Right Aligning
Application Investments

A Thought Paper on "Application Portfolio Optimization Approach" from the Business Consulting Group

ITC INFOTECH

Business-friendly Solutions

Executive Summary

As software applications play an ever increasing role in enabling business operations of corporations, CIOs and IT leaders face considerable pressure to create more and more sophisticated, flexible, agile and high performance solutions while grappling with pressures on increasing costs.

Any historical analysis on application investments made by corporate would reveal investments of billions of dollars in software applications. A significant challenge that CIOs face however, is a question on which of these really yielded desired business results. Reasons for these are manifold.

This is driving a consistent need towards an Application Portfolio Optimization approach to help drive better ROI from application investments. In this paper, we examine the challenges, needs and expectations around an application optimization approach and present a structured approach for the same.

Application Portfolio Challenges

Value erosion from application investments can be traced back to a number of factors such as lack of business-IT alignment, absence of a business value case, overuse of legacy technologies, changing consumer sentiments and needs, lack of a structured portfolio approach towards new application investments, etc. As an example, business-IT alignment challenges often manifest themselves in situations as mentioned below in Figure 1:

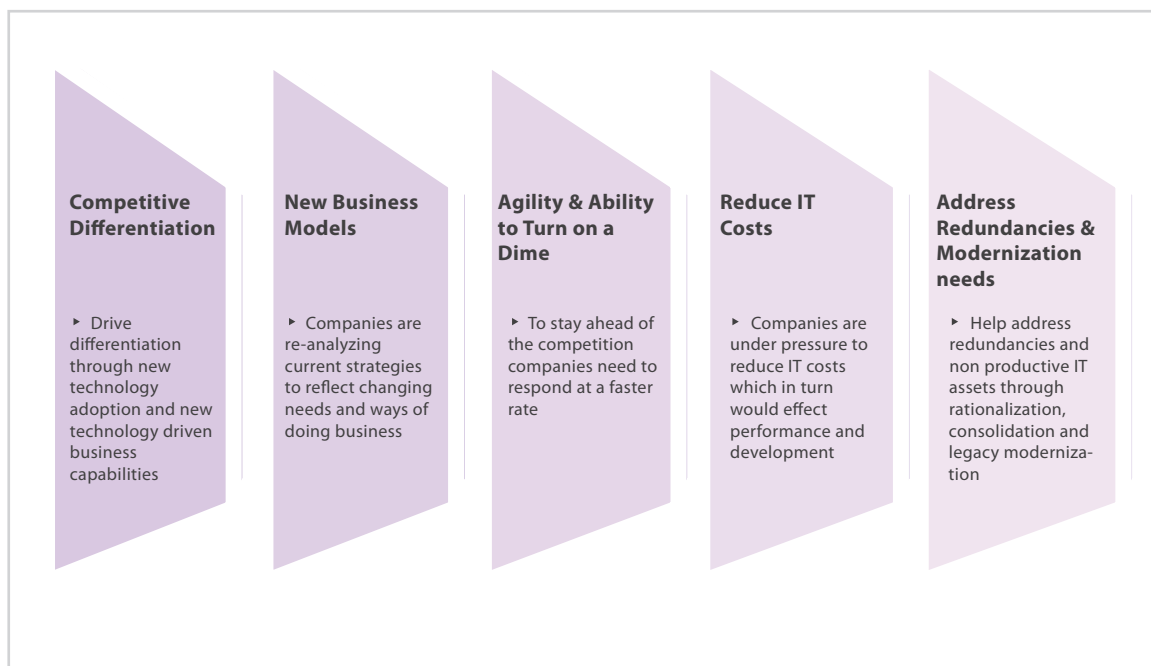| Competitive Differentiation	New Business Models	Agility & Ability to Turn on a Dime	Reduce IT Costs	Address Redundancies & Modernization needs
‣ Drive differentiation through new technology adoption and new technology driven business capabilities	‣ Companies are re-analyzing current strategies to reflect changing needs and ways of doing business	‣ To stay ahead of the competition companies need to respond at a faster rate	‣ Companies are under pressure to reduce IT costs which in turn would effect performance and development	‣ Help address redundancies and non productive IT assets through rationalization, consolidation and legacy modernization

Figure 1

We often see organizations make a push towards IT investments driven largely by short term considerations rather than long term potential business value creation. This has sometimes resulted in complex, inflexible and high cost heterogeneous IT environment with redundant applications and processes. The combination of complexity and lack of oversight has resulted in inefficient adaptation of applications resulting in risks and delays. Meanwhile increased regulatory requirements have led to a huge upsurge in governance procedures and application compliance. In today's world of constant evolution and innovations IT organizations are finding it a huge challenge to create sustainable value and innovation.

As a way of addressing these challenges, many organizations are turning to Application Portfolio Analysis and Management as a structured process and method to modernize their portfolio, extract more value out of the portfolio and drive better business-IT alignment and value creation.

Application Portfolio Analysis Benefits Articulation

Application Portfolio Analysis (APA) is a methodology and framework that improves organizational understanding of applications leading to their effective management. Such approaches help drive alignment of application portfolio with business strategy and also bring in an enterprise architecture concept while helping improve the business value of applications.

