### CSC

#### **Creating a Strong Foundation for e-Business Growth Strategies:**

Challenging e-Business Myths with e-Business Reality

# perspectives

#### [perspectives]

helps business and information

systems executives address

critical management and

technology issues.

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#### About the Author



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is a CSC partner with 20 years of experience in the financial services industry, including strategic-level management and ownership experience in banking, broker/dealers and asset management teams. The Internet is an infrastructure – not a technology – that can be employed by any firm in the conduct of business. As an infrastructure, the Internet has matured considerably over the past several years. However, many basic assumptions formulated in the first wave of the Internet Age have not matured at the same pace. As a result, a powerful new wave of business innovation is occurring – innovation that is challenging the initial revenue premises and valuation of dot-com first movers.

This Perspectives examines current e-commerce assumptions on the importance of product price, the role of distribution, and the advantage of being a first mover in developing a successful business in a maturing Internet Age. It then juxtaposes these assumptions against researched facts, draws conclusions about what is fact versus myth, and presents guidelines for developing successful strategies based on fact.

#### Tempering Enthusiasm with Reality

The Internet has had a powerful impact on the economic fabric of the United States. Entrepreneurs who led the early adoption charge became millionaires and billionaires in relatively little time. New phraseology developed – and has now become commonplace – to describe components of the e-commerce phenomena. Our lexicon has transformed companies that were once "blue chips" into "old-economy" firms and placed them in a battle for their economic lives with the "new-economy""dot-coms." Speculation, some of it irrationally exuberant, abounds around the role that the Internet will play in shaping – and reshaping – companies, industries and the economy in the future. But the tide is turning. The 1980s and 1990s were a time for companies to become lean and mean; today they must become fighting machines – with the earnings to prove it. Brick-and-mortar companies are moving aggressively to harness the power of the Web. Motivated by desires and pressures to increase earnings, both domestically and internationally, they are forming alliances or striking out alone – generating new business and revenue models. Even the stock market has moments when the valuations of pure-play Internet firms are questioned.

Despite recent stock market adjustments, enthusiasm for anything "e" remains strong. Futurists forecast the movement of trillions of dollars of business from current value chains and distribution channels to electronic markets, brokers, exchanges and intermediaries. Channel conflict is broadly defined but rarely explained within the context of a competing superior value proposition – other than the base motivation of lower product prices. Assertions that existing hierarchical distribution channels will be replaced with flatter systems ("hyperarchies"<sup>1</sup>), allowing communication through all parties in the channel, have been foundational to the growth of net markets and exchanges.

In short, enthusiasm for e-business is built on and sustained by a number of critical assumptions. The extent to which these assumptions are valid can determine the success or failure of a new e-business initiative. It is essential, therefore, that companies build their e-business growth strategies on as few assumptions – and as many facts – as possible.

#### The Internet and Marketing Mix

For any given product cost structure, top-line earnings growth is about selling more products or getting a higher price for the same number of products. Either way, earnings growth is a marketing mix issue – marketing being "the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives."<sup>2</sup> The *marketing mix* of a company comprises four elements:

• *Product* is anything that satisfies a need or a want. Products can be tangible (like manufactured items) or intangible (like services) and contain a number of attributes, from color, shape, feel and smell to image, name and brand.

- *Price* is more than the cost of a particular good or service; it reflects something about the company, the product and the brand. Pricing strategies must be consistent with the message the company wants to convey about its product and brand and serve as the vehicle for generating financial growth and success.
- Promotion includes sales plans and sales management programs for a direct sales force as well as sales support activities from advertising to newspaper inserts and give-away items.
- Distribution (also called "channels of distribution" or "place") concerns how a product is made available to consumers."<sup>3</sup> Broadly speaking, distribution also includes logistics and has been traditionally delineated into two distinct approaches: direct distribution and indirect distribution.<sup>4</sup> Businesses that facilitate indirect distribution are often called "middlemen," but within any given industry they can also be called agents, brokers, independent representatives, distributors, jobbers or operators, for example. Often overlooked is the fact that the retailer is a distributor – the last step in the value chain reach from producer to consumer – and the physical store is the distribution channel of the retailer's marketing mix.

