

# **Realizing Business Value from IT Assets**

**Background Information for Academic  
Research Partners**

## **Background**

Over the past 20 years, considerable light has been shed on how IT projects can be designed and executed to optimize their expected value. Research and practice highlight that the challenge most organizations face today with their IT projects is effectively managing the organizational change that accompanies any technology deployment. However, when assessed against the value generated to the organization, the failure rate of IT projects has over the years remained remarkably high at 70%, indicating a significant gap between knowledge and practice that has yet to be bridged.

Notwithstanding this challenge, organizations – particularly large ones – can have a portfolio of many hundreds of IT projects that are ongoing at any one time. The completion of these projects, together with outcomes from projects completed in previous years – sometimes dating back 25 or more years – leads to the accumulation of a diverse and complex IT asset base. Often referred to as 'legacy', organizations have vast enterprise technology installations, plus related knowledge, policies, procedures, IT processes, data, application and relationship networks, accumulated as a result of years of IT spending. Over time, competitive and operational strategies change, business priorities move on, processes are reconfigured, but this 'legacy' remains. One vital impact of the existing IT asset base is that it can either enable or constrain the business in any future operational or strategic change.

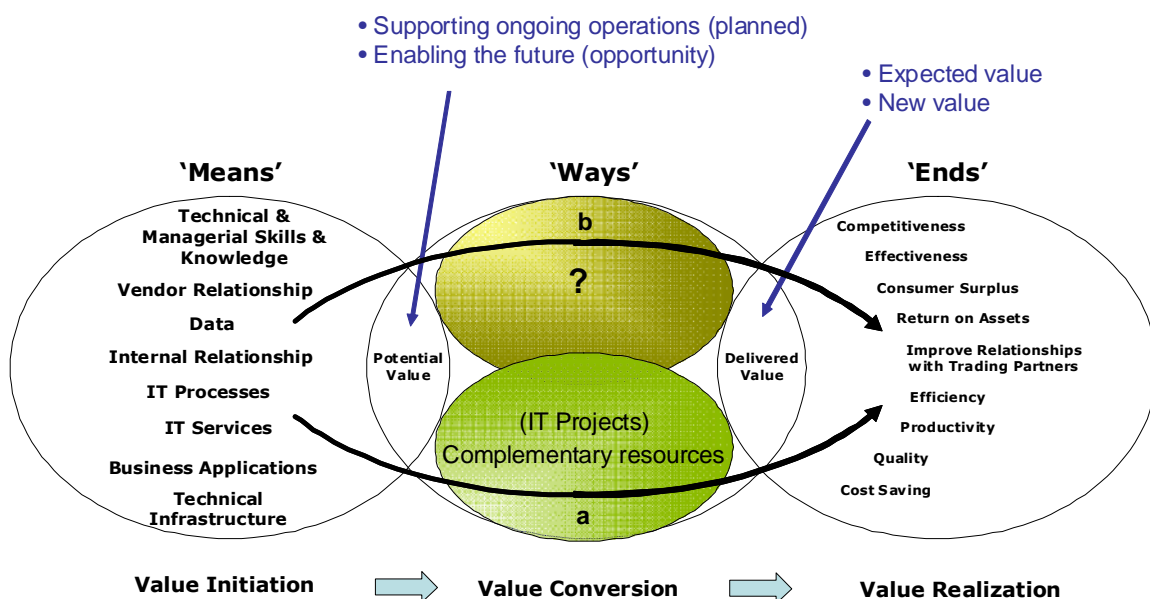
Organizations are increasingly recognizing the critical importance of the effective management of these IT assets, yet discussions tend to focus on individual technologies, applications, and their associated cost. While clearly reducing the spend on maintaining the infrastructure should be an imperative for every Chief Information Officer (CIO), discussions with senior managers should also focus on the broader value of the IT asset base, its agility and flexibility. Unfortunately, there is a lack of frameworks, models and vocabulary to enable business and IT executives to engage in a value oriented discourse.

The aim of this research project is to help organizations assess the value of their IT assets, to seek out opportunities to increase the business value generated from their accumulated IT asset base, and to identify good practices to ensure that this value is delivered.

## Research Model

One approach to characterizing business strategy and its execution is by using the “ends-ways-means” model: establishing corporate objectives or vision, the ‘ends’; developing a strategy, the ‘ways’; and marshalling the resources necessary to implement this strategy, the ‘means’. Projects can also be seen in this context, where the expected ‘end’ result, requires figuring out the ‘means’ and the ‘ways’ to deliver the project objectives. This logic was followed to construct the model underpinning this research.

This model illustrates that IT assets (the *means*) have ‘potential value’; this value must be unlocked to generate delivered value. The model shows two paths (or *ways*) to value creation. The first (arrow ‘a’ in figure) is the route that an IT project typical follows. With its defined *ends* (i.e. the project objectives), IT assets (*means*) in combination with complementary organizational resources such as a new process requiring new work practices (*ways*) generate value to the business. For example, an organization seeks to increase sales (*ends*) through the implementation of customer relationship management (CRM) system (*means*). Deploying the CRM system alone does not lead to increased revenue. To achieve this end, complementary organizational resources have to be developed (the *ways*), including new processes, new capabilities to use customer information and new work practices. While well researched, there is still a gap between what we know needs to happen for IT projects to be successful and what happens in reality.



