

IT Investment Management: Get the Value from IT Projects

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Under New Management

If you look at any of the myriad project management flow charts, or functional descriptions, you will see a set of functions and practices focused on budget and risk management. The typical project manager is asked to keep the assigned project on time and on budget while minimizing risk items to both of these. This is important from an accounting perspective; however, I would like to inject the notions of value and innovation.

In contrast, the concepts of value and innovation are strewn across product and product market management models and practices. Models such as Adaptive on the product management side and Pragmatic on the Marketing side use words such as “innovation”, “value”, “competitiveness”. These frameworks instill a sense of business value and long term outlook.

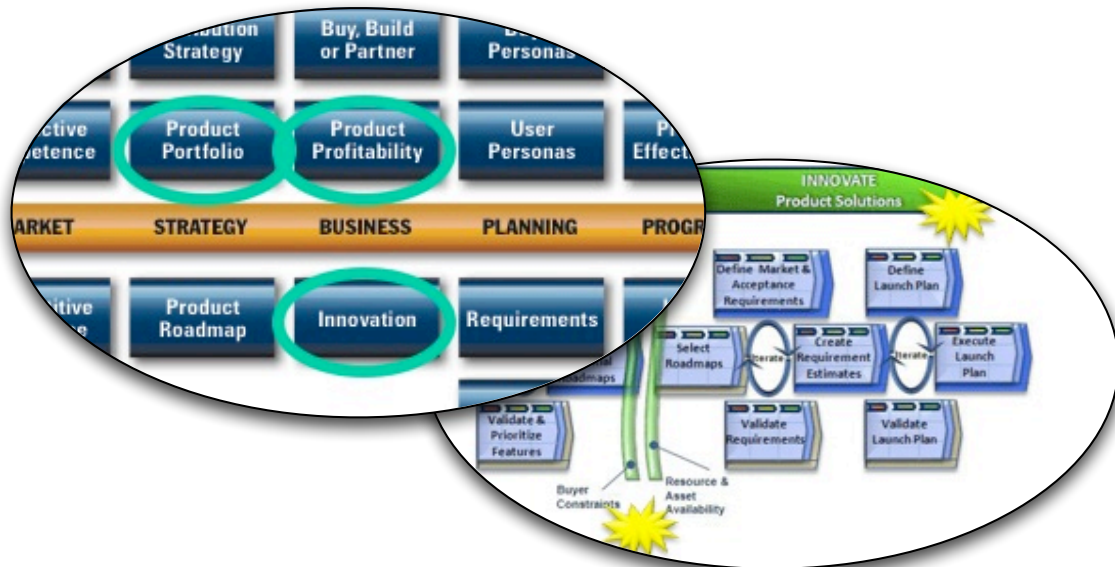


Figure 1 Measurement and Innovation is Inherent in Product Management Approaches

Most IT project managers are given a set budget and a concrete timeline to deliver a given application. These rigid channels of performance are meant to control scope and risk. Statistics reported by the Standish Group International have placed the project failure rate due to disappointing results or abandonment to be as high as 75 percent (http://www.it-cortex.com/Stat_Failure_Rate.htm). 16.2% of projects are delivered on time and on budget according to the Standish study. These are

frightening numbers. So, tight control is needed so that we do not waste time and money, right?

I would posit that many projects are failures in the eyes of the investors regardless of whether the project was on time or on budget. I would also posit that post-release the delivered application/solution value will erode quickly and the cost to maintain will increase. The project manager is trained to control the scope of their delivery and not get concerned about future implications. In fact, most project managers are then moved to another project while another operations team takes over KTLO (keep the lights on) maintenance.

This practice of scope management taught to traditional IT project managers constrains the initial release functionality and potential customer base. Post release the delivered application goes into maintenance while enhancement and expansion slow or cease. Who evangelizes the delivered product and shepherds the future generations?