The scope of a distributor's business focus is usually expressed in terms of a product and market (for example, hospital supply distributor, restaurant supply distributor, chemical distributor, grocery store or pet shop). In the past (Figure 1), the economic value of an indirect distribution channel was clearly understood as its ability to bring multiple buyers and sellers together at a single neutral point to facilitate a transaction. (This may sound and look like today's "neutral net market" because the business concepts, processes and organizational structures are very similar.)

<sup>&</sup>lt;sup>1</sup> Evans, Phillip B. and Wurster, Thomas S. "Strategy and the New Economics of Information." *Harvard Business Review*, (September-October 1997), 75.

<sup>&</sup>lt;sup>2</sup> Bonoma, Thomas V. and Kosnik, Thomas J. (companion note). Boston: Harvard Business School Publishing, July 13, 1989, 2.

<sup>&</sup>lt;sup>3</sup> Ibid, 10.

<sup>&</sup>lt;sup>4</sup> Etzel, M., Walker, B., and Stanton, W. *Marketing*, 11th Edition. Boston: Irwin/McGraw-Hill, 1997.

#### Figure 1.

#### DISTRIBUTORS REDUCE TRANSACTION COSTS



"Traditionally, the primary function of a distributor is to play a cost-transfer role in the channel. That is, because of their economies of scope, distributors can often perform certain functions for suppliers and user customers more economically than they can perform these functions themselves."<sup>5</sup> Figure 2 identifies a number of critical functions that distributors (wholesale or retail) provide simultaneously for multiple buyers and sellers, illustrating that "you can eliminate middlemen, but you cannot eliminate essential distribution activities ... they perform."<sup>6</sup>

Distribution channel structure options differ depending on whether the product is a service sector product or a manufacturing sector product. Even within the same sectors, not all products require the same channel structure for optimal distribution.

Figures 3 and 4 show the conceptual distribution channel options for manufactured products and service products, respectively. Service sector products are distributed in one of two ways: directly or through an agent. Manufactured products can be sold to the end user directly, through agents to wholesalers to OEM/operators, or with any combination of these middlemen. Broad classifications require different levels of distribution intensity:

- Convenience goods (for example shampoo and toothpaste) are purchased routinely, require little evaluation, and therefore require intensive distribution.
- Shopping goods (such as televisions and coats) are purchased infrequently and are often carefully evaluated and compared to various makers and brands. These goods require selective distribution.
- Specialty goods (for example new suits and sports cars) are infrequently purchased and are generally associated with strong brand preferences. Specialty goods buyers do not consider location an important purchasing criterion; therefore these products are usually sold through exclusive distribution outlets.<sup>7</sup>

- <sup>6</sup> Etzel, M. et al., op. cit., 343.
- <sup>7</sup> Dolan, Robert J. "Going to Market" (companion note). Boston: Harvard Business School Publishing, February 23, 2000, 8.

<sup>&</sup>lt;sup>5</sup> Cespedes, Frank V. "Channel Management" (companion note). Boston: Harvard Business School Publishing, October 26, 1989, 4.

#### Figure 2.

#### DISTRIBUTOR FUNCTIONS

Performed for Sellers	Performed for Buyers
Provides market information	Anticipates wants and needs
Interprets customer's wants	Subdivides large quantities of product
Promotes seller's products	Stores and inventories products
Creates assortments	Transports purchases to buyer's site
Negotiates prices and terms with buyer	Negotiates prices and terms with seller
Provides financing for inventories	Provides financing for purchases
Takes title to product	Guarantees availability of product
Stores product	Creates assortments from multiple vendors
Shares risks	Shares risks

Positioning and branding a product and employing a new distribution channel and level of distribution intensity can revolutionize an industry. Dell Computer's direct distribution process is rightly hailed as a distribution masterpiece. The mark of genius in the Dell approach was not that Dell employed a technology-supported infrastructure (the telephone) to inform, interact and transact with customers. Nor was it that the company used rich media (color brochures) to entice clients toward a particular product. Rather, Dell's genius was in recognizing that building computers to order could transform a shopping good into a specialty good with Dell as the exclusive distributor. By eliminating the cost structure of the existing distribution channel, Dell also gained an impressive cost advantage. Other PC manufacturers quickly realized the points of channel conflict as they moved to the direct model.8

