



The evolutionary path of e-business.

Strategic studies reveal how businesses successfully reach e-business maturity

Key Topics

Examines how companies feel about the impact of e-business on long-term success

Reviews the transition progress and migration to e-business for different industries

Analyzes the impact of e-business on the value-chain process

Describes how to conceptualize the full impact of e-business over the coming years

Provides four key drivers that help predict what makes winning companies successful

Introduction

Today, businesses are becoming e-businesses. However, different firms and industries are migrating toward that end at varying speeds. This inexorable transition to e-business raises the question, what, if any, conclusions can be drawn about the path organizations and industries follow as they become more e-business intensive? Perhaps more important, are there predictors that can help CEOs understand where their firms stand in the journey toward e-business maturity?

While there is no crystal ball a CEO can consult to find the answer, there is a way—a relatively easy way—to measure where particular companies are positioned on the e-business continuum. This gauge, developed by Dr. Rashi Glazer—professor at the Haas School of Business, University of California at Berkeley—along with consultants from IBM, uses 40 key drivers to explain the degree to which a given organization has matured into an e-business. These drivers were identified from an original set of 80 variables related to a business's customers, competitors, product management and organizational structure.

Glazer identified the predictors in a detailed survey of 600 managers from several industries, including:

- Communications
- Finance
- Government
- Industrial
- Distribution
- Insurance
- Manufacturing
- Professional services.



The extensive survey resulted in a unique method to measure how a firm's generic value chain—including research and development, production, operations, marketing, sales, human resources and management information systems—is being influenced and transformed in terms of five e-business functions, including:

- Connectivity—The amount of electronic interconnections between value-chain processes, either internally or externally
- Availability—The continuous operation of a company's supporting technological infrastructure
- Interactivity—The extent to which an organization uses the capabilities of the network to conduct two-way exchanges within the value chain
- Information elements—The extent to which an organization offers “smart”, or information-intensive, products and services
- Attention utilization—How well a business manages a customer's time at various interactive touch points.

The greater the transformation these functions have upon the components of a company's value chain, the more e-business intensive the organization is considered.

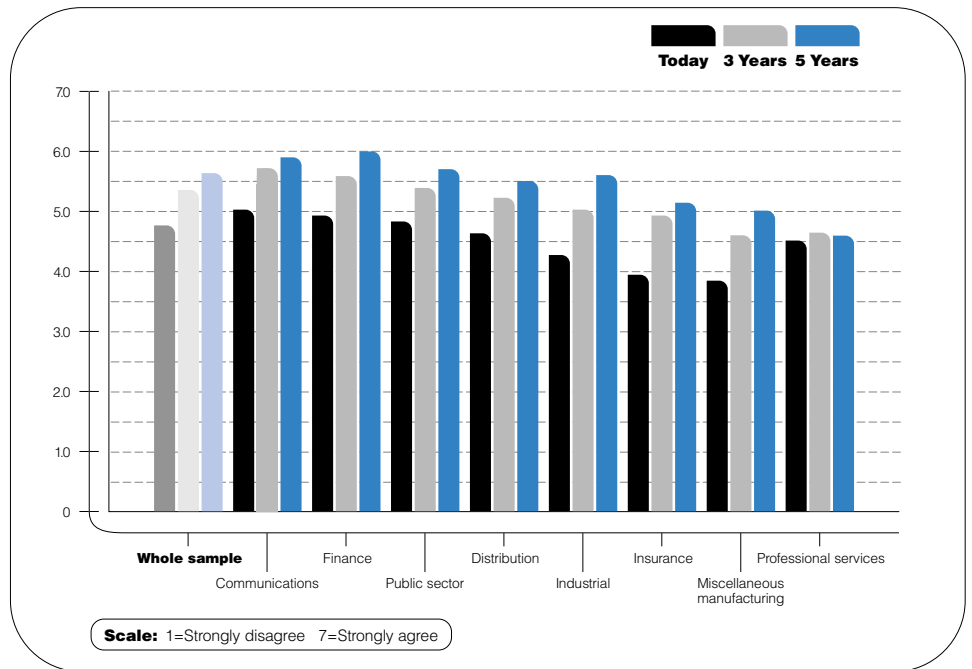


Long-term success is dependent on e-business

According to Glazer's team, a company's transformation toward e-business intensity focuses on three considerations, including:

- To what degree does the organization perceive e-business as critical to its success?
- How well-defined is the company's e-business strategy?
- Is this company an e-business strategy leader in its industry?

