellers must meld their traditional assets with the electronic marketplace to distinguish their products and exploit their current product brands. Look and feel with variable quality sellers must either think small and inexpensive to develop a reputation that allows them to grow, or invest in both front end and back end technologies to facilitate customer purchases. Finally, branding strategy will be important. In the commodity and quasi-commodity product segments, the actual e-commerce vendor brand is important to the extent that it signals reliability and customer service. In the look and feel markets, product brands will dominate as a source of competitive advantage. And both e-commerce brands and product brands are important sources of competitive advantage in the “look and feel with variable quality” segments. An e-commerce start-up’s brand strategy will be substantially determined by the markets it serves. Moreover, while even branded retailers in commodity and quasi-commodity products face difficult times ahead, all incumbent brands are not dead. Indeed, product brands will persist, and some retail outlet brands, especially those that cover the look and feel segment, will continue to profit. The opportunity for new e-commerce brands has arisen, however, in the commodity and quasi-commodity segments. Hence, we see the rise of Amazon, Buy.com, and Travelocity.

This brings us back to the first question: Are these Internet company market valuations justified? If one believes in efficient capital markets, then one must assume that the price of each Internet venture incorporates all information, both past and in expectation, and thus these companies are fairly priced. If capital markets are not perfectly efficient, and we incorporate the framework proposed, many of these valuations will be called into question. The majority of entries into the e-commerce market have been in commodity and quasi-commodity markets. The framework suggests that only a small fraction of these companies will be very successful, and generate the supernormal profits their valuations suggest. Those companies, however, which have invested in capabilities to exploit the sources of competitive advantage in their particular product segment, will have a much higher probability of justifying their valuations in the longterm.

11

SIDEBAR:

HEAD: Do On-line Auctions Have a Future?

SUBHEAD: Business models that require buyers to trust sellers may have big problems on-line. Ebay, Amazon, and Priceline have all ventured into the on-line auction market. Will they succeed? Will these markets persist? For auctions in new and used products, the framework presented here can help predict the probability of long-term success of auctions over various types of product segments.

In the case of new products, auctions will succeed to the same extent that new ventures will succeed. That is, on-line auctions will succeed in the medium term in the “commodities” such as paper clips or barrels of oil, and “quasi-commodity” segments such as books and CDs, where it is easy to shop for the lowest price. However, on-line auctions will have much more difficulty selling suits or homes, where the “look and feel” is important in shopping, or in the “look and feel with variable quality” segment, where one-of-a-kind items like original artwork or fresh fruit are sold. Companies selling used products on the Web will have an even harder time being successful, because the difficulty of assessing quality is even greater.

Priceline.com offers the consumer hotel rooms and airline flights on a take-it-or-leave-it basis. The pure sensibility of this format is clear. We need to know little more than the airline and time of departure to obtain all relevant information about our flight. Quality is easy to signal. Likewise, auctions for new books are likely to be successful. The title conveys all

information necessary.

On the other hand, a used camera, used piano, or used car requires much closer inspection (even though a new car camera or new car may not). As in any used product market, the seller has more information about the potential flaws or shortcomings in the product than the purchaser. However, on the web, the problem becomes even more acute, as an assessment is required at a far distance. The possibility for opportunism by the vendors is enormous and the anonymity of the parties in the transaction creates numerous potential contractual hazards. This problem becomes even more acute if the products are expensive and the identity of the seller changes from product to product, thus making reputation-creation elusive.

To counter these problems, on-line auctions have recently implemented a “comment” system in which buyers rate sellers. Unfortunately, such ratings fail to address the real concerns of buyers. Since the potential buyer has really no idea who rated the seller, they have no way of knowing how critical or kind that person was in the rating. The seller, too, can sell to her friends for the first ten transactions to “build” reputation that doesn’t really exist. (Note, this can occur with book-ratings and reviews on Amazon.com.) Without a measurement and verification mechanism, these ratings are merely what economists call “cheap talk”, a message that may be truthful or not, and whose accuracy is almost impossible to judge.