The practices, methodologies and mind set of the product manager must be put into place to create a sense of investment and not a one-time project. The product manager is a long term owner. From version 1.0 to version X the product manager nurtures the solution and with the product marketing manager, exploits the investment into new customers, and markets.

The project management practice is not set up for exploiting their delivery into other areas of the business. They have no incentive or direction to leverage the effort to other uses or customers. The project manager is tasked for the delivery of their assigned budget and time allotment – period.

As an example, lets say that a company is developing a new customer master solution that is geared towards a new on-line presence. The project manager will be provided the scope of the effort and the resource allotment estimated to cover the delivery. Requests from the customer support group to leverage the wealth created by having a single integrated customer view will be shunned if it is not in the original scope. Just as overtures from the financial analysis team to exploit the data for customer value analysis will be shunned. The project manager is trained to keep the requirements in concrete and ignore pleas to expand the scope. However, the product manager and the product marketing manager will look at these as opportunities to expand their customer base and leverage the development dollar. Their practices will quickly assess the business value and investment for a longer term success. The typical project management practice will start a lengthy change request process that is designed to hinder rather than embrace change.

IT delivery teams need to take a lesson from product management and product marketing. Thinking value-based delivery will increase the initial delivery value and set a process for longer term investment management.

Managing the Business Investment

Information Technology (IT) efforts should not be singular. IT project managers need to think beyond the single project and look at the longer term investment. IT investments should only be viewed in the context of business value. IT is just one part of the broader business that is used to increase company revenue, market share and profit (via reduced expenses).

Figure 1 illustrates the generic life cycle of a business investment. Considering IT as a business investment Value (v) is plotted on the y axis and time (t) on the x axis. The area of the chart labeled A represents the time in which an investment has a lot of costs but not much value (more about that later), so we are below the break even point for most of the time. Many projects do not get above the break-even point, which is a contentious problem for many businesses. We want to move as quickly as possible to positive value contribution.

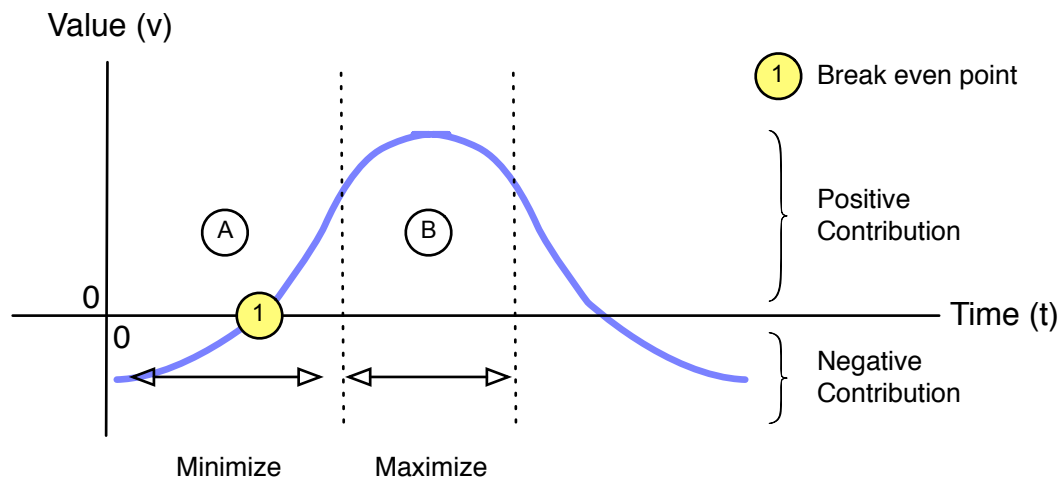


Figure 2 Standard IT Investment Curve

Section B of Figure 2 represents the time in which the investment has the most value. And this is where we would like our investment to live for as long as possible. However, value degrades over time due to degrading performance of solution, cost to maintain, or changes in business focus.

