

A PRICE Systems Thought Leadership Article

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Aligning IT with Business Objectives – *Maintaining the Connection*

The alignment of business goals with IT project requirements is fundamental to both the immediate success of a project and the long term success of the organization. While IT has become a critical part of business, IT projects still experience problems with meeting expectations. Better alignment between business and IT could solve many of the issues that organizations cite as the cause of these problems.



Overview

Despite the benefits, obstacles exist in aligning business goals with IT objectives. First, organizations view IT as a cost rather than an investment that can create value. Second, organizations emphasize project management and implementation rather than project planning; the Project Management Book of Knowledge plays a role in this priority. Finally, business case analyses lack any robust cost-benefit analysis.

The solution to overcoming these obstacles involves four parts. The parts include: emphasis on business case development; establishment of a robust project budget; the use of cost analysis in change control management; and the implementation of a post-project audit process. This paper will illustrate that cost estimation remains the critical factor in each of these parts.

Better alignment of business goals with IT project requirements bridges the chasm between IT and Operations. The alignment will help shift the focus of IT. It will move from total supporting role into a driver of profitability.

Background

IT has become a critical part of strategic planning, business process, resource, and operations management. In certain industries, equal money is spent on operational technology and the traditional IT budget. The consumerization of IT generates new insight and demands. IT is one of the main drivers of the creation of new business value, new business models and changes in business function¹.

Despite the increased importance of IT, IT projects experience difficulties in meeting expectations. According to a study conducted by the Center for Business Practices, the surveyed companies reported 47% of projects were troubled.² These troubled projects translated into \$30 million dollars (out of \$65 million) at risk failure.³ Factors that contributed to the troubled projects included:

- Expectations were too high or unrealistic
- Requirements were unclear or contradictory
- Poor resource planning
- Planning was based on insufficient data or poor estimates
- Risks were not identified.⁴

These factors share a common characteristic. They all indicate that there has been a failure to carry business alignment through IT project delivery. As a result, project delivery fails to meet desired expectations.

Obstacles

Despite the potential benefits of better alignment between business goals and IT, obstacles to implementation prevent companies with even the highest project management capabilities from maintaining this connectivity through a projects execution and delivery. These obstacles are:

1. Organizations view IT as a cost rather than an investment that can create value.

Benchmarking guru, Howard Rubin elaborates on this point. He states,

“Companies treat IT like a cost and look for outside validation to drive costs down. They really should be looking at the outcome. What should I do with my IT strategy, my IT investment; am I maximizing my return? That’s better from a business perspective. Companies understand that IT produces value. But they view IT as a cost because it’s so much harder to figure out where the value shows up in terms they can get their hands on. They gravitate to what’s tangible, and what’s tangible is the budget item.”⁵

2. Organizations emphasize project management and implementation rather than project planning.

The Project Management Book of Knowledge plays a role in this emphasis. The Project Management Book of Knowledge (PMBOK) focuses on the mechanics of project management. It does not focus on the higher level issue of business alignment. Chapter Four of the PMBOK does discuss the development of the project charter.⁶ The PMBOK mentions benefit measurement methods and business case with Return on Investment (ROI) as tools to create the project charter.⁷ However, it does not discuss how Business Case Analysis fits within Project Charter development or what constitutes Business Case Analysis.

Figure 1 below displays PMBOK's diagram of project charter development; the business case is not displayed as part of the process.