Solutions to these “cheap talk” problems exist. Impartial consignment or escrow agents can alleviate the risk and permit an inspection period for the buyer. Sellers can offer guarantees and warranties on products in the suspect categories. A strong reputation can also solve these problems. But in the context of the web, these auction intermediaries and solutions have been slow in coming. Without these types of answers, auction market volumes will suffer in the quasi-commodity and look-and-feel segments of the markets.

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Though the economics of these auctions suggest they will encounter problems in some segments, non-economic forces may actually dominate more clear-headed, strategic thinking. Namely, the utility that buyers obtain from auctions may not be from the goods purchased, but from the satisfaction of the “game” of the auction (much like the “game” of Las Vegas) and “winning” the auction. To this extent, on-line auctioneers' strategies should be oriented toward exploiting these behavioral aspects to their business.

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Commodity

Products

(Oil, Paper Clips)

Quasi-Commodity

Products

(Books, CDs, Videos)

“Look and Feel”

Goods

(Suits, Homes)

Quality is easy to judge on the Web

“Look and Feel”

Goods with

Variable Quality

(Produce, Art)

Quality is difficult to judge on the Web

The ability to judge the quality of a product is the biggest differentiator between product categories on the web.

Used Cars, No; Fresh Fruit, Yes

Multiple Purchases

From Same Seller

Used Car

Used

Records Produce

Collectible

Art

Potential

for On-

Line

Success

The best opportunity for selling one-of-a-kind products online are ventures that can draw repeat business selling inexpensive products.

Expensive

Inexpensive

One Time Purchase From

Same Seller

Entry Barriers and Profits in the Dot Com

Continuum

Retail Product Continuum

Commodity

Products

Quasi-Commodity

Products

“Look and Feel”

Goods

“Look and Feel”

Goods with

Variable Quality

(not including repeat purchases)

Probability of

Success and Profits

Probability of

Competitor Entry

Probability of
Entry and
Profits
High
Low

Caption: Commodity markets are easy to enter, but profit margins are low. “Look and Feel markets are difficult to enter, but confer high margins.

Low Cost Strategy

- Take advantage of economies of scale
- Utilize low cost production technology
- Achieve efficient distribution and low overhead

First Stage:

Differentiation

- Use information technology to differentiate web service.
- Develop search engines that match consumer preferences to products quickly and precisely
- Employ database management tools that allow real-time datamining
- Make website “sticky;” i.e., include features that encourage web shoppers to stay on the site.
- Offer one-stop shopping
- Seek first mover advantage.
- E-commerce branding

Second Stage: Low

Cost and

Differentiation

Strategy

- Take advantage of economies of scale
- Seek preferential treatment with wholesaler suppliers
- Insure delivery of product is reliable and timely.
- Offer additional customer services such as chat rooms, affinity programs, and other web-site stickiness technologies
- Offer site-specific customer loyalty programs.

Vertically Integrated

Firms: Full

Differentiation

Strategy

- Establish equivalent of store brands.
- Incorporate latest technologies to convey “look and feel” to consumers (e.g. virtual model and sizing technologies)
- Excel at on-line customer service with both interactive and phone customer support
- Offer industry-leading warranties and return policies

Customization

Strategy

- Follow and utilize advancements in webcam technology
- Combine web search technologies with delivery logistics to deliver precise items viewed on Web
- Develop build-to-order technical capabilities.

Additional

issues that can help some of these firms

- Offer inexpensive products that lend themselves to repeat purchasing.
- Build reputation for quality and reliability.

Commodity

(Oil, paper clips)

Quasi-Commodity

(Books, CDs, videos)

Look and Feel

(Suits, homes)

Look and Feel with

Variable Quality

(Produce, art)

How to Manage E-Commerce for Competitive Advantage

Additional

differentiation is

required for

hybrid firms:

- Employ creative pricing strategies (i.e. timepreference based pricing)
- Provide showrooms to display merchandise

- Develop bifurcated backend logistics and delivery systems to insure on-time delivery in the showrooms and to the home
- Strategies and tactics for maximizing your dot.com opportunity.