## *Learning Track 1:* How Much Does IT Matter?

In May 2003, Nicholas Carr, an editor at Harvard Business Review, wrote an article titled "IT Doesn't Matter," which stirred significant debate in the business community. Carr's argument in a nutshell is that because every firm can purchase IT in the marketplace, because any advantage obtained by one company can easily be copied by another company, and because IT is now a commodity based on standards (such as the Internet) that all companies can freely use, it is no longer a differentiating factor in organizational performance. Carr argues that no firm can use IT to achieve a strategic edge over its competitors any more than it could with electricity, telephones, or other infrastructure. Therefore, Carr concludes, firms should reduce spending on IT, follow rather than lead IT in their industry, reduce risks by preparing for computer outages and security breaches, and avoid deploying IT in new ways. In 2013, how does Carr's argument stand up?

Most management information system (MIS) experts disagree. As we discuss later in this chapter and subsequent chapters throughout the book, research demonstrates that there is considerable variation in firms' ability to use IT effectively. Many highly adept firms continually obtain superior returns on their investment in IT, whereas less adept firms do not.

Copying innovations of other firms can be devilishly difficult, with much being lost in the translation. There is only one Google, one Wal-Mart, one Amazon, and one eBay, and each of these firms has achieved a competitive advantage in its industry based in large part on unique ways of organizing work enabled by IT that have been very difficult to copy. Many very powerful firms have tried to copy each of these dominant firms without success. If copying were so easy, we would expect to find much more powerful competition for these market leaders. It's also the case that these firms have often failed to move out of their niche products by imitating others.

Although falling prices for hardware and software and new computing and telecommunications standards such as the Internet have made the application of computers to business much easier than in the past, this does not signal the end of innovation or the end of firms developing strategic edges using IT. Far from the end of innovation, commoditization often leads to an explosion in innovation and new markets and products. For example, the abundance and availability of materials such as wood, glass, and steel during the last century made possible a continuing stream of architectural innovation. Likewise, the widespread availability of cloud computing in 2013, a good example of commodity computing, is leading to thousands of new products and services. The same can be said with mobile phones and tablets.

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Likewise, the development of standards and lowering costs of computer hardware made possible new products and services such as the Apple iPhone, tablet computers, iTunes, online streaming music and video, and the entire online content industry. Entirely new businesses and business models have emerged for the digital distribution of music, books, newspapers, radio, journals, and Hollywood films.

Carr is surely correct in stating that not all investments in IT work out or have strategic value. Some are just needed to stay in business, to comply with government reporting requirements, and to satisfy the needs of customers and vendors (often raising costs and depressing profits for a period of time). Therefore, yes, not all IT investments lead to strategic advantages. Most IT investment is not intended to lead to strategic advantages. Perhaps the more important questions in 2013 are how much does IT make a difference, in what industries and firms, and where can it best be deployed to make a competitive difference? Why do some firms achieve a strategic edge with information systems, and some firms do not?

We make a major effort in this book to suggest ways you as a manager and potential entrepreneur can use information technology and systems to create differentiation from your competitors and strategic advantage for your firm in the marketplace. As we describe throughout, to achieve any measure of "success," investment in IT must be accompanied by significant changes in business operations and processes and changes in management culture, attitudes, and behavior. Absent these changes, investment in IT can be a waste of precious investor resources.