We believe, if organizations view APA as an iterative methodical process rather than a one-time investment, it can help transition the focus of organizations from "keep the lights on" activities to "tactical informed business investments".

Quantifying the business related merits of APA can be measured through the organization's IT budget. IT budget control is particularly important in the current economic environment as there is a great deal of concern about financial conditions, particularly among senior managers. Hence, they are well-positioned and well aware to exploit cost control tactics.

Figure 2 provides an illustrative example of how APA can help organizations open up additional avenues of strategic/discretionary investments.
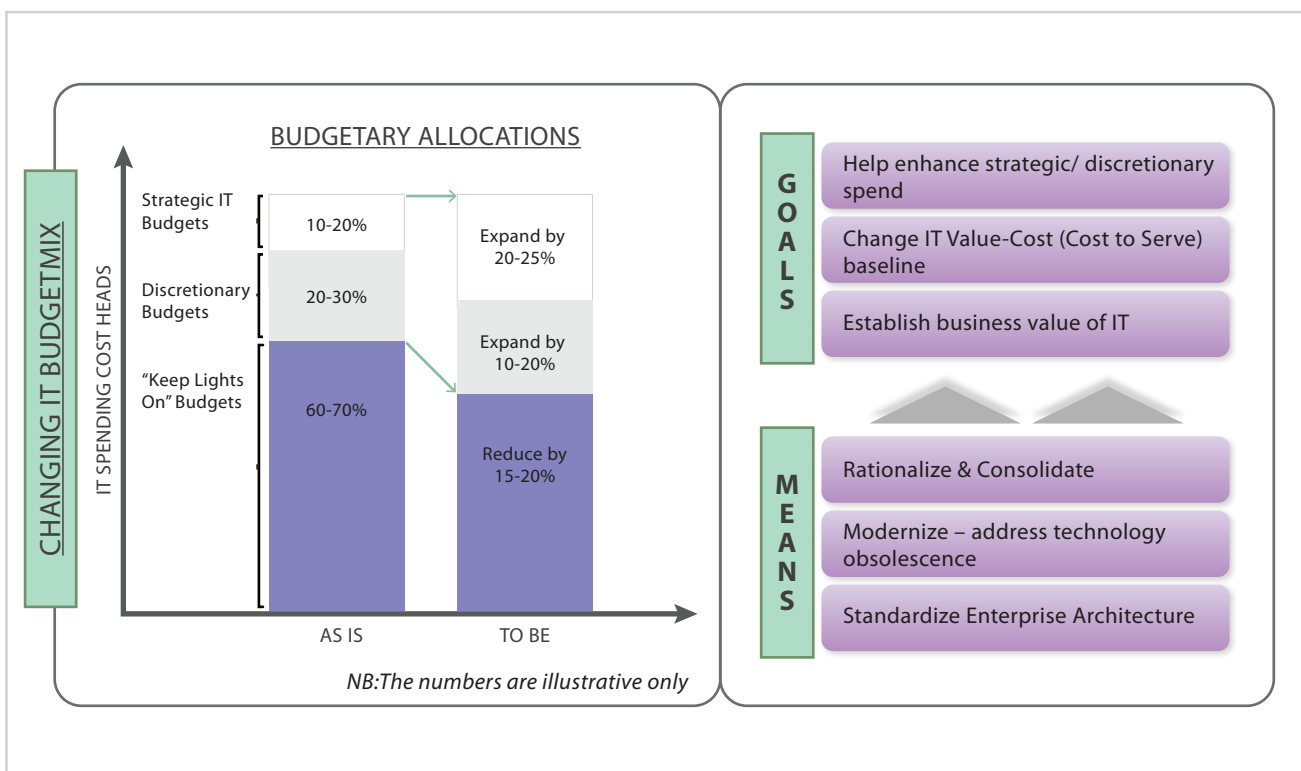

Figure 2

It is important to note that even though specific portfolio objectives exist for APA such as cost control, there are other objectives which can be achieved during the process as mentioned in Figure 3:

