Chapter 14
Managing Projects

Section 14.2, "What methods can be used for selecting and evaluating information systems projects and aligning them with the firm's business goals?"

"Gee, we thought we did everything by the book. Why doesn't the system work the way we envisioned?" Perhaps it's not the system itself but the way changes in the organization were managed. This section will help you better prepare for the hardest part of building information systems—managing the development and implementation of the system and the people it will affect.

Throughout the textbook, the author's have stressed that information systems are sociotechnical and part of the organization. Think about it, a new information system changes the way the organization operates. Successful organizations choose to change their structure and operations over time. When I was at Staples, I had 7 different managers in 5 years and I have over 100 different associates under me in those years.

Organizations choose information systems designed to mirror organizational changes. New systems can change organizational political arrangements and power relationships. The information systems plan is the first step to link the business plan to information systems. The information systems plan helps an organization answer the following questions: What do we need to do? Who needs the information? Who creates it? How can we create a system that will change our strategy or even the business we are in?

Management Structure for Information Systems Projects

To help ensure success, companies should have four levels of management control for system projects:

- **Corporate strategic planning group:** develops strategic plans.
- **Information systems steering committee:** includes department heads that represent end users and information systems departments; reviews and approves systems plans, coordinates and integrate systems, selects specific projects.
- **Project management:** information systems managers and end-user managers; oversees specific information systems projects.

- **Project team:** directly responsible for individual system projects; consists of systems analysts, end-user business specialists, application programmers, and database specialists.

As you review the list above, one thing you should notice in particular is that there are business specialists and end-user involvement in every level of management. Too many companies fail to include nontechies in systems planning and management, much to their dismay later on.

Figure 14-2 below, illustrates what management levels the four main groups are at.

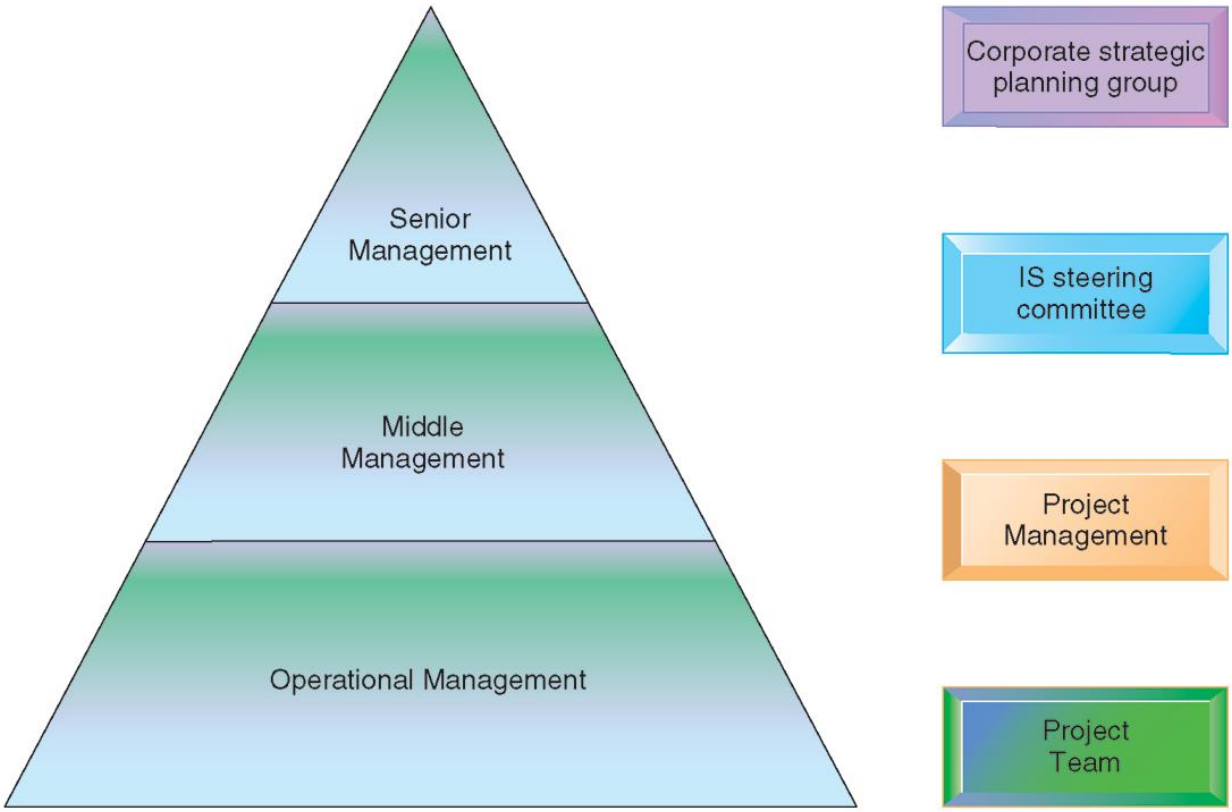

Figure 14-2: Each level of management in the hierarchy is responsible for specific aspects of systems projects, and this structure helps give priority to the most important systems projects for the organization.