Dell's challenge of the predominant distribution channel as an element of its future growth was not unique. In the late 1970s, IBM realized it needed to move from reliance on its legendary direct sales force into other channels. Apple, which started by selling only through independent retailers, created a direct sales force for corporate accounts. Both companies have since moved to include a Dell-style direct-to-the-customer sales capability. These hybrid marketing systems employ direct and indirect channels supported by various infrastructures and technologies to accomplish specific value-added tasks.<sup>9</sup>

Like the telephone system before it, the Web is an infrastructure supported by technologies. Marketers may choose to include it in their strategic marketing mix to support the distribution of goods and services. The way in which this infrastructure is employed will significantly impact the probable success of the business initiative it is intended to enhance as long as it adds value over the alternatives. As a disruptive infrastructure (discussed in the next section), the Internet is certain to change the competitive landscape of a number of industries. It will change how certain functions are performed, but it is less likely to change the functions that must be performed. Certain companies may be disintermediated to the point of extinction as a result of their inability to adapt to and embrace the opportunities that this new infrastructure offers.

<sup>&</sup>lt;sup>8</sup> Ibid.

<sup>&</sup>lt;sup>9</sup> Moriarty, Rowland T. and Moran, Ursula. "Managing Hybrid Marketing Systems." *Harvard Business Review* (November-December 1990), 2, 4-6.



#### Examining Assumptions about the Internet

Content delivery, ubiquity and ease of use are attributes of the Web that set it apart from other infrastructures (such as the telephone system) to such an extent that it can be characterized as a disruptive infrastructure. Although disruptive technologies can arise over relatively short periods of time<sup>10</sup>, disruptive infrastructures such as the Internet are comparatively rare, so it is not surprising that it generates considerable interest as its capabilities mature.

Companies must develop a realistic perspective of what the Internet can and cannot do to help them achieve their financial growth, marketing, organizational or shareholder-value objectives. A number of assumptions, such as those summarized in Figure 5, underlie the development and deployment of e-business growth, marketing, sales and distribution strategies. These assumptions can impact organizational and business processes as well as business model redesign.

Entrepreneurs have embraced these assumptions with an uncommon vigor, and many have catapulted into financial independence as a result. They have developed business models that reflect this assumed wisdom in their governance, organizational structure and approach to the market, and they are being imitated by newer entrants. However, empirical evidence suggests that many of these assumptions are not substantiated – calling into question the durability of companies and business models that rely too heavily on these precepts.

<sup>10</sup> Christensen, Clayton M. *The Innovator's Dilemma*. Boston: Harvard Business Review Press, 1997.

## <u>csç perspectives</u>

Fig	ure	5
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Assumption	Implications
Market Efficiency and Product Pricing: Internet markets are more efficient than current alternatives.	<ul> <li>Buyers can and will move among low-cost product sellers.</li> </ul>
	<ul> <li>Prices of goods sold over the Internet will be lower than traditional channels and lower price means more business conducted over the Web.</li> </ul>
The "First-Mover" Advantage: Being first to market greatly enhances the probability of success.	Early adopters can win if:
	<ul> <li>They quickly and aggressively employ the technology needed to transact over the Web and not merely inform.</li> </ul>
	<ul> <li>Enough eyeballs are captured early, leaving imitators with reduced market share opportunities.</li> </ul>
Disintermediation of Traditional Firms: Pricing assumptions combined with the first-mover advantage give a competitive edge to new entrants.	<ul> <li>Traditional, hierarchical vendor and supplier relationships will be replaced by a cost-free search.</li> </ul>
	<ul> <li>Reduced customer loyalty to a particular distribution channel, brand and manufacturer is the advantage for emerging dot-coms or net markets.</li> </ul>

The following sections examine these assumptions in greater detail.