Optimal Business Non-reality

Figure 3 shows two alternative curves. The “Optimal Incremental Capability” curve is an unrealistic expectation that an investment moves from point 0 to having value immediately. It also expects that each incremental change correspondingly provides immediate value. This is not real world, but it is the way in which many IT projects are viewed. The second graph is a “Value Cow Curve” that illustrates the thought that once a project is delivered and in “maintenance phase” it offers a set value indefinitely. Actually, this curve is somewhat possible and has been illustrated with

many “legacy” COBOL platforms. Many new comers to IT scoff at green screens and batch processing from 70’s and even 60’s era applications, but they still calculate insurance premiums, send out bills, or manage inventory quite well.

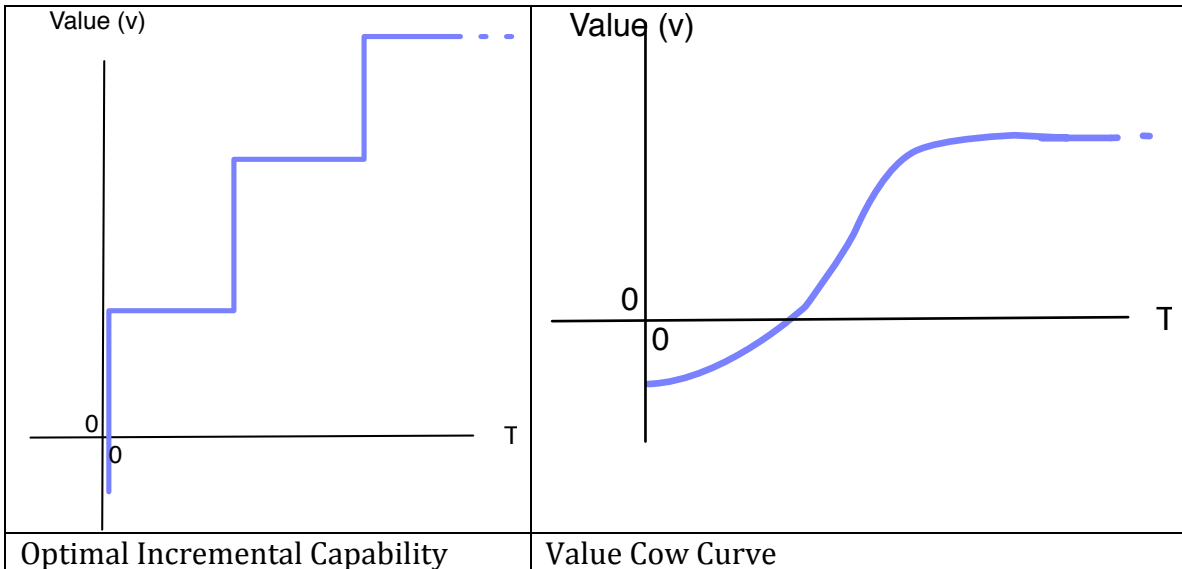
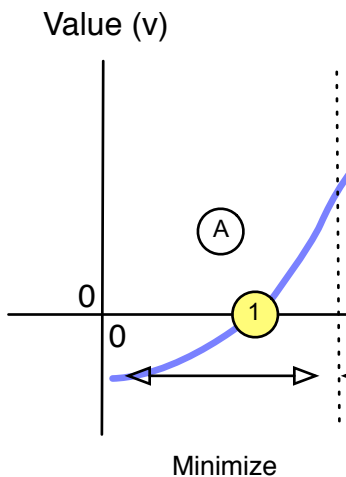


Figure 3 Optimal Investment Curves

So, the question remains about how to minimize time to value and to maintain incremental value over time. First, let's define what is meant by value. Value is the investments contribution to increasing revenue or decreasing costs (realized by profit margin). In the public sector it is measurement of service to citizens. Value is measured by a combination of discrete and qualitative factors. Financial factors such as return on investment (ROI), internal rate of return (IRR), and net present value (NPV) are discrete values. These financial numbers should be balanced with qualitative measurements such as strategic fit, and risk.