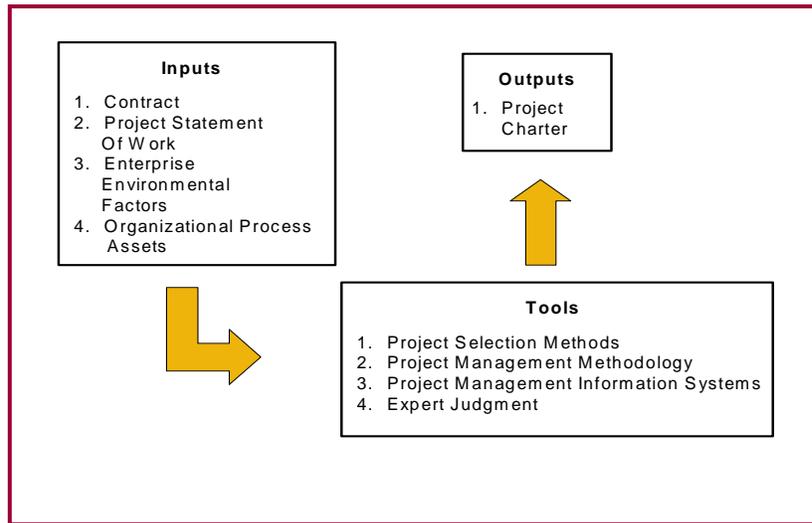


Figure 1: PMBOK Diagram for Project Charter Development

3. Business case analyses lack any robust cost-benefit analysis.

Evidence exists that organizations see a gap in their cost-benefit analysis in their IT processes. As organizations develop competencies for their business analysis, they are including the ability to conduct a financial cost-benefit analysis as a necessary skill.⁸ Organizations have begun assigning cost-benefit analysis as a function of specific project team members.

Solution

The first two obstacles require a paradigm shift in an organization's view of IT and project management. Such a shift can occur by quantifying a successful business alignment in a project. In other words, by focusing on the last obstacle, the first two become much easier to overcome.

Business alignment forces the organization to be vigilant in the initiation, planning, execution and closing of the project. Cost estimation serves as the foundation for any business alignment process.

The following steps will improve business alignment with IT requirements:

Emphasize project planning through thorough business case analysis using a robust cost-benefit analysis.

The alignment should begin during the business case development and analysis process that occurs prior to and during project planning.⁹ During the process, the business objective should be translated into the desired technology capability. Analysts must be able to explain the business goal in terms of the work-breakdown structure or the product-breakdown structure.

The Cost-Benefit Analysis is an important part of the Business Case Development process because it provides a quantifiable evaluation of the project goals. The foundation of the benefit analysis is an

evaluation of what would happen if the project does not occur.¹⁰ Often, benefits of projects can be classified into three broad groups: revenue enhancers (e.g. capture market share), cost savers (e.g. increases productivity) or cost avoiders (e.g. regulatory compliance).

The cost portion of the analysis is part of the cost estimation methodology. Cost estimation is the development of an approximation of the costs of the resources needed to complete project activities.¹¹ The cost estimate includes, but is not limited to, labor, materials, equipment, services, facilities and specials categories such as inflation and reserve allowances.¹²

Hidden costs are not often captured in estimates. These costs are usually activity-based and are considered “overhead.” However, all such costs must be considered in order to fully evaluate if a project should move forward.

Establish a robust budget.

The budget should include cost estimates from the cost-benefit analysis to include activities as well as labor effort. The budget should include these items distributed over time. A detailed budget allows the project manager to make decisions about resource allocation.

Use cost analysis in change control management.

Even the best change control management is challenged from time to time. As changes to the project are considered, their costs should be estimated. As in the cost-benefit analysis, all costs to include overhead should be captured. The new cost-estimates should be compared with the initial cost-benefit analysis to determine the impact of the change.

Establish a process for post-project auditing.

A post-project audit should examine the original business case to determine if the product- or work-breakdown structure actually encapsulated the business goal of the project. The original cost-benefit analysis should be evaluated for accuracy, with emphasis on the cost estimation.

Estimating the cost of the changes being implemented as part of the original project plan versus the estimated cost implementation during project execution is important. “What-if” Scenarios are helpful in this evaluation.

Example¹³

An implementation of commercial-off-the-shelf software (COTS) illustrates the utility of business alignment with an emphasis on cost estimation.

Company A has set the following operational goals:

- Every business unit must improve its productivity
- Any initiative must be cost-neutral within 5 years

The sales department has decided to implement Customer Relationship Management software. This software would eliminate an administrative position that costs the company \$40,000. The software package costs \$20,000 for a license and \$5000 annual service fee. With this data, the business case supports the COTS package.