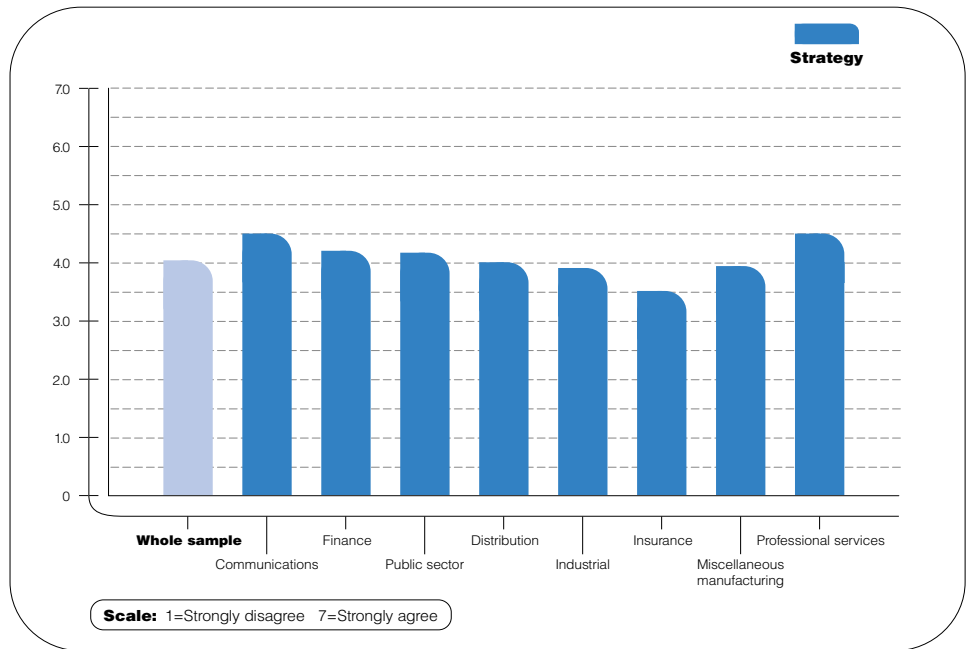
According to Glazer, the research demonstrates that companies clearly understand the revolutionary implications of e-business. However, they have very different perceptions about when e-business will play a crucial role in their performance.



The degree to which e-business is viewed as critical to company success today, in three years, in five years

Only 33 percent of respondents felt that e-business was critical to their success, indicating a wide gap in the perceived importance companies place on e-business today. However, 80 percent of respondents agree that e-business will be critical to their success within three years, and 90 percent of respondents agree that e-business will be critical to their success within five years.

Overall, respondents believe that they have much work ahead before they adequately integrate e-business. In fact, more than 75 percent of respondents believe they do not have a well-developed e-business strategy, and approximately 25 percent feel they lack e-business strategy leadership.



The degree to which companies believe they have a well-defined e-business strategy



Study methodology

Glazer initially engaged in detailed qualitative research, including a series of wide-ranging focus groups and one-to-one interviews, to postulate factors related to a company's value-chain activities and structures that indicated a firm's e-business intensity.

This phase of the research was to test, in a preliminary sense, some general hypotheses—rooted in prior theory—as to the possible evolution of e-business and potential key drivers that might account for the variance in evolution across firms and industry sectors. The output of this qualitative data became the basis of the second phase, which consisted of a detailed quantitative survey comprising 80 factors and given to 600 managers across industries and firms.

Industry variations

Industries, similar to individual organizations, differ significantly in their transition progress and the current status of their migration toward e-business.

The communications industry

Communications—including media and entertainment, telecommunications and utilities—was significantly ahead of other industries in enabling e-business and ranked second in activities that require the Web. It also scored highest on the importance of e-business over the periods of today, three years and five years, and scored high on having well-defined e-business strategies and leadership. The communications industry's advanced e-business leadership is partially explained by the fact that it exchanges massive amounts of information—and it employs technology that provides the most efficient vehicle for delivery.

The insurance industry

The study ranked insurance as the least e-business-intensive industry. Respondents from this industry believe e-business will be critical to their success in five years. They do not have a strong belief that it is critical today. While the research did not determine precisely why the insurance industry lags, Glazer believes it is based on fundamental organizational reasons. However, in some cases it may be caused by innate characteristics of the entire industry. For example, the broker-oriented nature of the insurance industry could account for its present attitude and slower pace of e-business adoption.