#### Market Efficiency and Product Pricing

#### Assumption:

The Internet is more efficient because it reduces search costs and gives buyers and sellers access to near-perfect information. Since buyers are sensitive to price differences, especially for identical products, they will shop to find the best prices. Since Web technology allows sellers to change prices frequently and in small increments at no cost, as well as to compare their current price structure to competitors, they will provide the best prices. Therefore, Web prices will be lower and the dispersion of prices on the Web smaller than what is found in a traditional distribution channel.

#### Discussion:

The new economy is often considered to be a buyerdriven economy in which buyers are assumed to be motivated by price. Therefore, they are expected to buy from the firm that can deliver the required product at the cheapest price. The Web will enable this method of exchange because this new infrastructure provides a more efficient environment in which to conduct business. This efficiency has four dimensions: price levels, menu costs, price elasticity and price dispersion.<sup>11</sup>

In an efficient market, forces will push product prices to the point where they are the same as the marginal cost of producing the product. Furthermore, in markets where consumer search costs are high, product prices regularly exceed marginal cost pricing. Therefore, it follows that to the extent that an electronic market (Internet or otherwise)

<sup>&</sup>lt;sup>11</sup> Smith, M.D., Bailey, J., Brynjolfsson, E. "Understanding Digital Markets: Review and Assessment." Working Paper, MIT, September 29, 1999.

reduces search costs to virtually nothing, the prices of products sold over the Web should be lower than through traditional channels. On this point, however, the evidence is mixed:

- Electronic auction markets for used cars have been shown to increase prices – not lower prices – relative to traditional auction markets, and these pricing differences have increased over time.<sup>12</sup>
- Two studies on the retail market for books and CDs are split on the issue. One shows higher online prices, while the other shows online prices to average 15 percent less for books and 16 percent less for CDs than retail outlets.<sup>13</sup> When total product acquisition costs (shipping, handling and sales taxes) are included, the differences between electronic retailer prices and traditional retailer prices become negligible.<sup>14</sup>

This is particularly interesting in light of menu cost – the cost of physically changing prices in a retail environment. Due to low menu costs online, retailers are likely to change prices up to 100 times more often than traditional retail outlets.<sup>15</sup> Price dispersion, which measures the difference between the highest and lowest prices for the same products within a distribution channel, is assumed to be small in efficient markets with low menu costs. Yet price dispersion on the Web is significant and statistically as high as that in traditional retail channels.

Also critical to the success of most net markets and many transaction-oriented Internet ventures is the assumption that buyers are very price elastic. This means that buyers will move to purchase products from the lowest-cost provider if they are given this opportunity. Internet buyers are a self-selected universe of individuals that one would expect to be the most price elastic of all potential buyers.

However, studies of consumer goods markets, principally food and wine, showed that:

- Online grocery shoppers are less sensitive to price changes than in-store shoppers.
- Online buyers, as a general rule, are highly sensitive to local tax rates.

• In simulated markets for wine buyers, price is secondary when better product information is provided.<sup>16</sup>

#### Reality:

- Menu costs are much lower on the Web, and sellers change Web prices as much as 100 times more frequently than traditional distribution outlets. In this sense, the Web is a much more efficient infrastructure. Yet buyers choose not to take advantage of significant price differences that continue to exist among distributors, retailers and manufacturers.
- For absolutely identical products (such as books and CDs), price dispersion on the Web is at least as high as traditional retail outlets. Web buyers do shop among Web sites looking for the lowest possible price.
- For identical product offering sets (such as groceries from online stores), Web shoppers are less pricesensitive than traditional shoppers. Despite lower menu costs and high price dispersion, price does not play a primary role in a buyer's decision to purchase products over the Web, casting doubt on the notion that the new economy is a buyerdriven economy.
- The difference in prices of products sold over the Web versus prices sold through traditional channels is mixed. Buyers look at total acquisition costs with an eye to eliminating tax-related costs. When reviewing absolutely identical products and the total cost of acquisition, including taxes, shipping, handling and other miscellaneous charges, product price advantages are quickly overshadowed.

<sup>16</sup> Ibid., 4-5.