Linking Information Systems to the Business Plan

Companies buy the hardware they think is necessary for a new or improved information system. Then they purchase some software to go along with the new hardware. Now they realize their hardware is inadequate for the new

software, so they buy more powerful hardware. And the vicious circle continues. Pretty soon they have a whole bunch of hardware and a lot of expensive software, but do they have an information system? Only if they have made sure all the hardware and software purchases fit in with their organizational information systems plan and their people know how to use them.

"A what?" you say. "Another plan that stifles creativity and creates roadblocks to getting work done?" No, a *good* information plan will help companies systematically figure out what they need to get the job done and whether all the hardware and software is necessary and if they really do meet the requirements of the organization. A good information plan will also take personnel needs into account and help determine how all three elements of the triangle will work together for success.

The problem is that too many companies don't have a plan for integrating new hardware and software purchases into their overall business plan, let alone meshing them with the persware side of the triangle.

Of course, the information plan should support the overall business plan and not conflict with it. The plan must include all levels of the organization, including the strategic and executive levels. These two levels include the people who often say they are exempt from having to determine information system needs.

Information Requirements and Key Performance Indicators

Key performance indicators (KPIs) are simply the goals managers feel will make the organization a success. Using this method broadens the scope of the analysis to include entire industries, the broader environment, in addition to the firm itself and its managers. That's why it's also called a "strategic analysis." Basically, you contact several top managers, ask them what they think will make the organization succeed, and then combine the results into a cohesive picture.

Portfolio Analysis

Figure 14.3 below illustrates the priorities a firm should give to information systems with different levels of risk and benefit. The only projects to avoid are high-risk, low-benefit projects. The emphasis given to any of the other three categories depends upon the individual firm.

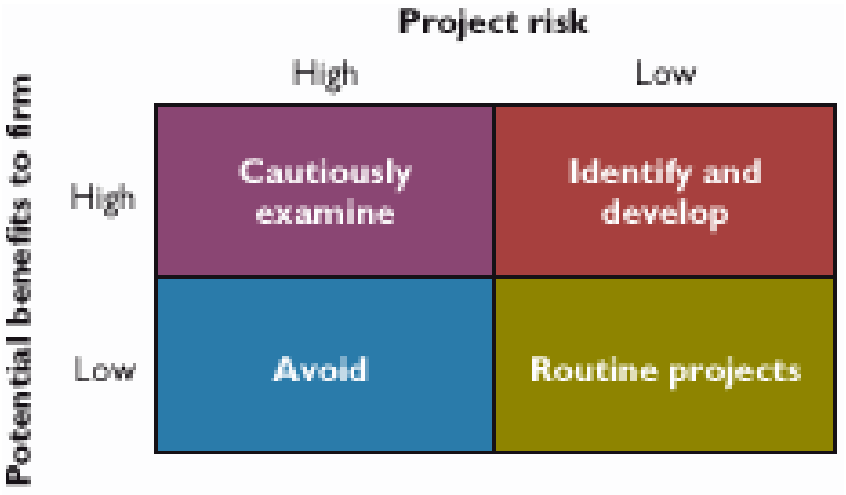

Figure 14.3: A System Portfolio -Companies should examine their portfolio of projects in terms of potential benefits and likely risks. Certain kinds of projects should be avoided altogether and others developed rapidly. There is no ideal mix. Companies in different industries have different profiles.

The portfolio analysis shown in this figure allows a company to objectively rate multiple alternative projects for their risk and potential benefits. Companies too often get locked into just one idea without understanding that multiple choices exist. There is always more than one way to meet the organization's goals.

The ideal situation is to choose a system with the highest benefit and the lowest risk while ignoring systems with the lowest benefit and highest risk. That's reasonable. This method of rating projects helps companies align their IT assets with their business strategy and results in a better organization-wide coordination of IT investments.

Scoring Models

The scoring model is effective for comparing various alternatives in terms of their costs. This model can go a long way toward helping organizations determine the best course of action and quantify their decision making. And, if nothing else, it creates a dialog among the managers about strategic factors they should consider for the good of the firm. As the text states, "Scoring models are used most commonly to confirm, to rationalize, and to support decisions, rather than as the final arbiters of system selection."

For an example, look at Table 14-1 below, it shows a short excerpt of an example scoring model for an ERP project that compares systems from two

different vendors, A and B. What criteria do you think are the most important to the firm? If you look at the "weight" of online order entry and inventory check you would determine these are the most important to the firm. Columns 3 and 5 show the percentage to which each alternative ERP system fulfills the criteria. Each system's score is calculated by multiplying the percentage of requirements met for each function by the weight attached to that function. ERP System B has the highest total score. It is important to understand that qualitative judgments affect the scoring model, so a good practice is to cycle through the scoring model several times, changing the criteria and weights, to see how sensitive the outcome is to reasonable changes in criteria

CRITERIA	WEIGHT	SYSTEM A %	SYSTEM A SCORE	SYSTEM B %	SYSTEM B SCORE
Online order entry	4	67	268	73	292
Customer credit check	3	66	198	59	177
Inventory check	4	72	288	81	324
Warehouse receiving	2	71	142	75	150
ETC					
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Table 14-1: Scoring model for an ERP project comparing two alternatives.

Summary

An appropriate management structure must be established for information systems projects at the senior, middle, and operational management levels.

Information systems plans help link systems projects to the business plan.

Critical success factors, portfolio analysis, and scoring models help organizations choose appropriate IT projects.