

EXTENDED ENTERPRISES

CHANGE AGENTS IN THE EXTENDED ENTERPRISE ENVIRONMENT

Global connectivity and the changes it supports are perhaps the most significant component of the current paradigm realignment. Through connectivity with the Internet, an enterprise is now able to conduct business anywhere, anytime—eclipsing the traditional constraints of time, distance, and location. This has paved the way for the current global outsourcing and offshoring. The Internet is also enabling a transformation of business processes and procedures. This transformation is occurring in a series of phases starting from the availability of information for marketing and improved communication to the evolution of virtual markets, to the fulfillment of orders and payments and, finally, to after-sale support of customers. As enterprises commit resources to transform into extended enterprises, education and training must be provided to employees, business partners, suppliers, and customers to close any gaps between required strategic objectives and current skill levels. Furthermore, these phases are not necessarily contiguous, as ongoing business and technology developments are creating the need for constant reinvention of business processes within each phase.

Here are some of the early change drivers that have paved the shift toward the extended enterprise approach of doing business:

- Customer empowerment
- Globalization of markets
- Visionary leadership

- Dramatic cost reduction
- Reduced time-to-market
- Improved logistics and delivery
- E-business
- Global workforce outsourcing and offshoring

Customer Empowerment

Global connectivity has turned the traditional supplier-customer relationship upside down. The assembly line approach to production technologies is rapidly giving way to customer-driven production processes, which in large part are enabled by the Internet and the use of extended partners. Customers can pull down information as and when needed and reach out instantly to a multitude of suppliers. Accordingly, suppliers must transform their business processes to respond to the customer as the one-to-one business driver—both in their marketing and in their provision of ongoing customer service. These changes apply to both business-to-business markets and business-to-consumer markets. One example of the customer-driven production process is Dell's ability to configure equipment to match the needs of an individual buyer, thus forever changing the nature of personal computer (PC) retailing. This customer empowerment approach has now been adopted by other PC manufacturers, such as IBM and Hewlett Packard. In the business-to-business venue, most of the automotive manufacturers now are reaching out to extend themselves as they do business with suppliers, and so on. They, in turn, are positioning themselves out toward the customer (dealerships and purchasers).

Globalization of Markets

Interconnectivity through the use of the Internet is driving competition, lowering costs, and reinforcing the shift to globalization. By interconnecting buyers and sellers without geographic constraints and taking advantage of the extended environment, nimble players can gain rapid market share at the cost of well-entrenched incumbents. Over the last several years, there has been some rather drastic dismantling of the late 1990s business model espoused by a click-only strategy, toward embracing more of a click and mortar strategy. However, this new interconnectivity has created an opening of the global markets to even the smallest of players. The characteristics of products/services have a large influence

on whether the buyers and sellers can interconnect without geographic constraints. The click and mortar strategy is not always easy for small players, because it may require a large investment for infrastructures, such as warehouse and distribution centers. Small players may seek partnering with other players to stay in the game. The rapid market-share growth that was attained by e-portals (gateways to a multitude of suppliers), such as Amazon.com, attests to the impact that new entrants can generate in almost any market segment, if the focus on the customer is unrelenting. This partnering will continue to create interdependencies as never before.

Visionary Leadership

Senior leaders ensure the creation of strategies, systems, logistics, and processes for achieving the necessary enterprise excellence. In the new economy, leadership needs to work to encourage all employees to contribute, learn, innovate, and be creative. Just as the customer has been empowered, so must the employee. Leaders need to serve as role models; and with the shift to the global market, the need for cost reductions, and reduced time-to-market, the new leadership must be able to swiftly reinforce both values and expectations as they form and sustain the enterprise's culture.

Dramatic Cost Reduction

Physical inventories have always been a major cost component of old businesses. In the emerging business model, certain businesses will seek to maintain virtual inventories by directly linking to suppliers. In turn, this will lead to a reduction in required inventory levels, as the supplier can ship directly to the customer. In other businesses, such as manufacturers, these entities also seek to lower inventories by having suppliers maintain component inventories at nearby locations, or they are involved in collaborative product design and coordinated production scheduling with other enterprises. In addition, new ways of doing business means many of the traditional distribution approaches associated with showrooms, catalog production, and so on, are set to decline. These trends may enable cost reductions and provide an engine of growth for the global economy into the future. Cost reductions may also occur from customers contacting suppliers directly, but there are some additional costs to be faced in providing sound, adequate, and robust security over customer access to the enterprise's networks and applications and in storing greater volumes of information for customers to access.

