

## Why do new technology projects fail?

Why is it that one organization is able to go live with an e-procurement application in six weeks, while another similar organization has taken a year and is going live without adequate testing? How is it that a construction company is able to derive benefits from wireless technology on a bigger scale than many organizations in more tech-savvy industries? Why is it that one organization is able to rollout mobile CRM (Customer Relationship Management) software to its sales force within two quarters, while another similar organization is unable to do it even after two years and two failed attempts? What causes new technology projects to fail?

Is it so complex that you have to fail a few times before succeeding? Having been involved in both successful projects and projects that crashed, I can say that a new technology often fails to meet desired expectations for one of two key reasons: it was purchased without a clear understanding of the business problems it would address, or it required a level of pre-requisite set up that the organization did not have. Either way, you have an investment that has to be recovered, and an experience that has damaged your impression of new technologies. And hiring a prominent consulting company does not guarantee success.

Recent studies of Information Technology projects have found that about 30% projects fail (canceled before completion or never implemented), 50% are challenged (completed, but over budget, delayed, or with lesser functionality than planned), and only 20% succeed (completed in time and budget, with the functionality planned).

What happens to failed projects that fail to earn a good return on investment? Some companies just abandon new systems when implementation

difficulties and costs exceed expectations. Others downsize the project scope, taking a piecemeal approach, automating only parts of business processes. And some realize they did not invest in the right areas or invested too early in systems that competitors could easily copy.

Most organizations understand at a conceptual level that economic growth is driven by new technologies and its applications, but the ground-level action to select and deploy new technologies varies widely, with the results varying from shining success to utter failure. This is a long-standing trend, as we will see in this chapter with examples ranging from 1960s to today.

Knowing about failures is more difficult than knowing about successes. It could be steps missed in regulatory compliance, customer systems going wrong, anything to bring down your profits and image. Few organizations share it out, and I appreciate those who do it. While no one enjoys being associated with a failing project, understanding failure is as an essential part of planning for success.

Before we dive into looking at different examples of failures, let's see what organizations are trying to achieve with new technologies. On the whole, the intent is to manage operations better. This is a combination of combination of strategies, technologies and processes to electronically coordinate internal and external business processes, and manage enterprise-wide resources.

Take the example of Information Technology - some of the typical applications that organizations have been deploying are Enterprise Resource Planning (ERP), Supply Chain Management (SCM), Customer Relationship Management (CRM),

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Business Intelligence (BI), Sales Force Automation (SFA). But how well are organizations using their existing IT applications? According to recent estimates of big companies using ERP (revenue of \$500 MUSD or more), about 30% have a single instance, 40% are trying to get there, and the remaining 35% are trying to at least get their instances down to one per major global region—and spending hundreds of millions of dollars to do so.

Leveraging a new technology is about making decisions – it's often whether you want to stick with a tested solution that will deliver x, or with a newer solution that can potentially deliver 2x.

Here is a situation, some variant of which is playing out in every business, including yours. Consider TowerBank, a mid-size bank that must add new self-service features over the next two quarters to attract customers and meet growth projections committed to shareholders. Put yourself in the shoes of the bank's IT director, reporting both the COO and the CFO. You have an existing in-house application (A) that can't do it all – while it can provide 50% of the desired functionality, the rest will have to come from add-ons from niche software in the field of content management and voice recognition. Your IT staff is well versed with application A, and can probably orchestrate this integration of add-ons. Some are even saying they can custom-write the new functionality in-house. You have heard about the capabilities of the niche software from your peers, but haven't seen it yourself. To add to this decision challenge, a package application (B) is available, which is supposed to meet 95% of your requirements off the shelf.

To arrive at a decision, many details have to be considered: the data centers holding customer information, the dozens of customer apps using this data- ATMs, teller apps, call centers, etc. Where do you start your assessment? Is it feasible to even consider a new application if the timelines are tight, or is it the only way out? There is no right answer. But what is required for sure is a tight process to evaluate options rapidly and communicate the decision to the management, in order to provide the new self-service features to the bank's customers.

If you're not failing now and then, you're playing it too safe. Being too safe is the goal when designing life-critical devices, typically in civil, automotive, medical, and aeronautical projects. But for projects like banking data analytics, manufacturing workflow systems, an over-designed product is often costly, and will suffer performance disadvantages due to sub-optimal design tradeoffs. So knowing where the edge of failure is, and moving closer to it within a safe gap, is necessary to get competitive advantage from your new technology investments.