## <u>csc</u> perspectives

<sup>12</sup> Smith, et al., op. cit., 3.

<sup>&</sup>lt;sup>13</sup> Brynjolfsson, Erick and Smith, Michael D. "Frictionless Commerce? A Comparison of Internet and Conventional Retailers." MIT Sloan School of Management Working Paper, 12.

<sup>&</sup>lt;sup>14</sup> Smith et al., op. cit., 3-4.

<sup>&</sup>lt;sup>15</sup> Ibid., 5.

#### Implications:

Web shoppers are not primarily motivated by price. Therefore, companies that build business and revenue models that depend on a customer base motivated by price and the low search costs associated with the Web are not likely to succeed.

#### The First-Mover Advantage

#### Assumption:

The Internet is a disruptive infrastructure that creates unique opportunities for creating new businesses and methods of doing business. By quickly and aggressively employing innovative technology to support transactions and other activities over the Web – especially given the assumed buyer preference for low prices and willingness to search for these prices – early entrants will capture eyeballs and market share that cannot be overcome by competitors. Marketing alliances can be a means for getting to market quickly to capture the firstmover advantage.

#### Discussion:

As a disruptive infrastructure, the Internet has given rise to firms, particularly in the distribution arena, that seek to replace existing firms with product and service offerings no longer relevant to the market they have traditionally served. This process is called "disintermediation."

Conventional wisdom holds that disintermediation is likely to occur in industries where a first-mover dot-com company displaces an existing supply chain with a superior, Web-based distribution capability. Traditional assumptions hold that the first-mover advantage combined with the presumed hyperarchical preference of buyers and high price elasticity can deliver the knockout punch to an old-economy competitor. Clearly, harnessing the power of a first-mover advantage is a major concern to established firms as well as new entrants. However, several questions must be asked:

- Is there truly an advantage to being a first mover?
- If a first-mover advantage can be shown, is that advantage sustained in the face of competition?

- When first-mover advantages are attempted through alliances, do they most often succeed or fail?
- Where first-mover advantages depend upon technology-based innovations, are these advantages sustained in the face of imitation?

There is strong empirical support for the belief that the firm that first successfully introduces a new product can expect to realize monopoly profits for some period of time – in other words, the firstmover advantage is real. "However, whether these first-mover monopolistic advantages are temporar y or more durable will be largely determined by the responses of rivals. By quickly imitating new product introductions, rivals can adversely affect the durability of the first-mover advantages by sharing and/or reducing their potential profits."<sup>17</sup>

Successful first movers create shareholder wealth and monopolistic profits that can be realized for some period of time, but it is not clear that the costs associated with being a first mover generally offset the risks of being wrong when compared to the option of being an early imitator. Hence, several business notables, including Peter Drucker, advocate of an early imitator strategy. Often, the durability of a first-mover advantage depends on whether an innovation has weak or strong "appropriability" – the level of difficulty for a competitor to appropriate or imitate the technology or product attributes that support any first-mover advantage that may exist.

Many first movers attempt to use alliances to create an advantage. However, alliances present difficult governance and trust challenges. Overall, two thirds of all alliances fail. Marketing alliances are the most likely to fail to achieve their expected results, while technical alliances – the relationship between Motorola and Apple, for example – are more likely to succeed.

<sup>&</sup>lt;sup>17</sup> Hun Lee, Ken Smith, Curtis Grimm and August Schomburg. "Timing, Order and Durability of New Product Advantages with Imitation." *Strategic Management Journal*, Volume 21, Number 1, January 2000, 23.

One of the relatively few Web-focused business-tobusiness studies completed to date reveals that most electronic-commerce (EC) systems can be readily imitated and are difficult to patent. Furthermore, in many instances, the technology underpinnings (applications and infrastructure) of the first mover's business are hosted by a third-party service provider, a business designed around the weak appropriability of technology. "Overall, the strategy research to date suggests that reliance on IT cannot be a source of sustained competitive advantage. This is probably also true for doing business on the Internet, and true for first movers who implemented EC innovations but had limited industry expertise as well."<sup>18</sup>

If innovation appropriability is very weak and imitation results in nearly identical services, the durability of the first-mover advantage for EC-centric industries is very low.