Reduced Time to Market

Minimal time to market is no longer just a competitive advantage but a competitive *necessity* for survival. Through collaborative product development and knowledge sharing with business partners, time to market can be successfully reduced. In some cases, a customer can actually become involved in product development, such as software and computer hardware development. For example, software companies now often release the beta version of a new software product on their website, thus allowing customers to download the software for free and provide timely feedback to the software developers. This not only benefits the developer, it also helps to create an increased future demand for the product.

Improved Logistics and Delivery

To be successful in Internet commerce, an enterprise must be as effective in the physical world as it is in the electronic arena. Time-value is an essential variable in today's e-business environment and is a critical component of customer service. To accommodate this need, the role of the warehouse itself has changed from being a holding bin to an assembly plant. For example, computer distributors assemble computers from standard parts instead of having assembly by their brand custodian's warehouses. Also, global couriers, such as FedEx, are positioning themselves to become tomorrow's flying assembly plants.

E-Business

The drivers mentioned provide an indication of some of the emerging trends in the extended enterprise environment. Also, these drivers represent a broad framework for enabling new forms of business, for requiring new strategies for business, and for encouraging the evolution of e-business in the extended enterprise.

To effectively support e-business, organizations must turn inwardly focused processes around to face outward toward customers, trading partners, suppliers, and distributors. The outward-facing applications must include business partners—particularly where interconnections make it possible to do things in ways not previously possible by eliminating time, distance, and location. Current inward-looking applications that may need to be realigned include research and development (R&D), engineering, manufacturing and production, supply chains, marketing, sales, and customer support.

E-business is an infrastructure for a whole new way of doing business and must extend the business processes across organizational boundaries to integrate them with suppliers' and customers' business processes and eradicate unproductive and/or duplicate processes. Whether developing e-business applications in-house or implementing an enterprise resource planning (ERP) package, a holistic approach to business initiatives must be refined for today's entities to have a chance for success in the new extended environment.

Global Workforce Outsourcing and Offshoring

In the age of global specialization, each piece of the enterprise must add value to the overall business. Currently, there is an emerging sense of comparative advantage where businesses or parts thereof are focusing on what they have competence in and do well and outsourcing the other functions to partners to overcome any comparative disadvantages in the global market. Examples of this can be seen in organizations such as IBM, Dell, and Sony. All three are using this model to enhance their core competitive model. Responsiveness is needed to change and to adapt to conditions. Speed and responsiveness require distributed actions, which could go beyond an organization's borders and extend to global workforce sourcing including co-location or even offshoring to other countries.

The idea of global workforce outsourcing/offshoring or sharing services is an important shift from the old economy to the extended enterprise. A global workforce, if implemented correctly, can play a critical role in boosting shareholder value and permit an organization to focus on areas that are part of their competencies and critical to inventing, manufacturing, and selling. It allows something of importance to a business to be performed by others that may have the expertise and may do it better, more economically, or in a more appropriate location. Self-sufficiency could be too costly.

PARADIGM SHIFT IN THE BUSINESS ENVIRONMENT/CHANGES IN PROCESSES

Michael Hammer, one of the world's leading authors on business strategy, states in his book, *Beyond Reengineering*, that as global competition grows, organizations are turning to virtual integration, which lets them concentrate solely on the processes in which they know they can be world-class, and have a competitive advantage. They will then rely on, or partner with, someone outside the enterprise to perform the rest.¹

Similarly, Kevin Kelly, a well-respected author on the subject, states, “The final destiny for the future of the company often seems to be the virtual corporation—the corporation as a small nexus with essential functions outsourced to subcontractors. But there is an alternative vision of an ultimate destination—the company that is only staffed by customers. No firm will ever reach that extreme, but the trajectory that leads in that direction is the right one, and any steps taken to shift the balance toward relying on the relationships with customers will prove to be an advantage.”²

As mentioned earlier, the phenomenon where an organization extends outside its traditional boundaries is commonly described as an *extended enterprise*, a *virtual enterprise*, or even as a *virtually integrated enterprise*. In the diversity of the e-business environment, the greatest benefits for an organization have been attained by those entities that endorsed and embraced this extended enterprise concept, and then adapted it to best fit the environment in which they operate.