Study methodology

Respondents to the survey indicated their level of agreement on a scale of one to seven in accordance with statements in which agreement could be interpreted as support of the particular hypothesis represented by the item. They also provided additional information on their industry and their firm's product marketing objectives, product market share and product growth rate. The result was 40 key drivers that clearly indicate where a company stands in relation to its transition to e-business (that is, its "e-business intensity"). The research clearly shows that it is possible to formally model—and therefore predict and understand—the specific value-chain factors, or key drivers, associated with different levels of e-business intensity. The model, for the sample as a whole and across individual sectors, resulted in "goodness of fit" measures (R^2 s) that are quite high by typical social science standards for data of this type.

The impact of e-business

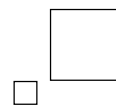
Regardless of where a particular company or industry is positioned on the transition scale, it is clear that e-business impacts the value-chain process in the exchange of goods, money, services and information. In Glazer's view, basic market elements—who, what, when, where, how and why—are being radically altered by e-business.

As companies incorporate e-business into their processes, a number of unique secondary effects are taking place. These effects include customers becoming more empowered, product development processes becoming more collaborative and marketing techniques becoming more targeted.

Valuing the consumer

Economic theory is rooted in the notion that individual "agents" specialize in the roles of producers and consumers for any particular good or service. Based on the notion of consumer sovereignty, a fundamental assumption of market behavior is that the purpose of the firm is to satisfy and respond to the needs of customers; that is, the role of supply is to meet demand. This concept of consumer sovereignty, and the absolute necessity of firms satisfying customer needs, is at last becoming a reality. No longer just a theory characterized in textbook accounts, it is changing marketplace behavior.

At the same time, a second major development—a breakdown in the specialized economic roles of producers and consumers—is occurring. Additionally, a system is emerging in which firms and customers increasingly interact and participate together in the design and delivery of offerings.



Top variables for high e-business-intensity scores

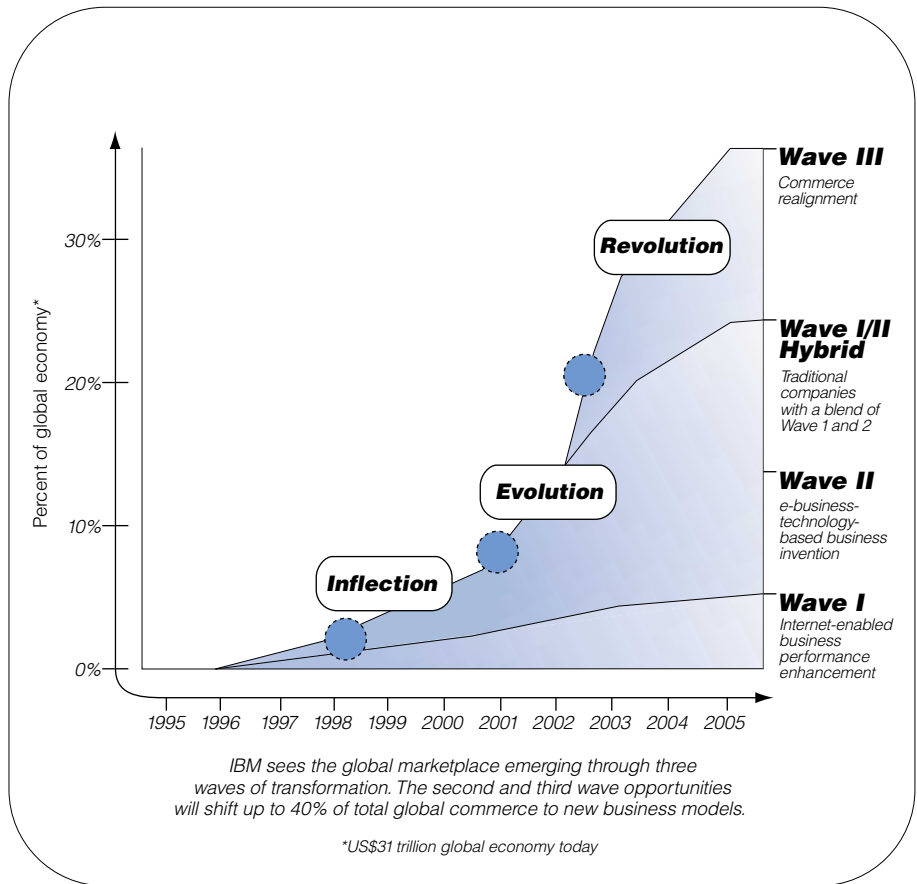
- Customers willingly and frequently provide information about themselves electronically.
- The company shares information about competitors rapidly throughout the organization.
- The company has more competitors than in the past.
- The company places a higher value on hiring employees with good learning skills than those with a specific skill set.
- The company uses more on-the-job training than in the past.
- The Internet is changing recruitment and assessment of potential employees.
- Management information systems/ information technology functionality is increasingly playing a strategic role in the organization.
- The company places increased importance on innovation.
- The company places less importance on the ability to forecast product demand.

