Our earlier discussion on the IT paradox presented the case advanced by some analysts and commentators that IT investments do not return their value to a company in the form of a measurable payoff. The mere fact that there was no measurable payoff does not imply an IT failure because the objective of IT investment might be to protect market share or avoid legal exposure.

On an anecdotal level, the examples of IT failures are plenty. Oftentimes, failures are very valuable teachers—teaching in a manner deeper and more lasting than if the project was a breeze-through success. This chapter is about looking at lessons of IT project failures in other organizations and learning from them.

“Failure is only the opportunity to begin again more intelligently.”

—Henry Ford
Timing is Everything

The timing of the IT implementation decision is one of the critical factors that affects the success or failure of a project. Sometimes, just pushing back the implementation by a week might have had very different consequences. Case in point: Whirlpool Corporation’s implementation of an SAP ERP system. According to SAP AG officials, Whirlpool should have delayed the “go-live” date by a week knowing that certain red flags had been raised. The red flags involved two batch-processing transactions that were taking a long time to feed into the decision support database and the customer service system. However, Whirlpool wanted to take advantage of the holiday weekend and kick off the implementation before the end of the year, and went ahead with the implementation. The rest, as they say, is history. The result was a shipping system that went completely awry and had shipments sitting in warehouses with some stores having to wait six to eight weeks before receiving their shipment. The lesson learned is that it is much more important to have a complete product than to be on schedule, especially in light of red flags observed. This is pertinent advice because we see many projects go live with red flags.

Unrealistic Expectations

Another factor relates to top management’s belief about the extent to which the system and people can perform to carry through a project of mammoth proportions. This is especially true in times when every move seems to be a good move, for example, in the “dotcom era.” CIO magazine presented a detailed report of a company called Close Call (a pseudonym to protect the identity of the company) that fell victim due to

the CEO’s unrealistic expectations. Close Call was in the business of telemarketing and catalog sales. The CEO wanted to implement a data warehouse that would fully integrate the various call centers. The lure of integrated data flow and data on demand was too much to resist. However, the CEO believed that getting the data warehouse up and running in 3–4 months was just a matter of “getting the right people for the job.” The Information Systems (IS) department was already stretched and, therefore, outside help was sought. The expectations, with regard to resources as well as time required, were very unrealistic. After the pilot project turned out to be a debacle, the entire data warehousing project was canceled. While the initial budget slated was for $250,000, the team spent nearly $750,000. Half of Close Call’s IS staff quit their jobs after the project. The company’s stock price lost more than two-thirds of its value during the period. The reason for the failure, as stated by a consultant for Close Call, was because they attempted too many technology projects at the same time, a case of biting off more than they could chew. The lesson, in this case, is to set realistic expectations of IT implementations. A cross-functional team might provide a more balanced outlook and serve to temper expectations.

Management Support

Top management’s support is critical for projects to be successful. However, in large organizations spread across the globe, it is easy to lose sight of this factor. CIO reports the case of a company that lost 50% of its market capitalization due to top management’s failure to implement a global information technology strategy. The failure cost the company approximately $500 million dollars at a time when most established companies were demonstrating strong gains on Wall Street. The company was a market leader in the industrial services business, with

offices in almost all developed countries. There were several IT issues that were the cause for a lot of agony and that also affected the bottom line. First, customer queries on order status took several days to respond compared to only a few minutes the competition needed to accomplish the same task. Second, orders from a single customer with locations in different countries were processed by separate systems. This created unnecessary redundancies and made it difficult to provide an integrated statement to the customer. Finally, pricing was extremely complex. Often, a service that was customized was far less profitable than expected.

A globally accessible, up-to-date information system was planned that would replace the legacy systems that were the cause of the company's problems. Despite the development of a detailed plan to address these problems, there was no buy-in from executives in the various divisions across the globe. The lesson learned is one that we emphasize later in the book as well: top management support and buy-in can often be the critical difference between successful IT implementations and the others.

Explicit Payoff Metrics

Many IT implementations are decided on the intuition of top management. While intuition and "gut feeling" are managers' best friends, they have to be backed by objective analyses and metrics if the project is to be a success. In the example of the telemarketing and catalog sales company called Close Call (discussed previously), another crucial mistake was the lack of clear objectives during prelaunch of the data warehousing system. Explicitly outlined objectives serve two vital functions. First, they help in the development of feasibility studies to ascertain the realistic costs and benefits from the implementation. As discussed above, many times the cause for IT failure is unrealistic expectations. This step will lend some objectivity to this process and thereby temper overly optimistic (or even pessimistic) viewpoints. Second, the establishment of prelaunch
metrics will help identify the contingencies involved, as well as aid in getting the “buy-in” from different groups. Another good practice might be to do an iterative rollout. That is, specify that partial functionality will be provided by a certain date, followed by additional functionality at a later date, and so on.

**Infrastructure**

Technology strategy failures can be either management failures or technology failures. Mail Boxes Etc. (MBE) exemplifies the case of grand strategy but the failure of technology. MBE launched an Internet-based shipping system called iShip that was the brainchild of MBE President and CEO Jim H. Amos, Jr. The aim was to position MBE as the preferred shipping partner for e-tailers. The infrastructure comprised building a satellite network to connect the 3,500 domestic franchises with corporate systems, an Internet-based point-of-sale system and the iShip manifest system. The system would only require the phone number of returning customers and would be able to recall all the customer information, including recipient information. This, it was hoped, would make the customer feel very special and make life easier for the customer by not requiring address information during repeat visits. While it was a well-intended technology strategy, the infrastructure did not work as planned. Connections to the remote computer system were very difficult to establish and, even when successful, were very slow. Part of the problem was that the satellite hookup was slow even compared to cable modem technology. Indeed, many MBE franchisers went back to a decade-old DOS-based system to enter orders rather than the Internet-based iShip system.