Minimizing Time to Value

Often companies try to realize value in their investments by compressing time accomplished by setting dates or stuffing extra staff onto the schedule. We all know the Fred Brooks seminal work The Mythical Man-Month: Essays on Software



Engineering and have lived many projects where the approach of setting unrealistic dates or over-staffing to compensate are not the answer. However, we can realize value sooner rather than later. IT projects do not just pop value at a final release date. In traditional waterfall approaches it is difficult to realize any value until release (and subsequent field shake outs); however, there is value created as a project progresses.

Here are several things to consider to minimize time to value.

- 1) Research: We often forget that a lot of research goes into IT projects. This material is gathered during the initial phases to describe the business environment, alternative approaches, and business strategy. Too often this work is not documented well or shelved immediately and not communicated sufficiently. This work has value to others in the business and should be leveraged for technical and non-technical future efforts.
- 2) Industry Patterns or Leverage Internal Assets: The purpose of industry patterns is to provide a foundation of research (and development) that can be exploited to provide a richer solution or to avoid the expense of research. The use of industry patterns is not a panacea and should be considered carefully to make sure that the investment is sound. Leveraging internal assets is always a sound investment. Often the technical team wants to use the latest and greatest technology or industry components, but the “value cow curve” of figure 2 shows that steady positive value can beat negative value.
- 3) Incremental Release of Functionality: Agile, or iterative approaches afford the opportunity to release incremental components. For example, a consolidated data store can be released prior to a business intelligence front end to provide various analysts with an information resource. Thus, the investment in the database design can be realized prior to the completion of a larger data warehouse effort.

Figure 4 uses the same bell curve from figure 2 to illustrate how the incremental value realization can affect the investment picture. Note that it is very possible that not all incremental components will actually realize value. Thus, the total investment value may be negative, but some components can be leveraged and distinguished for their contribution.

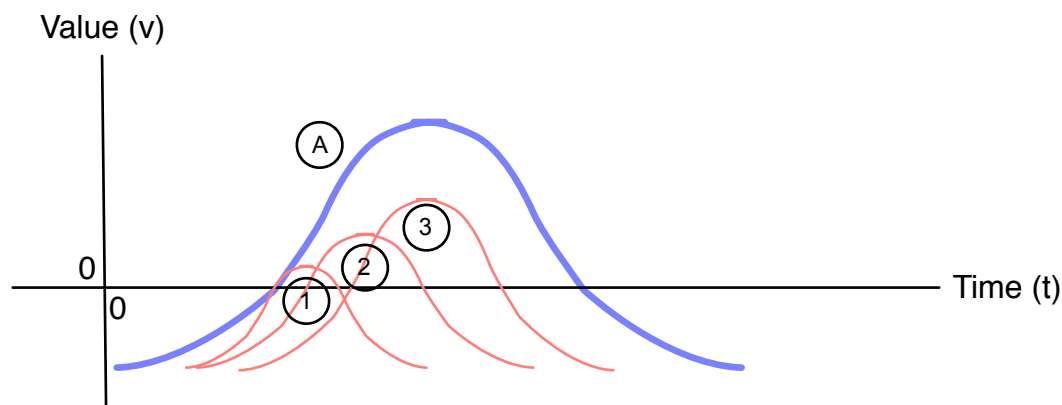


Figure 4 Incremental Investment Value

The amplitude of the curve in Figure 3 can be increased, as well. The amplitude describes the returned value. The value can be increased by such methods as:

- 1) covering more customers or business units than originally scoped,
- 2) leveraging assets from this investment into other investments,
- 3) or reducing the costs of the investment.

Another way to increase value is through innovation. Innovation is often disregarded in IT efforts. This is often because it is not valued as a part of a singular project effort. Innovation can also be disregarded because it is a risk. Most IT teams and corporate leaders do not like risk.

