Introduction

At its most basic level, a financial institution is composed of four things: a brand, a collection of personnel, some physical assets, and analytic (information) assets. The last category includes things like data, data processing capabilities, statistical models of various kinds, and other analytic and reporting capabilities. This categorical breakdown is simplistic, and not exactly clean. For example, there is an overlap between physical assets and data processing capabilities: Are the computers themselves physical assets or information assets? Overlap also exists between personnel and analytic methods: Does a buy or sell decision stem from an analytic method or from a person who makes buy and sell decisions? In spite of this lack of clarity, using this categorization—even in its most simplistic form—can help to frame the crucial underlying competitive issues facing financial institutions today. These issues can be summarized as follows:

1. If you have a strong brand, great, try to preserve it. If not, try to build one. But how?
2. If you have great personnel, great, try to retain them. If not, try to attract them. But how?
3. Physical assets are highly fungible, depreciate rapidly, and matter little, except insofar as they contribute to brand strength and the ability to attract and retain talent.
4. Information assets, actively and effectively managed, create competitive advantages and improved financial results. This helps to build brand strength and attract top talent.

Under this simple view, a financial institution that wants to be more competitive and more successful needs to focus assiduously on more effective management of information assets, including data acquisition and information processing. The goal of this book is not to describe the ideal state for any particular aspect of any business process within an

actual financial institution. Rather, its goal is to suggest a prioritization of certain capabilities as critical *strategic* core competencies, provide some thoughts about *better* (if not *best*) practices, and to suggest a set of mechanisms for self-evaluation. In other words, how does an institution evaluate its information processing capability and take practical steps toward improving it?

Nearly every month the media report cases of major blunders by financial institutions in trading, reporting of financial information, and mishandling of customer information, along with censures from regulators caused by failures in data management or information processing. While these high-profile events may be signaling something about the capabilities of specific firms or about the average level of capability within the industry as a whole (raising concerns about the potential frequency of future costly gaffes), the underlying issue is not about the cost of isolated blunders. Instead, it is about the efficiency and effectiveness of the tens of thousands of tasks that financial institutions need to perform every day in order to earn their right to exist. The deeper question that ought to be asked by investors, managers, and other market participants is how well can these institutions develop, market, and manage financial products and services relative to their peers, given that these activities are critically dependent on information processing capabilities?

Importantly, financial institutions need not only be concerned about direct competition from more capable peers. They also need to be concerned about encroachment from more capable firms in tangential or even unrelated industries. One obvious threat is from firms whose core competency is squarely in Big Data management and information processing generally. These would include firms like Amazon, Yahoo, and Google, but even firms with other closely related strengths, such as logistics, can be threats to financial institutions that fall behind. For a powerful example, see "Wal-Mart Dives Deeper in Banking," *Wall Street Journal,* April 18, 2014. To cite another example, Facebook now boasts more than 1.3 billion customers (it reported it had 20 million in 2007 and 200 million in 2009), and it is said that the company has more information about its customer base than any firm in history. How difficult would it be for Facebook, assuming