Another illustrative example is that of Furniture.com, whose executives promised shoppers 24-hour browsing as well as a six- to eight-week delivery time on everything from table

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lamps to 10-piece bedroom ensembles. The first part of the plan went very well—that of attracting more customers. The site attracted about 1 million users a month. However, while executives of Furniture.com built its brand name at an astonishing pace, they neglected to create the infrastructure to support it. Customer complaints filed with the Better Business Bureau in Worcester, Massachusetts, jumped from 1 in 1999 to 149 in 2000. Most complaints were delivery problems, followed by product quality and bill disputes. Why did this happen? The company did not create an appropriate infrastructure that would factor in the logistics and costs of shipping such a bulky commodity across the country. Besides, they did not have a platform that would track the orders. The company closed its doors on November 6, 2000, and filed for bankruptcy. The company was done in by promises to customers that its infrastructure could not allow it to keep, such as the six- to eight-week shipping time, free delivery, free returns, and so on. According to David Pyke, Professor at Dartmouth's Amos Tuck School of Business Administration, while free shipping and returns, low prices, and lots of variety could make customers happy if the promises were fulfilled, the company could not make money like that.

Are You Ready for Integration?

“If you’re not careful, the dream of information integration can turn into a nightmare.”

—THOMAS H. DAVENPORT

The promise of many recent technology implementations is that of a unified front, a single data warehouse, information integration—all phrases to suggest that life will be a lot simpler through integration. In fact, at the heart of every enterprise

resource planning system is the notion of integrating the various functions within an organization.

If integration comes with all the touted benefits, then where is the danger in integration? Integration comes at a cost. By costs, we don’t just mean financial costs. In ERP implementations, these might be the costs of not having a certain kind of customization that we were used to. These might be the costs of having the business be dictated by the logic of an overarching integrated ERP system. These might be the costs of certain local systems not being able to talk to the centrally integrated system.

Industry analysts claim Hershey’s experience with ERP is a classic example of the problems associated with integration of various packages. Hershey implemented a wide-ranging array of SAP AGs ERP modules simultaneously with companion packages. These included a planning and scheduling package developed by Manugistics as well as a pricing promotions package developed by Siebel Systems. The challenge was to integrate the three disparate systems seamlessly. That’s no easy task, by any measure. The integrated system was implemented in July 1999, when retailers began ordering for back-to-school and Halloween sales. While Hershey’s plants continued to churn out Kisses and candy bars, the inventories were piling up in the warehouses instead of on store shelves. Product inventories were up by 29% compared to previous year’s levels due to order processing problems arising from the implementation of the new system. By mid-September the company said that the new system was causing delays in shipments and deliveries of incomplete orders. By November, Hershey announced a 19% drop in third-quarter profits when CEO Kenneth Wolfe said that system fixes were taking longer than expected and requiring more extensive changes. Eventually, after a series of fixes to the ERP system as well as a revamped distribution facility, Hershey made sure that the problem did not recur the next year.

Training

Training is often treated as a stepchild of an information system implementation process. “It is surprising that companies spend millions of dollars on hardware and software, but assume that the system will work by itself,” says Dave Piotrowski, an executive with an e-business company. They assume that if the system is implemented well, the users will learn how to use it. On the contrary, many systems that fail within a few weeks of implementation do so because few people know how to use it. Organizations should identify users, schedule trainers, determine location, and conduct training as part of the project plan. Training should utilize actual data and business scenarios and coincide with users’ ability to put training into practice immediately upon returning to their jobs. Organizations should utilize consulting resources for training and knowledge transfer. Often, outside consultants depart after a “successful” implementation and leave the system to the users who are not equipped to carry out daily business activities using the new system, let alone troubleshoot any problems that might arise.

In this chapter, we have outlined what we believe are “critical” contributors for many IT implementation failures and juxtaposed them with examples of businesses that we have observed in the last 2 years that were exposed to these factors. At this point, it may also be useful to rethink the implicit assumptions of the productivity paradox debate. What about those cases in which there is no financial payoff from IT? Are we right in labeling these as failures? The IT investment objectives of a firm can be defensive, such as to protect market share or to avoid legal exposure. For example, the recent reductions in revenue in the healthcare industry have brought significant new investment in IT. Given the competitive marketplace and shrinking reimbursement for services, many healthcare organizations will consider IT payoff as positive if their losses are curtailed. We see a similar challenge to reach a financial break-even point in the U.S. steel industry due to falling prices in the world market and not necessarily due to any
failure of technology. Similarly, technology investment as protection from a potential loss can also lead to an ostensible lack of IT payoff. A recent example of IT investment for legal protection is the Year 2000 (Y2K) project. The Y2K investment added very little to the firms’ competitiveness but protected them from potential legal exposure. There is also evidence that IT may not always lead to improved profitability, rather, it may manifest itself in improved efficiency or consumer value.⁹

Therefore, many situations on the surface might appear to lack payoff, however, by delving deeper we may realize that the payoff was in another area, or maybe just the fact that the business survived while much of the competition fell on the wayside. Also, on many occasions, there might not have been a benefit to the organization but benefits may have been passed on to the customer. These are all cases where really there was a payoff from IT.