

Mohan Kancharla heads IT strategy consulting delivery for TCS Global Consulting Practice. Kancharla has 20 years of consulting, practice building, business development, solution architecting, program management and delivery experience. He has led and executed engagements across the consulting spectrum for *Fortune* 500 companies, across verticals worldwide. His research interests include strategy, governance and consulting, on which he has taught and written several papers. He can be reached at mohan.kancharla@tcs.com.

Sankalan Bhattacharjee is a part of the TCS Global Consulting Practice team, specializing in IT strategy and governance. He currently leads TCS's IT governance offerings. Sankalan has more than eight years of experience in consulting, project management, and client and team management. He has led and executed assignments in the realm of consulting and IT service support and delivery. He can be reached at sankalan.b@tcs.com.

Realizing Benefits of IT Investments: Overcoming the Silver-bullet View

Traditionally an IT project was evaluated on the basis of whether it was completed on time, within budget and according to the technical specifications. Little consideration was given to its use by business or its ability to deliver expected business benefits. Even today, most mature organizations follow only a process of business case formulation and validation before investing in technology enablers. However, even in such cases, the focus is more on what IT can achieve, rather than on the changes required at an enterprise level to fully utilize the technology's capabilities.

More often than not, organizations adopt a silver-bullet view—"once we get it in, benefits will begin to flow"—without taking into account whether the IT investments can deliver the expected business benefits. This has resulted in failed projects and programs.

Thus, a benefit realization stream, forcing the validation of the business case assumptions underpinning the program or project, is needed. This, in turn, will enable the creation of a decision framework tuned to the business need for all scoping, prioritizing, scheduling and risk management activities on the project or program.

BENEFIT REALIZATION STREAM

Benefit realization ensures that program success is determined in terms of the benefits delivered to the business. Thus, the focus is on planning, demonstrating and communicating benefits so that the contribution of IT investment to the success of the overall business is clear.

Hence, the key design principles of a realistic benefit realization approach encompass:

- **Linking IT investments to business changes**—To identify the full extent of business changes and investment options required to achieve the investment objective
- **Selecting the optimum solution to meet the investment objective**—To finalize the optimum technology solution from various options to achieve the investment objective

- **Formulating the business case**—To build a business case with cost and realizable benefit figures for the finalized technology option
- **Planning for benefit management**—To structure and track benefits through benefit modeling and defining, establishing and tracking measures

This approach demonstrates that the benefit realization of IT-enabled business investments aims to ensure that the desired business changes have been clearly defined, are measurable and provide a sound business case for investment, finally leading to the tracking of achievement of desired changes.

