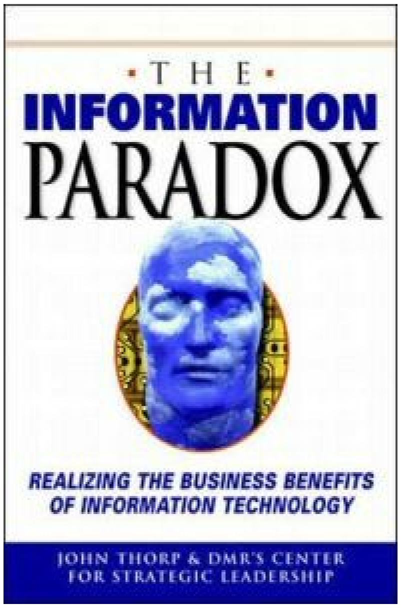

Book The Information Paradox

Realizing the Business Benefits of Information Technology

John Thorp
McGraw-Hill, 1996

Recommendation

John Thorp's book recalls Mark Twain's definition of a classic as "a book you want to have read but don't want to read." If you're an executive with control over your company's information technology purse stings, you probably don't want to read a book this detailed in the intricacies of IT, which is exactly the reason that you should. Thorp's initial premise is that many IT investments never pan out in part because the people that are signing off on them have absolutely no idea what to expect. This book will give you a clue, but don't expect to enjoy it. It's dense with IT terminology, change and program management strategies and valuation techniques. *BooksInShort* recommends this book to all of you professionals who know that you need a better understanding of information technology, even if you won't admit it. Don't put off reading this book, no matter how much you'd like to.

Take-Aways

- The executives who make most information technology (IT) investments have no idea of the expected return and no means of measuring it.
- A few organizations succeed at implementing IT changes, but most have only sporadic success with vital information initiatives.
- Any IT investment should be part of a portfolio of change initiatives.
- Most failed IT investments were quick fixes, not part of an overall strategy.
- Only make IT changes after considering cross-functional linkages between all aspects of your organization.
- Use a benefits realization approach to determine what your organization needs and how an IT initiative can help.
- Have a senior management executive sponsor this initiative.
- For success, determine who will take ownership and accountability.
- Consider the people factor. Communicate with everyone who will be affected.
- View the IT initiative as part of an ongoing strategy to position your organization.

Summary

Why Can't I Get Any Information From My IT Department?

Investment in information technology today far outpaces anything in modern business history, and the transformation of business by information technology is only beginning. But although IT expenditures have grown 20% to 30% per year for the last 20 years, economists remain divided about the degree to which this has enhanced productivity.

> "In the business world, a cluster of computer and telecommunications technologies is playing much the same role that the steam engine, railways and new factory modes of production did in the nineteenth century."

However, the information paradox referred to in the title of this book isn't the fact that you can never get information from your IT department. Rather, it's that most investments in information technology are made by executives who don't have any idea what kind of returns they can expect to receive. This paradox is related to Pareto's Law, which states that 80% of productivity returns come from 20% of all IT investments. If expenditure on information technology was more accurately aligned with functional need, every organization would get a lot more for its IT dollar. Management's dilemma is determining how to invest efficiently in IT development. The simple solution: Verify the value of new information technologies prior to buying them.

Silver-Bullet Thinking

Thinking that IT is the answer to all your business problems is silver-bullet thinking that has led to many disappointments in IT investments. Information technology alone cannot deliver consistent results. Customized solutions only work if they meet your organization's needs, and if people are trained to use them. Investing in IT is not just selecting specific hardware or software. Rather, your organization should invest in the process of change itself.

Management Blind Spots

Once you realize that the real purpose of your IT program is to transform your business, the key factors become clear. The traditional management outlook has four blind spots:

- Linkage - This means understanding the connection between the IT investment and additional investments and initiatives in other areas of your business, which combine to achieve the desired benefit. IT cannot do it alone. If you understand the linkage with other aspects of your business, you can match expectations with results more realistically. IT must be integrated with your overall business strategy and with other initiatives.
- Reach - Questions about reach include, 'How deeply will your organization be affected by the change in IT structure?' and 'How disruptive and challenging will the change be?' These questions apply to the breadth of change an IT investment requires. Answering them requires a comprehensive view of your organization and how it manages change.
- The people factor - Your IT initiative will change the work lives of a number of people who must be inspired to change. Many businesses overlook the process of preparing their people for this transformation of their business.
- Time - Determining realistic timeframes can be difficult. Ask early and often how much time will be needed to accomplish the IT initiative? People need time to make changes; take that into account to avoid unexpected time lags and internal resistance.

The Benefits Realization Approach

Maximize your gain and minimize your risk in an IT investment by using the benefits realization approach. With this, you achieve two interrelated changes: a change in the IT mind-set and a change in management methods. This new mind-set tries to integrate technology into the overall business more effectively and to replace silver-bullet thinking. Management accepts the fact IT cannot succeed alone, no matter how powerful it is. IT must be integrated with your organization's other goals and strategies. The three fundamentals that define the essence of benefits realization are:

1. Program management - Shift from an isolated IT project-management approach to business program management. Projects are specific tasks, while programs are groupings of projects designed to achieve a defined benefit. The IT project should become part of a blended investment program that considers other projects as well.

2. Portfolio management - Focus on disciplined portfolio management and away from rivalry among projects. Portfolios are groups of investment programs managed to achieve specific results and a defined stream of benefits.
3. Full-cycle governance - Shift from traditional project management time periods to full-cycle governance, which continues over the course of a full cycle of innovation. Your organization should monitor and measure the implementation of programs over an entire innovation cycle, including installation, training and user feedback.

