

Key Project Decisions

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Many companies today are using technology to help gain a competitive advantage, or simplify what would otherwise be a manual and time consuming process. This movement has left more than a few companies less than satisfied with either the technology chosen, the consultants hired to perform the work, or both. No matter what the primary cause of the dissatisfaction, there are a number of considerations that must be addressed to ensure your company's next project is a success. This paper provides some essential questions that should be addressed in order to make the right decisions when moving forward in any technical project.

The first step in any project is to determine the primary business objective. Without a clear understanding of what is to be accomplished, there will be no accurate way to assess whether the project is a success. These objectives should provide real value to the company so that a meaningful *Return on Investment* (ROI) can be calculated. At some point in time you will need to answer that the project is worth the time, effort, and money being put into it. In many cases there may be a number of smaller projects that need to be implemented to implement a strategic business initiative. If this is the case, it may be necessary to fully understand the strategic business initiative to assess the true business objective of the project.

Once the business objectives have been clearly defined and documented, the process of gathering the requirements must begin. These requirements will help define the project scope and will be used to determine what technologies would be appropriate. Far too many companies jump to the conclusion that a particular technology will solve their problems, when in fact simply implementing a technology will not necessarily achieve the required business objective, unless the business objective is too granular. For a given technology to solve a company's problems, it must be implemented with a specific purpose and set of instructions to address the business needs. The purpose is the business objective and the instructions are the requirements.

When looking at the system requirements, it is essential to look at the business processes that will be affected. The processes should be well understood prior to the start of any design work. If the processes are ineffective and/or inefficient, they may need to be reworked prior to any introduction of new technology. If the current processes don't work correctly, applying technology will not fix them. One of the key signs of problems is when processes are not well understood, are not well documented, or simply do not produce consistent results.

With the objectives, requirements, and processes well understood and documented the design of the system may begin. At this point there will be a decision as to what technology would best be suited for the system. The following paragraphs provide some critical questions that must be considered when selecting a new technology.

1. Is your company able to effectively articulate their business in technology terms?

If you are not able to describe exactly what you need from a technology provider in terms that explain the problem you are trying to solve, it is not likely they will be able to provide an appropriate solution without walking through the business objectives, requirements, and process definition steps with you first. Some vendors only provide product, while other vendors provide only consulting, and still others provide both. You will need to decide if you have the technical resources to do the work, or will you need to hire consultants to either help guide you or do the entire project.

2. Does the new technology integrate easily with the current infrastructure?

If your company is looking to invest in a new technology, you must determine how it will integrate with the existing technologies already in use. Adding a new technology that is unable to share information with other applications is generally not a very good idea since this causes an island of information that may need to be addressed. It's also important to keep in mind that every technology carries with it the issues of maintenance, user support, license costs, upgrades that may have new functionality and new interfaces, patch releases for defect correction, and vendor support such as a 24 hour help desk. Every one of these considerations influences the decision in both financial and technical terms. The key questions are how dependent can your company afford to be on the technology, the vendor who provided it, and how much responsibility and cost can your company assume ?

3. Is your company ready to implement a new technology?

Implementing a new technology to solve a problem is sometimes like the tip of the iceberg. If the technology solves one problem it may only serve to uncover other problems if the entire business process is not studied and understood prior to implementation. For example, if technology solves problems in your order management process, it may highlight inefficiencies in order fulfillment. Just as there can be islands of information if the technology does not integrate with the existing technologies, there can be islands of efficiencies that may need to be addressed as well.

4. What role will technology play in your company?

When deciding on a new technology, the role it will play within the company is a question of business strategy. Is the technology going to help automate processes to allow greater throughput or reduce staff? Will the new technology bring new services and capabilities to the company? Will it provide business intelligence to company executive to help make better strategic decisions? The answers to all of these questions will determine the project scope and penetration that technology will have. It will also provide a clearer understanding as to the complexity of the system and define many of the requirements. It will also indicate whether the system is an off-the-shelf solution or custom built.

5. Will technology reflect how the work gets done ?

This question addresses the relationship of efficiency and effectiveness. If your business is looking to move a current paper-based process to their Intranet, the question as to the ROI of the solution must be studied. The current process may be a simple one-step, fill out this form process, whereas the automated solution may require multiple steps to process the same data. While the new process may be more steps, the value of having the data from the form in a database may provide other benefits to the company such as business intelligence, thus providing the justified ROI. In a case such as this the efficiency may seem to be reduced to increase the effectiveness. But since the paper based process did not provide the business intelligence information, the new process actually added functionality.

6. Is your company willing to change processes to implement a new technology?

There are many great technologies available on the market that performs great for a specific segment of industry. For example, there are a number of Enterprise Resource Planning (ERP) systems such as SAP and PeopleSoft. Each of these products offers a wide range of modules to support different business processes. However, processes differ from industry to industry, and so some products are better suited to specific industries. Even then, these products support a particular business process, which may or may not be the same as your company's process. While you may be able to customize the application, you may have to do it each time a new product release is installed. If extensive customizations are done, the update process becomes more and more of a challenge. In some cases with off-the-shelf products, it may be better to conform to the defined process rather than attempt to modify it. This can likely save you money if the alternative is a custom system. If you are not able or ready to alter processes, the technology solution may be too complex and costly to justify.

7. Will the technology scale with your company and business?

In order to meet the growing demands of business it is not sufficient to simply meet the current demands on the system. Business is always adapting to change, whether in inventory levels, sales from month to month, customer demand, or new products. If the system you put in place today can not support change, it is a short sighted solution that will likely be replaced within the next few years. The common mistake is to look at the current business constraints and apply technology to solve current problems with little or no thought as to what the future holds. This results in a technology solution that is limited and may not be capable of growing with the changing demands of the business. When evaluating new technologies it is important to look at the technology trends as well as the business trends to determine the best solution for today and the anticipated problems of tomorrow.

8. What type of ROI does your company expect and when do you expect it?

There is no denying that technology cost money. It costs money to buy it, develop it, support it, and to try to keep up with the changes. If there is not a compelling reason for a company to invest in a given technology, then it is important to go through the options to see if a more cost effective solution may be found. It is important to focus on what is *needed* more than what is *wanted*. If the ROI calculation is not what it needs to be or if it is difficult to calculate, then it is likely the business need has not been clearly defined.

If you are looking to invest in technology for your business, it is best to have a clear understanding of the challenges to expect. By working through the business objectives, requirements, and process steps outlined earlier, the scope of the problem is better defined. As the business questions are evaluated, the range of technical solutions should be narrowed sufficiently to enable you to make a well informed decision as to what the right technology should be and how to make the project a success.

About the Author

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