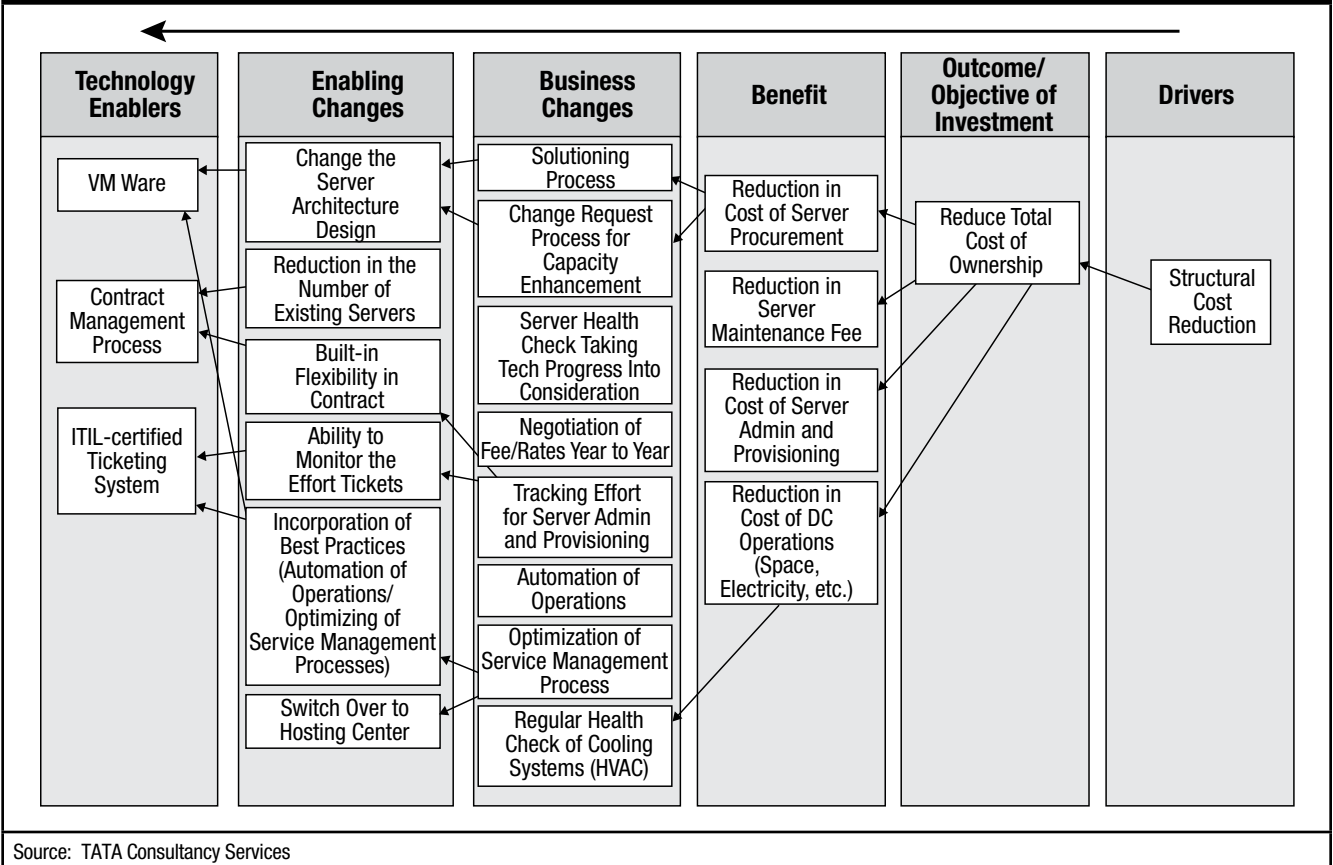
LINKING IT INVESTMENTS TO BUSINESS CHANGES

The realization of value from IT investments is based on the fact that IT has no inherent value by itself. It is the usage of IT systems and solutions enabling people to perform things in a different way that leads to the realization of business benefits from IT investments. Thus, benefits derived from IT investments arise from the changes executed by individuals or groups—internal or external to the organization. These changes need to be identified, tracked and managed for successful benefit realization from IT investments.

The core framework addressing this key principle of the benefit realization plan is the Benefits Dependency Network (BDN).¹ BDN provides a framework to understand the full scope of changes required to achieve the investment objective. One fundamental element of BDN is working backwards from the objective of the investment. This ensures that the investments are driven by business demands and not from the need to implement an IT solution.

A leading airline in the Asia-Pacific region has adopted BDN design as an integral part of its project evaluation process. **Figure 1** illustrates part of a network for an infrastructure virtualization solution for the airline. The actual network was significantly more detailed.

Figure 1—Partial BDN Diagram for Infrastructure Virtualization Solution



Source: TATA Consultancy Services

To analyze the investment option for the virtualization solution, the team worked from right to left to develop BDN, that is, from the agreed investment objectives and benefits that the service delivery and infrastructure manager identified, through the required changes in IT processes and standards, to the various technology options capable of delivering the stated benefits.

Thus, in the given example, BDN helped to link:

- The outcome or objective of the investment (reduce total cost of ownership) to the driver (cost reduction, one of the key result areas per the business strategy)
- The various benefits (server procurement, maintenance and administration) to the investment objective
- The business or permanent changes to the working practices and processes (solutioning, change request, server administration and provisioning, etc.) to the benefits
- The enabling or one-off changes (server architecture, effort monitoring, contract flexibility, etc.) to the previously mentioned business changes, as they are the prerequisites for making the permanent changes

- Various technology enablers (solutions, processes, mechanisms, etc.) to facilitate the one-off changes
- As evident from **figure 1**, linking the investment objective to the required changes through BDN resulted in the detection of a few more technology options, over and above the envisaged infrastructure virtualization solution.

SELECTING THE OPTIMUM SOLUTION TO MEET THE INVESTMENT OBJECTIVE

BDN analysis helps to identify alternative ways to achieve the desired business outcomes. However, these alternatives need to be assessed to select the optimum means to meet the investment objective. The assessment can be based on:

- Financial analysis of benefits (as derived from the BDN analysis) and costs measured in terms of return on investment (ROI), internal rate of return (IRR), net present value (NPV), payback period and so on. At this stage, that is, before the business case is made, the financial analysis is based on

industry and analyst data for similar investments for other organizations. As such, risk-adjusted business benefits (based on a total economic impact methodology) and consideration of benefits realizable in the organizational context lend more credibility to the entire assessment process.