   "The commonsense observation, confirmed by experts looking at the Information Paradox, is that buying expensive IT tools will not make you more productive unless you know how to apply them."

In addition, three other conditions are necessary:

1. Activist accountability - Identify business sponsors who have a continuous ownership interest in the new program. Ownership of the innovation must cross the firewall that tends to exist between business and IT.
2. Relevant measurement - When you measure the success of your IT initiative, focus your measurements on key desired results, and link the IT investment to those results.
3. Proactive change management - Design your management strategy to involve people in the change process and give them an ownership stake. It isn't enough to install new hardware. You must also ensure that people think and behave differently. Management must convey that people can influence the course of change, in return for their active participation in making the new program a success.

Designing and Managing Programs

Your IT effort is a program, not a project. It's part of a larger strategy for change that encompasses your entire business. You can use eight practical steps to design and implement a major blended IT program that takes into account all aspects of your organization:

1. Define benefits and linkages - The more clearly you can identify the effect you desire, in measurable terms, the greater your chance of achieving it. Assess the affect upon other departments and functions in your organization.
2. Definition of program scale - Go beyond IT and include all activities, all projects and all initiatives necessary to generate the desired benefits. This will help you create a well-rounded program rather than a traditional project.
3. Map the benefits realization - Chart the chain of people and actions needed to create the desired results. This chain should take into account the business, the technology, the organization, the process and the people (BTOPP). This is your roadmap to the results you want.
4. Design the program - Select the best path. You will face strategic trade-offs here, so be prepared to make challenging choices.
5. Define accountabilities - Determine activist accountability. Senior business sponsors must take ownership of the program, and accept clear accountability for delivering benefits. Implement this as a way to achieve success, not as a way to assess blame.
6. Think people - Putting aside all the technological ramifications, consider how the program will affect your employees. Change management must be part of your plan.
7. Time accounting - Do not assume benefits will be immediate. This is not a quick fix. Instead, aim for a stream of benefits, occurring over time, as people learn the system.
8. Prepare for risk - Consider the factors that are not under your control, and realize that some of them will come into play. Monitor them carefully. Make sure the risks are clearly spelled out for everyone.

Three Management Pitfalls

Your management team can run into trouble at three (well, at least three) blind spots. Watch for these road hazards:

1. The quick-fix solution - Treating your IT selection as a one-time event is a big mistake. The changing business environment will require adjustments as you build your IT infrastructure. Make sure everyone understands that this ongoing process is subject to change.
2. Isolated selections - IT projects are part of a larger whole. Looking at just the IT solution is short sighted and doomed to shortcomings. Even when you broaden your thinking to conceive of an investment program rather than a project, the tendency is to look at each program in isolation. View IT as part of an integrated whole.
3. Consider all aspects of value - When assessing the value you expect your IT investment to return, go beyond simple financial

measures and account for all prospective values. One value is that your new system better prepares you for future changes.

Relevant Measurement

The benefits realization approach depends on relevant measures of performance. But measuring the value of IT investments is notoriously difficult. Its effects are so pervasive that they influence the productivity of many different aspects of an organization, and therefore, the return on the investment is difficult to track. Existing measurement systems tend to have four blind spots: overload of financial data, imprecise measurements, measurements that don't assess results, and data that doesn't demonstrate the benefits of IT.

1. Financial data overload - Financial systems produce too much information that is difficult to use. It is not presented in a way that suggests a corrective action.
2. Operational measurements - These produce data on core functions such as manufacturing, but the data is often difficult to use in demonstrating the benefits of a given investment. The benefits realization approach often encounters the same measurement problems that affect quality management.
3. Project management systems - These measurements of costs and of project inputs and constraints do not assess outcomes and benefits.
4. Human resources and marketing information systems - Again, the data these generate do not tie into the benefits structure that demonstrates the value of an IT investment.

> "The linkage and reach of both program and portfolio management are quite broad, requiring the cooperation of cross-functional management groups. All this leads to one simple conclusion: You need support from the top of your organization."

The dilemma is that benefits realization and full-cycle governance are essentially cross functional. IT investments are powerful exactly because they cut across every facet of the business, and to that extent they are partially accounted for in every separate measure of corporate performance. No single measure quantifies IT's contribution. The solution is to design a new measurement system, making sure that the correct measures exist, and that they assess the correct things in the correct way. Such objective measurement systems should direct the organization's decisions and actions.

Fighting Change

When management implements your new IT program, some resistance is likely, unless you proactively introduce change to your organization. Evaluate the reach of change in your organization. Be aware of how deeply this will affect the company and of how many operations you will have to adjust. Understanding the full implications enables you to then consider its effect on people as well. People issues will not handle themselves. When confronted by change, people often react as they would if grieving: denial, anger, guilt, acceptance and finally, moving forward. It is a mistake to dismiss this reaction. The key is to effectively communicate with those who will be touched by the changes that lie ahead. It may help also to establish a reward system based on achieving steps along the path to change. By taking proper account of the human element necessary to implement change, you improve your chances of realizing an excellent return on your IT investment.

About the Author

John Thorp is vice president of the DMR Consulting Group's Strategic Consulting Practice. He is a management consultant and frequent speaker with more than 35 years of IT experience. DMR is a leading provider of IT services to businesses and other organizations. Thorp lives in Victoria, B.C., Canada.