Table One illustrates the cost-benefit analysis:

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Benefit	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$200,000
Cost w/o Activities included	\$20,000	\$5,000	\$5,000	\$5,000	\$5,000	\$40,000
Net Benefit	\$20,000	\$35,000	\$35,000	\$35,000	\$35,000	\$160,000

Table One: Initial Cost-Benefit Analysis

However, “hidden” costs are not considered. Hidden costs include all activities and their respective cost drivers. These activities include: analysis of software, tailoring the COTS, design, testing and coding of glue code, performance of system level integration and test, maintenance of license fees, maintenance and inclusion of COTS upgrades, and fixing bugs.¹⁴

When these activities are included, the total cost for the COTS implementation increases. Rather than \$20,000, the implementation cost actually is \$95,446.

Table Two shows the new cost-benefit analysis:

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Benefit	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$200,000
Cost with Activities included	\$70,892	\$9,554	\$5,000	\$5,000	\$5,000	\$95,446
Net Benefit	-\$30,892	\$30,446	\$35,000	\$35,000	\$35,000	\$100,446

Table Two: Revised Cost-Benefit Analysis

Company A decides to move forward with the implementation. However, the company creates a project budget to determine costs and utilization over time.

Table Three shows the project budget by resources:

	Year 1	Year 2	Total
Amount for Software	\$20,000	\$5,088	\$25,088
Programmer	\$16,907	\$829	\$17,756
Software Engineering	\$33,911	\$1,625	\$35,536
Test Engineering	\$74	\$1,993	\$2,066
Total	\$70,892	\$9,554	\$80,446

Table Three: Project Budget by Resource

During the implementation, the project determines that ten percent more glue code is necessary. This change would increase the cost to \$107,969 for the implementation. Company A decides to move forward with the change.

Table Four illustrates the effects that the change will have on the project:

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Benefit	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$200,000
Cost with Change included	\$79,138	\$13,831	\$5,000	\$5,000	\$5,000	\$107,969
Net Benefit	-\$39,138	\$26,169	\$35,000	\$35,000	\$35,000	\$92,031

Table Four: Effects of Change

The implementation is completed. Company A decides to assess the project to determine if the increased cost due to the change could have been avoided. Company learns that had Company A had a team with more experience they could have implemented the COTS with the larger amount of glue code for \$86,993.

Table Five illustrates the cost-benefit analysis with the different estimations:

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Benefit	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$200,000
Cost with Audit Findings	\$60,707	\$11,286	\$5,000	\$5,000	\$5,000	\$86,993
Net Benefit	-\$20,707	\$28,714	\$35,000	\$35,000	\$35,000	\$113,007

Table Five: Post-Project Audit Findings

Conclusion

Strong cost estimation is critical to the alignment of business goals with IT. Any cost estimation strategy should be data-driven. It should base estimations of these activities and cost drivers on historical information. This information should originate from internal projects and industry trends.

Alignment of business goals with IT project requirements allows the CIO to be part of the strategic framework of the company. The organization will come to view the IT budget as an investment in the future rather than an immediate expense. The end-state of alignment is an IT profit center.

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End Notes

- ¹ Mahoney, John, Gomolski, Barbara, *Key Issues for Changing Shape of IT*, Gartner, 5 March 2007, p. 2
- ² Center for Business Practices, *Troubled Projects: Project Failure or Project Recovery*, PMSolutions, 2006, p.4
- ³ Ibid.
- ⁴ Ibid.
- ⁵ Watson, Brian , *The Cost of Bad Economics*, Expert Voices, 11 February 2008, p.1
- ⁶ PMBOK, p. 83
- ⁷ Ibid., p. 85
- ⁸ Morello, Diane, Blechar, Michael, *Business Analyst Placement, Competencies and Effectiveness*, Gartner, March 22, 2005, p. 4
- ⁹ Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK), 2004, p.81
- ¹⁰ Maluso, Nancy, *Business Case: Friend or Foe?*, iSixSigma, February 25, 2008, <http://www.isixsigma.com/offsite.asp?A=Fr&Url=http://www.prosci.com/bus1.htm>
- ¹¹ PMBOK, p. 157
- ¹² Ibid., p. 166
- ¹³ PRICE Systems TruePlanning Software created all estimates used in this section. For more information, go to: www.trueplanning.com
- ¹⁴ Minkiewicz, Arlene, *The Real Costs of Developing IT Software*, Price Systems, 1 January 2004, pp. 1-6

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