Finally, as a consequence of both the process of interactivity and the development of “smart,” or information-intensive, goods, successful companies treat consumers as individuals and not as parts of larger aggregates or segments. Customer relationship management, one-to-one marketing and valuing the customer as the “new asset”—as opposed to the product—are becoming paramount to the organization in the growing Web world.

Conceptual model of the e-business transition

Glazer’s research study highlights the existing state of e-business maturity in companies and industries today, but how can the full impact of e-business over the coming years be conceptualized more clearly? Glazer’s study is part of an extensive effort by IBM to help firms understand the ramifications of the rapid transition to e-business.

Earlier IBM research by David Partridge, director of Research for IBM Consulting, suggested that e-business is an evolutionary movement that proceeds in three waves. This conclusion was based on a series of strategic studies that analyzed and measured the state of e-business.



The Internet economy as a percentage of global commerce

Wave I

In wave I, e-business begins to enable the enterprise by focusing on efficiency and cost reduction. There are no fundamental changes to the underlying business model. Companies improve existing internal processes or use the Internet as a new electronic channel to affect the supply chain and product distribution. Companies simply use e-business to execute existing processes. Most Internet banking, for example, is characteristic of wave I.

Wave II

Companies in wave II create new business models that require the Internet for their very existence. Companies forging these models feature economies of access, scale and scope through disaggregation—eliminating the middleman—and other fundamental changes to the value chain. Online trading is an example of wave II.

Wave III

The third wave is characterized by significant realignment and redefinition of industries, as the distribution of information definitively shifts power from producers to consumers. “If the three waves’ model is correct, and e-business captures a large share of the global economy, which I believe it will,” Glazer says, “then companies and industries that are ahead of the curve are obviously in a much better position to exploit change than those who are merely thinking about it. Change is happening so fast, it is critical that companies measure where they are in absolute terms and relative to their competitors.”

The critical drivers: final research conclusions

The Glazer study has done much to explain the existing state of e-business maturity in the market and enhance our understanding of the future direction of e-business in general, as described via the wave model. In addition, the study revealed four key drivers that are particularly predictive of e-business maturity and enlighten our understanding of what makes winning companies successful.

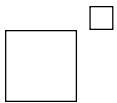
The most mature e-business-intensive companies:

- Share information about customers rapidly throughout the organization
- Use the Internet for interacting with customers more than others in their industry
- Have a highly interactive Web site
- Lead their industries in the use of information technology in general.

Glazer's report says that "though correlation does not imply causation, the results of the current research strongly suggest that those organizations wishing to 'evolve quickly' with respect to e-business would do well to pay attention to these four factors, which, when taken together, argue for the need to use information technology in general, and the Internet in particular, to share information and interact with customers."

Helping customers transform their business via the Internet

IBM has a core team of consultants working with business schools, academics, IBM Research and its own consulting community to help its business partners and customers plan, build and manage successful business processes on the Web. IBM offers a full range of solutions for the next generation of e-business. Our expertise has been earned through more than 20,000 e-business engagements that deliver real business value. IBM comprehensive e-business services help enterprises build "sense and respond" organizations by tapping into opportunistic marketplaces; using best-of-breed applications; and building responsive, scalable and security-rich infrastructures. The people of IBM Global Services can help your company, whether it is a brick-and-mortar business or an Internet-generation startup, develop an exceptional e-business strategy tied to your vision for the future.





For more information

For more information about the evolutionary path of e-business or to discover where your company stands in the e-business continuum, please contact insights@us.ibm.com.

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