**Figure 1.** A Framework for Leveraging IT Assets.

The second route (arrow 'b' in Figure 1), which is the focus of this study, is where the accumulated IT asset base itself has the potential to generate additional or new value to the organization. For example, improving IT processes, perhaps by adopting and implementing ITIL Service Management best practices or simplifying data centres through virtualization can leverage additional value for the organization through reducing both the cost of supply as well as the quality of services delivered. Similarly, an agile technical infrastructure can facilitate a quick response to competitive threats and opportunities. Thus, the way an organization chooses to leverage and exploit IT assets (*means*) will determine the results (*ends*).

**(1) Value Initiation (Means):** On their own, IT assets have no value, rather they represent *potential value*. These assets include infrastructure, which is shared technology and technology services as well as business applications, which utilize the infrastructure e.g. for purchasing, sales, customer support, patient management, etc.; human IT resources, including technical and managerial skills and knowledge (while the former refers to programming, systems integration and database development skills, etc., the latter refers to understanding the business, planning capability, etc.); relationships with business colleagues; IT processes; data; and vendor relationship.

**(2) Value Conversion (Ways):** There is always a gap between potential value (estimated value that could be obtained) and delivered value (actual value that is obtained). Considering potential value can help guide management action to maximize the value realized. Further, an explicit consideration of realized value relative to the potential value can help management learn why potential value may have been left unrealized and what actions are needed in the future to ensure effective conversion of potential value into realized value.

**(3) Value Realization (Ends):** represents the outcome of combining the *means* and *ways*. Measures of IT business value typically fall under one of the three categories: strategic (e.g. competitiveness, effectiveness, return on assets), tactical (e.g. improvement of relationships with trading partners) and operational (e.g. efficiency, productivity, quality, cost saving).

## Data Collection

The 'how' of leveraging value from IT assets is under-studied. In order to address this gap, this research will embark on a worldwide qualitative survey, following a model of Open Innovation.

Cranfield School of Management (SoM) will partner with leading academic institutions to collect and analyse empirical data. In return, these institutions will have access to *all* data collected which will be stored in a central data-sharing portal. Institutions agreeing to take part will be expected to interview 6-10 CxOs (Chief Officers) using a semi-structured interview protocol.

The interview questions, outlined below, were formulated around the framework for leveraging IT assets presented earlier. The questions are keyed to the domains of value initiation, value conversion and value realization. Interviews should be transcribed and transcripts sent to the interviewees for validation. If appropriate, secondary sources supporting answers to the questions such as company documentations should also be gathered.

An iterative, cyclical model of data analysis will be adopted consisting of three components: data reduction, data display, and conclusion drawing/verification. To ensure the robustness of the analysis, data reduction will be performed by members of the open innovation consortium independently inspecting the interview notes and transcripts. The analysis of the empirical findings will be structured around the three contexts outlined in the business value of IT framework. NVivo 7.0 will be used to handle the collected data.

## **Publications**

A number of academic publications will result from this research. All research partners that participate fully in the research and writing process will be acknowledged as co-authors of papers.

## **Schedule**

Data collection is expected to start at the beginning of January 2009 and be completed by end of March 2009, which will allow for data analysis to be undertaken during April 2009. The final report of the findings will be produced in May 2009.

## **Research contact details**

This research project is been led by Professor Joe Peppard. Dr. Ben Ramdani ([b.ramdani@gmail.com](mailto:b.ramdani@gmail.com)) is the researcher working on the project and he will coordinate activities with academic partners as well as project manage the project.

## Funding acknowledgment

The research is being funded by CA.

## Outline Interview Questions

<b>Position:</b>	CEO	CIO	CFO	Other:
<b>Company:</b>				
<b>Country:</b>				
<b>Industry:</b>				

### What do you consider as constituting your "IT asset" base?

Once responses to this question captured, clarify what we mean by IT assets for the context of this project. Make distinction between IT-enabled business change projects (where benefits emerge from the business changes that are enabled by the IT rather than the technology itself) and "pure" technology projects. While this change is underpinned by technology, the accumulation of IT from all these IT projects typically becomes part of the organizations infrastructure. This so called "legacy" is essentially the accumulation of IT as a result of past IT projects and pure infrastructure investments and also includes relationships with internal colleagues and vendors, IT processes, data, and knowledge.

### Does your organization place a value on this IT asset?

*Prompt: Is it seen as an asset by executive management? Do senior business managers use any formal approaches to evaluate the potential value of IT assets? What metrics are used (if any)? Is this value tracked over time? Is it reported? Do you think that it is even worthwhile to place a value on IT assets?*

### Does your organization actively manage its IT asset base?

*Prompt: How is the value optimized? What tools or approaches do you use? What practices do you follow? For example, ITIL or Cobit. (With this question we are attempting to capture how the IT asset base is managed, secured and governed)*

### What IT assets do you consider as being critical in generating or protecting your organization's revenues and/or competitiveness?

*Prompts: Why? How?*

### How do your organization's IT assets boost your company performance?

*Prompts: Can you provide some examples?*

**What do you consider as the critical factors that influence or effect the realization of business value from your IT assets?**

**Can you recount any instances where the competitiveness of your company was helped or jeopardized because of the quality of the IT asset base?**

*Prompts: How? Why?*

**How do you think your organization could increase the business value from its IT assets?**

*Prompt: What challenges are you likely to face in this quest?*