

Information Technology in Business: The Big Picture

Computers and information systems are essential parts of every business today. Like accounting and legal, every business needs to invest in technology to compete. Technology is both a cost of doing business, and an opportunity to do more business. Most people I talk with recognize the necessity of having a computer, an email address, and a web site, but still look at the upfront cost more than other issues.

After spending some time working with dozens of businesses, I think it's time to take a step back and look at the big picture of technology in business. Let's take a reporter's view of the topic, and ask the basic questions: who, what, where, why, when, and how much?

For today, we'll keep this short, but each of these questions deserves a more complete article in the future.

Why?

What are the benefits of technology for a business? There are many, but most fall under a few categories:

- Reach more potential customers, develop a business relationship with potential customers
- Streamline operations, reduce costs, improve efficiency, maximize profit, minimize waste, devote talent to core business instead of overhead
- Provide better service to customers
- Support better relationships with key partners
- Allow customers to better guide the business

The very first question businesses should ask before spending any money or time on technology is, “why am I doing this?” If there is not a core business benefit to be gained, why do it in the first place?

How Much?

Established businesses outside the technology industry typically spend between ½ percent and 10 percent of their annual revenue on technology spending, depending mostly on the industry. Manufacturing and retail are typically at the low end of this range, while finance and health care are typically at the high end.

If you're at the low end of technology spending for your industry, you may be missing out on some key benefits technology can provide. If you're at the high end, you may be spending more than you need to on proprietary solutions, or you may be leading your industry with some strategic investment.

What?

What costs do you need to consider as part of your technology budget? These break down into several categories:

- Initial cost—hardware and software, and training
- Ongoing cost—maintaining systems, including licenses for proprietary software, hosting, and support
- Upgrade cost—cost of upgrades, and expected lifespan of systems/frequency of upgrades

- Value proposition—how much employee time will the system save? How much new business could the system generate?
- Opportunity cost—how much potential revenue is lost by not implementing a system? What are your competitors doing in this area?
- Risk—what are the risks of a particular system? What does it cost to mitigate those risks?

Where?

Should you spend most of your technology budget on infrastructure, hosted applications, custom line-of-business applications, or what? The answer to this depends a lot on your industry, but even more on your specific business. Generally, most businesses spend around half of their technology budget on infrastructure—computers, networking equipment, and Internet Service Providers (ISPs). As the world moves more and more online, and open source software becomes more compelling, there are huge opportunities for savings in these areas, for businesses that can take advantage of them.

When?

There's a fine line between too much and not enough. Spend too much on technology, and it will consume your time and budget, leaving you ill prepared to do anything else on your business. Spend too little and your competition may improve their business to the point that you can't compete.

You need to implement enough technology to see a real benefit, prevent the worst disasters, and not miss out on any major opportunities, while not spending more than you can handle.

Technology has a cost not just in dollars, but also in the time you and your employees need to spend adapting to it. Bite off too big a chunk and technology becomes counter-productive. Nearly always, small, incremental, ongoing chunks are a better way to bring technology into your business than large all-or-nothing systems that promise to do everything right away.

Who?

Finally, you need to decide who to help you implement technology in your business. Will you do it yourself? Do you purchase an off-the shelf product? Do you use free software? Do you hire a programmer to create a custom system? Do you use a hosted system? Do you hire a consultant to help?

Obviously, as an open source consultant, I think the answer is usually hire a good consultant to help you use as much quality free software in your business as possible. Whether or not to use a hosted system depends on your specific business needs. Off-the-shelf proprietary products are quickly becoming the least favorable way to go, but there are still a few niches where there isn't a viable alternative.

Many businesses are stuck at a tactical level, trying to stay ahead on cash flow and payroll, and don't have time to think about technology in a strategic way. But a strong plan for technology should be a part of every business plan, and re-evaluated whenever taking a strategic look at a business.

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