The only remaining question is one of timing. Is there an improvement in durability when imitation is delayed? Drawing on product innovation information for long-distance telecommunications, personal computers and the brewing industries from 1975 through 1990 - well before the Internet was a credible infrastructure - and hypothesizing that there should be improved durability with time lags in imitations, researchers observed that "correlation analysis suggests that timing of imitations does not significantly influence the durability of shareholder wealth for first movers." <sup>19</sup> They conclude that although "imitation negatively impacted the first movers, it is interesting to note that even late imitations can significantly influence the durability of shareholder wealth to the first movers. It may be that late imitators, while gaining little advantage for themselves, substantially erode first-mover advantages by transferring what was once a new product into a commonplace commodity."20

#### Reality:

Being a successful first mover does create monopoly profit opportunities for innovative firms; however, most first-mover efforts fail. Many leading business leaders encourage employing a business strategy of early adoption.

- The durability of successful first-mover advantages often depends on strong specialized assets to prevent perfect imitation.
- Technology rarely provides a durable advantage, since its benefits are normally unpatentable, which allows rapid appropriation by imitators.
- Most alliances fail to achieve expected results and simply disband. Marketing alliances are the weakest, while technical alliances have better overall chances.

#### Implications:

- Being a first mover is not a necessary or sufficient condition for a successful e-business initiative.
   A sound, well-developed business strategy that addresses customer, vendor and employee needs will incorporate the Internet properly in the overall activities of the firm – creating a "rightmover" advantage.
- The Internet is an infrastructure open to anyone at minimal expense. Easy to appropriate by design, the Internet alone cannot be a source of competitive advantage.
- Most Internet-enabling technologies (like infrastructures or application maps) are built to be open and easily appropriated by all firms. Therefore, these technologies – with or without the Internet – cannot be a source of a durable firstmover advantage.
- Most Internet alliances will disband after failing to achieve a first-mover advantage.
- The Internet, supported by appropriate technologies that enable a firm to accentuate its specialized assets, can create a durable business advantage. (Compare Charles Schwab with any e-brokerage firm.)

20 Lee, et al., op. cit., 29.

## <u>csç perspectives</u>

<sup>&</sup>lt;sup>18</sup> Chircu, Alina and Kauffman, Robert J. *Reintermediation Strategies in Business-to-Business Electronic Commerce.* Minneapolis: University of Minnesota, January 25, 2000, 14.

<sup>&</sup>lt;sup>19</sup> Lee, et al., op cit., 27.

#### Intermediaries and ÒdisintermediationÓ

#### Assumption:

Hierarchical business relationships, in which a manufacturer sells to or through a distributor that sells to a final consumer, will be replaced with a hyperarchy in the form of a many-to-many distribution channel. With manufacturers selling directly to product users, for example through net markets, traditional middlemen will no longer be required. This process of disintermediation will create new market structures and business models and replace traditional emphasis on brand with a new emphasis on low-cost product acquisition.

#### Discussion:

Firms are beginning to show a renewed focus on growth in top-line earnings that translate into bottom-line growth. This trend was encouraged by the recent reevaluation of certain equity prices more commonly traded on the NASDAQ. In this climate, executive attention naturally turns to sales, marketing and other customer-facing activities that result in the sale and distribution of products.

In the business-to-business arena, it has long been postulated that existing hierarchical distribution networks were maintained and supported by relatively high search costs. This assumption held that even though better pricing opportunities regularly existed for any given purchase a company needed to make, the costs of finding those opportunities overshadowed the savings that could be derived. Investment in IT networks (EDI at the time) were expected to lower search costs and cause firms to rely more on search in their procurement efforts. In this environment, as today, brand is hypothesized to be secondary and even unimportant as market participants move from hierarchical networks to broader, market-based networks.