Innovation can come in many different forms. It may be applying the same technology to different problems (re-use). It may come in the use of non-standard techniques or tools. This latter issue is where IT often has trouble with innovation; non-standard approaches are risky.

Figure 5 illustrates how innovation can affect value. A whole new community may leverage the initial investment. This increases the value because the revenue impact goes up with the same or a small increment in cost. It may also happen that someone applies a new technique or technology to the initial problem and re-uses the research, the findings, and the original team. Competitive advantage may be created, and costs are reduced while leaving the revenues unchanged. Either way, value is increased and a good investment is made.

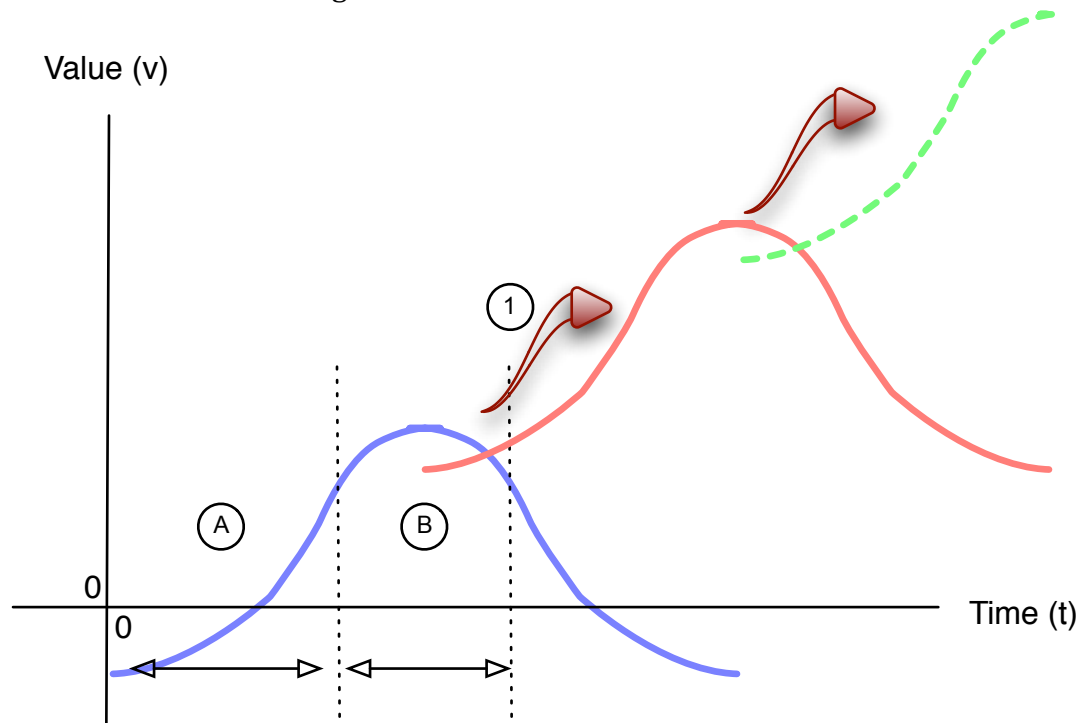


Figure 5 Innovation to increase value of IT investments

Investment in business information technology (IT) should not be valued in a vacuum. The investment must be for business purpose that is used to increase company revenue, market share and profit (via reduced expenses); therefore, IT projects need to be evaluated as any corporate use of funds. Value is an important concept that often is not the lips but does not often get measured or realized.

About the Author

Bill Wimsatt is a 20 year IT Industry veteran with expertise in Enterprise Architecture, Strategic Technical Planning, and Data Architecture. He is a recognized industry leader and frequent speaker at Enterprise Architecture, IBM, and Oracle conferences. Mr. Wimsatt's broad industry experience includes insurance, telecommunications, cable, embedded systems, US Government, and consulting.