- Risks, both from the business and technology standpoint, need to be assessed for each alternative course of action. A scoring mechanism for risk rating, based on impact and probability of occurrence of risks, can be used to evaluate one option against the other.

Typically, the option with the highest potential rate of return and value, at affordable cost with an acceptable level of risk, is selected as the way forward. Once an option is selected among the alternatives, a detailed business case is prepared for approval.

FORMULATING BUSINESS CASES AND PLANNING FOR BENEFIT MANAGEMENT

The business case is a top-down assessment of the investment case for the program. It includes alignment, financial/nonfinancial benefit, cost, risk and value (relative value of the program at the portfolio level) elements, as well as an assessment of who will decide when a benefit is delivered and when the acceptance will occur.

The assessment is repeated after significant changes to the benefit model (or cost/risk basis) have occurred, and no less than once a year. (This article does not delve into the details of framing of business cases, as there are ample frameworks [e.g., Val IT] and literature available on business case formulation and maintenance.)

Modeling benefits and risks are critical elements of a benefit management plan and include:

- **Value flash point analysis**—It is the moment when the improvement is first felt by the business and is a key event in the value delivery schedule. It answers the question of whether or not the desired change has happened. It can also be used for nonfinancial benefits that may be hard to include in the business case or benefits model in other ways. For example, the first sign that a virtualization program is on the right track is that no purchase requisition of servers is made during solutioning and the change request process.
- **Benefit breakdown structure**—It helps to map out the benefit stream required from the program using a program evaluation and review technique (PERT) chart to enable decomposition of the overall objectives into lower-level packages, and to highlight dependencies among the

elements of benefit, e.g., a reduction in servers results in a reduction of server administration cost and data center power costs.

- **Benefit and risk register**—A benefit and risk register is the single central repository of the benefits and risks associated with the proposed program/project. For example, the detailed attributes of all the benefits captured are scoring and ranking by value/effort criteria, scoping statements, due dates, ownership, unique identifiers (using hierarchical numbering so that enablers are listed under direct benefit) and dependencies. The attributes captured in the risk register are the impact (severity), probability of occurrence of the risk and mitigation strategies.
- **Risk benefit matrix**—It helps in aligning identified risks with the specific benefits that are threatened. Thus, for each of the top-level, direct benefits (i.e., the program objectives), the risk involved in the component elements is summed up, which, in turn, illustrates where the relative weight of risk lies.

Thus, it is evident that a benefit management plan that ensures program success is determined in terms of benefits delivered to the business. This means planning, demonstrating and communicating benefits so that their contribution to the success of the overall business is clear.

CONCLUSION

The current economic downturn has led to the focus shifting to discretionary spending as an automatic choice to contain cost. However, to enable business growth and enhance competitiveness of firms, IT will have to continue investing in change initiatives. A robust benefit management modeling and realization approach consisting of linking IT investments to business changes, assessing alternative solutions, building a business case and the benefit management plan would go a long way in removing unpredictability from IT-enabled business investments. This approach, as compared with an approach that is just based on formulation and approval of business cases, will lead to identification of the full extent of business changes and finalization of optimum technology solutions before building the business cases and structuring benefit management plans.

ENDNOTE

- ¹ Peppard, Joe; John Ward; Elizabeth Daniel; “Managing the Realization of Business Benefits From IT Investments,” *MIS Quarterly Executive*, March 2007

The *ISACA Journal* is published by ISACA. Membership in the association, a voluntary organization serving IT governance professionals, entitles one to receive an annual subscription to the *ISACA Journal*.

Opinions expressed in the *ISACA Journal* represent the views of the authors and advertisers. They may differ from policies and official statements of ISACA and/or the IT Governance Institute® and their committees, and from opinions endorsed by authors' employers, or the editors of this *Journal*. *ISACA Journal* does not attest to the originality of authors' content.

© 2010 ISACA. All rights reserved.

Instructors are permitted to photocopy isolated articles for noncommercial classroom use without fee. For other copying, reprint or republication, permission must be obtained in writing from the association. Where necessary, permission is granted by the copyright owners for those registered with the Copyright Clearance Center (CCC), 27 Congress St., Salem, MA 01970, to photocopy articles owned by ISACA, for a flat fee of US \$2.50 per article plus 25¢ per page. Send payment to the CCC stating the ISSN (1526-7407), date, volume, and first and last page number of each article. Copying for other than personal use or internal reference, or of articles or columns not owned by the association without express permission of the association or the copyright owner is expressly prohibited.

www.isaca.org