This change in market structure was called the electronic market hypothesis (EMH), and for the last 20 years, adherents have forecasted the demise of traditional intermediaries and the advent of numerous electronic markets in their place. Instead, the result was tighter "electronic hierarchies, which were interfirm relationships characterized by less use of search and market competition and more use of tightly coupled operations with a few long-term partners."<sup>21</sup> Hypothetical reasons for this move to a more concentrated relationship centered on decomposing transaction costs and related risks within the context of appropriate interfirm governance structures. They suggested, for example, that it is cheapest and best to have the fewest possible trustworthy relationships providing all required SKUs.<sup>22</sup>

As discussed earlier, intermediaries provide valuable services associated with product aggregation, product information deliver y, procurement, order management, logistics, repackaging and other capabilities on both sides of the value chain. Whether identified as distributor, middleman, net market or retailer, these businesses – if they are to thrive – provide value-added services to the sales and marketing function.<sup>23</sup> Three types of intermediaries have emerged:

- Traditional aggregators firms that bring multiple buyers and sellers together in existing distribution channels of existing and established markets.
- EC-only aggregators firms that bring multiple buyers and sellers together primarily over the Internet and through supporting call centers.
- EC-able aggregators firms that use the full range of available infrastructures, including the Web, to bring multiple buyers and sellers together.<sup>24</sup>

The conditions for reintermediation arise because of the weak appropriability of supporting technology, the desire for buyers and sellers to have more concentrated relationships, buyer preference for branded products and branded distribution outlets, and the ownership of specialized assets<sup>25</sup> by the existing aggregators in the value chain. These conditions led firms to abandon attempts to operationalize the EMH in earlier business strategies and fostered the

- 24 Chircu, et al., 10.
- <sup>25</sup> Ibid., 14.

<sup>&</sup>lt;sup>21</sup> Clemons, Eric K., Reddi, Sashidhar P., Row, Michael C. "The impact of information technology on the organization of economic activity: The 'move to the middle' hypothesis." *Journal of Management Information Systems:* Volume 10, Number 2, 3-5. Also see Chircu et al., *Reintermediation Strategies in Businessto-Business Electronic Commerce,* Table 1.

<sup>&</sup>lt;sup>22</sup> Ibid., 6-10.

<sup>23</sup> Chircu, et al., op cit, 10.

relatively rapid consolidation of distributors in virtually all industries in the past 10 years. This process of reintermediation has resumed, after a brief disruption caused by early EC-only aggregators.

#### Reality:

- Early business strategies around EDI created the many-to-many distribution model over a decade ago.
- Technical conditions for reintermediation favor EC-enabled intermediaries over EC-only intermediaries. Technology and Internet infrastructure are readily available and cheap to imitate.
- Customers favor EC-enabled intermediaries over EC-only intermediaries. Buyers favor fewer and tighter relationships providing access to all relevant SKUs over search. Customer preference for branded products and strong company brand image serves as a proxy for trust, reliability, quality and customer service in the electronic commerce environment.

#### Implications:

- Business models that depend on EC-only distribution are not likely to succeed. Early retail versions of this intermediary model (like Amazon.com) face the largely insurmountable obstacles of readily appropriable technology and infrastructure as well as a single distribution channel option regardless of consumer preference (for example, retail stores).
- Reintermediation will continue to lead to a consolidation of distributors. After a short disruption in the decade-long trend toward consolidation, while the Internet version of the EC-only model of distribution was tested, a consolidation of EC-able intermediaries has emerged.
- Business models such as net markets that rely on a many-to-many, low-cost search preference are likely to prove unprofitable. The Internet does not correct the conditions that lead to the unsuccessful attempts in the past to make the EMH operational.
- Successful EC-enabled distribution systems and surviving EC-only distribution systems will have to be branded and will have to distribute a strong line of branded products. The impersonal aspects of e-business heighten a consumer preference for brands.

#### Considerations for Ensuring e-Business Success

The confusion today about the role and power of the Internet is visible in organizational structures, technical infrastructures and processes aligned to one or more of the previously discussed myths. Executives must carefully evaluate these initiatives in light of e-business reality, while ensuring that conflicting concepts of business roles and functions do not develop.