In the past, management-led organizations were structured as vertical silos. They typically did everything (R&D, manufacturing, distribution, sales, logistics, and customer relationship management) under one roof. Additionally, the processes that made up the traditional businesses were pointed inward. With competition, organizations began to disperse some of the key business activities to various geographic locations, but still within the same enterprise. Gradually, cost constraints and global competition have forced these organizations to look beyond their internal boundaries—for example, at outsourcing all noncore activities. However, it was not until the advent of the Internet and the related ability to have inter-networked enterprises, that outsourcing could actually be structured into a more strategic focus.

With the rapid proliferation of Internet and web-enabled technologies, customers and other stakeholders expect, and are now able to select, the best quality of products/services offered around the world, thus *world class*. Education of the masses due to the Internet is creating a new value proposition where the old optimization triangle (cost, time, and value) can all be optimized, whereas previously only two of the three (inexpensive and quick with lesser quality) could be accomplished. This shift is now creating an enormous change in how value and services are perceived. Opportunities for enterprises to make significant improvements in productivity, customer service, and quality have never been greater. Increasingly, for enterprises to survive and ensure growth, they must provide world-class products/services without taking into account geographic boundaries. Many organizations are now focusing on their core competencies, or what they can do best, and extending

their business processes by teaming with networks of similarly focused partners and sharing services.

Partners of an extended enterprise share a sense of co-destiny, thus nurturing high-quality collaboration. More and more, organizations are realizing that they cannot innovate in isolation. To the contrary, network technologies now available enable a level of organizational agility where the key to growth lies in the forging of effective virtual inter-organizational relationships. Through this agility, enterprises can deliver their products/services to their customers and business partners quickly, efficiently, and at the same or higher level of expected quality, but at lower cost. A paradigm shift has occurred with these emerging practices in the business environment, as would be expected when transferring to meet the demands of the extended enterprise.

The extended enterprise structure can best be described as a combination of extended value chains. Enterprises today are positioning themselves not as simple, one-dimensional value chains, but as value networks that pull together capabilities in a nonlinear fashion. Enterprises can participate in multiple extended enterprises and provide capabilities across many value chains. However, these may add a new level of complexity in the interacted relationships of the new partners of the value chain.

To achieve coherence and manage the complexity and change inherent in multiple e-business applications, each partner of an extended enterprise needs to share objectives, goals, and/or expectations of the group. This environment is not bliss: cooperation is still competition, even between members of the same value chain. Co-destiny, if not properly managed, may end brutally for competitive reasons. In addition, partners have their own shareholder and stakeholder expectations that must be managed. The rule for intellectual property must be considered in the areas of collaborative work on virtual enterprises to ensure that each enterprise cannot display their skills without compliance to these rules. Current legal, accounting, and related structures do not provide any solution for this extended enterprise other than contract-based agreements for trade transactions.

SUMMARY

The examples in this chapter have presented a broad spectrum of ideas and change drivers that are impacting businesses and governmental entities as they focus on conducting commerce in a truly networked and global environment. The one biggest agent impacting organizations that

are doing, or looking to do, business in the extended environment is customer empowerment. The shift has truly created the need to turn the internal processes of an enterprise outward, toward the customer, if one truly expects to be successful in the twenty-first century. The proliferation and acceptance by the customer of the Internet, and its associated technologies, has created a fundamental shift in what is possible, as well as what is expected by the customer. These expectations will have to be met, and sometimes, entities will not be able to do everything themselves, nor move quickly enough themselves, thus the need to partner with others, or extend the enterprise.

NOTES

1. Michael Hammer, *Beyond Reengineering* (New York: HarperCollins, 1996).
2. Kevin Kelly, *New Rules for the New Economy* (New York: Viking Penguin, 1998).