Some practical points for consideration follow:

- The Internet has created disruptions in every value chain and distribution channel, from heavy industry to financial services. These disruptions center on the Web's ability to provide an infrastructure over which one or more value chain participants assume greater business process and product and service responsibilities from buyers and sellers. Most distributors have been reluctant to embrace these new responsibilities – opening a door to other firms, particularly manufacturers, that will seize the opportunity.
- There is a temptation to embrace one or more e-business myths to launch into an entirely new business role – from manufacturer to distributor, from distributor to outsourcer and so forth. Internet infrastructure and supporting technology is quickly and aggressively acquired by established businesses in every possible role, making it difficult to disintermediate serious competitors. Business roles and functions are not changed by the Internet. What does change is how supporting processes are performed and how information is used.
- New intermediaries must remember that distribution is a volume-based revenue model at margins that must be tight to be scalable and attractive to the buyers and sellers. Technology and the Internet alone are not enough to differentiate one firm from another. Assets, such as an established customer or vendor base, a patented technology, exceptional logistics, warehousing, and picking and packing expertise are needed to disintermediate established or dawdling competitors.

### <u>CSC perspectives</u>

Conventional Wisdom	e-Business Reality
Prices are lower over the Web.	The evidence is mixed. There is some suggestion that unit prices are clearly lower, although total acquisition costs with shipping and taxes make this difficult to determine.
Buyers will move to the lowest-priced source of product.	There is no evidence to support this contention. Evidence shows that certain online shoppers are less sensitive to price changes than traditional shoppers. Price dispersion results suggest that consumers are not primarily focused on price.
The Web has more efficient pricing.	The evidence is mixed. Price dispersion is as great on the Web as in traditional retail outlets, even though menu costs are significantly lower and prices may change 100 times more frequently.
Web shoppers are less loyal than traditional shoppers. Branding does not matter.	There is no evidence to support either of these contentions. In fact, brands seem to matter more to Web shoppers, who rely on brand as a proxy for trust.
Hierarchical distribution structures will be replaced by multiple, unstructured product sources.	There is no evidence to support this contention. To the contrary, the electronic market hypothesis is rejected by research and replaced with a move-to-the-middle hypothesis that is characterized by fewer and stronger electronic hierarchies.
It is critical to move at "Internet speed" to capture a first-mover advantage.	The first-mover advantage is real, but limited by the ease of imitation. Furthermore, there is no support for the contention that the longer a firm maintains the first-mover advantage, the harder it is to lose the related economic benefits.
Technology provides the strategic edge that new intermediaries such as net markets need to disintermediate old-economy companies.	There is no evidence to support this contention. To the contrary, IT edges are shown to have weak appropriability, which traditional aggregators are using to reintermediate the value chain.

#### CONVENTIONAL WISDOM VS. E-BUSINESS REALITY

- Competitive prices and product quality are table stakes in the minds of retail and institutional buyers – rarely the primary focus of a buying decision. Trust, reliability, quality and service are the elements that differentiate one firm and product from another. Brand becomes a proxy for these attributes and is as important to buyers as ever – especially in a world where competitive prices are assumed. Aggregator reliance on privatelabel products and manufacturer reliance on sales volumes will be increasingly unrealistic means of improving margins.
- Aggregators have dwindled in number over the past decade as margins declined. All businesses in this role must be able to provide a single point of contact to the entire universe of SKUs required by the

buyers the aggregator is trying to serve. The number of distributors will continue to shrink as margins are pressed by this expanded customer expectation, but profitability improvement is possible for the survivors as volumes increase multifold.

 Product producers and outsourcers need to choose their channel partners carefully. Most should avoid the temptation to ally with an aggregator who asserts "we will be your e-commerce strategy." Strategies must be carefully constructed to support a full range of distribution channel infrastructures that are aggregator independent.

CSC

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### about CSC

Computer Sciences Corporation, one of the world's leading information technology services providers, helps organizations achieve business results through the adroit use of technology. Since its formation in 1959, CSC has earned a customercentric reputation for developing and managing solutions specifically tailored to each client's needs. No other company offers the same range of professional services and global reach as CSC does in areas such as e-business strategies and technologies, management consulting, information systems consulting and integration, application software, and IT and business process outsourcing.

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