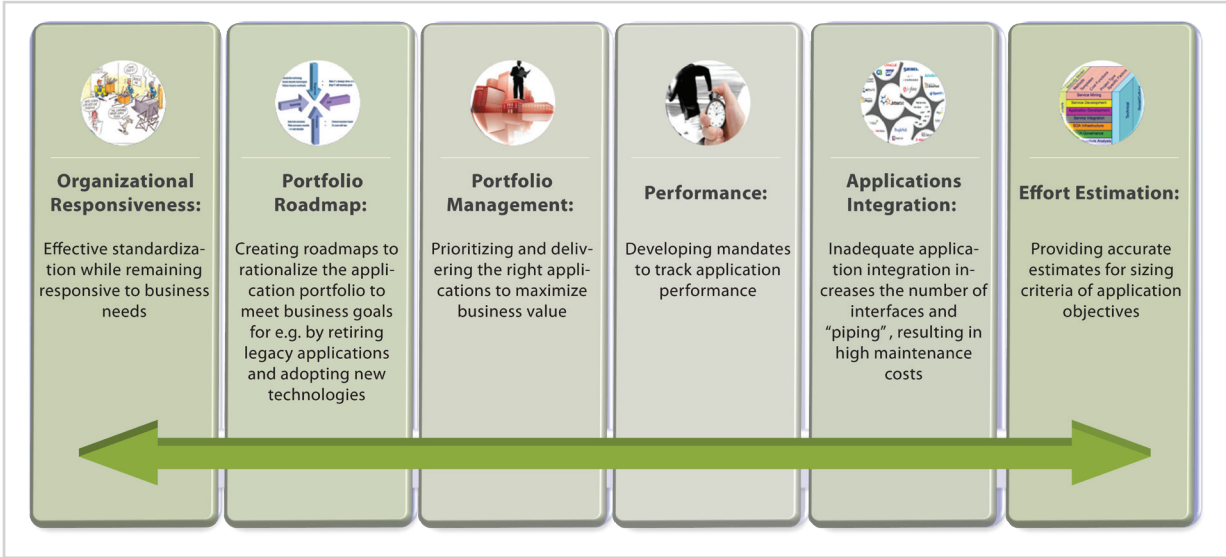| Organizational Responsiveness:	Portfolio Roadmap:	Portfolio Management:	Performance:	Applications Integration:	Effort Estimation:
Effective standardization while remaining responsive to business needs	Creating roadmaps to rationalize the application portfolio to meet business goals for e.g. by retiring legacy applications and adopting new technologies	Prioritizing and delivering the right applications to maximize business value	Developing mandates to track application performance	Inadequate application integration increases the number of interfaces and "piping", resulting in high maintenance costs	Providing accurate estimates for sizing criteria of application objectives

Figure 3

Application Portfolio Optimization – Our Proposed Framework

A robust framework for Application Portfolio Optimization (APO) is focused on understanding, evaluating and transforming the current portfolio to an effective rationalized portfolio. This transformation will lead to the creation of opportunities resulting in cost cutting measures without affecting the balance of the business-IT alignment.
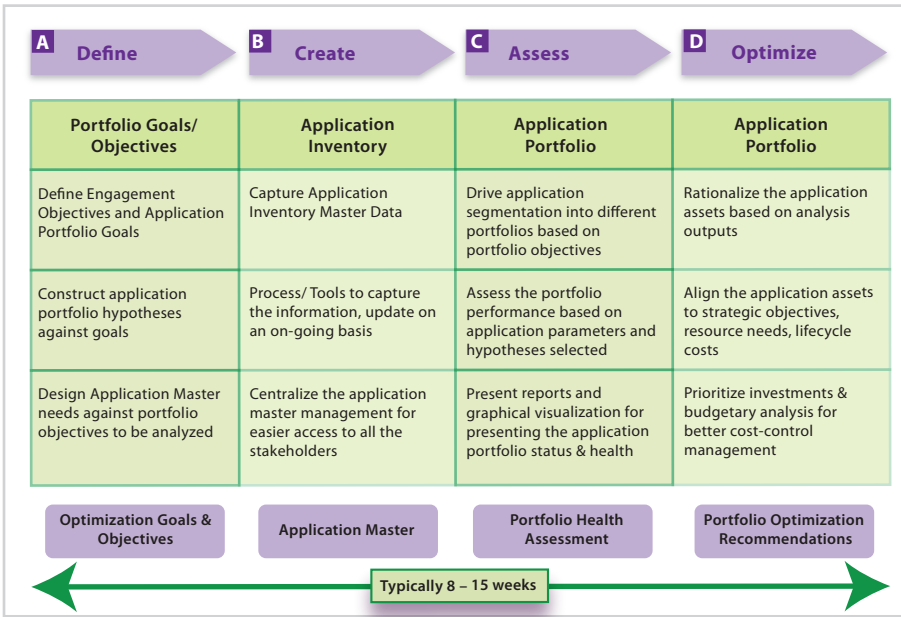

A Define	B Create	C Assess	D Optimize
Portfolio Goals/ Objectives	**Application Inventory**	**Application Portfolio**	**Application Portfolio**
Define Engagement Objectives and Application Portfolio Goals	Capture Application Inventory Master Data	Drive application segmentation into different portfolios based on portfolio objectives	Rationalize the application assets based on analysis outputs
Construct application portfolio hypotheses against goals	Process/ Tools to capture the information, update on an on-going basis	Assess the portfolio performance based on application parameters and hypotheses selected	Align the application assets to strategic objectives, resource needs, lifecycle costs
Design Application Master needs against portfolio objectives to be analyzed	Centralize the application master management for easier access to all the stakeholders	Present reports and graphical visualization for presenting the application portfolio status & health	Prioritize investments & budgetary analysis for better cost-control management
Optimization Goals & Objectives	Application Master	Portfolio Health Assessment	Portfolio Optimization Recommendations

Typically 8 – 15 weeks

Figure 4

During the optimization process, the value of each application is computed. According to the analysis conducted on each application, a rec¬ommendation is made to either retire or decommission end-of-life applications or conduct a functional upgrade to applications determined to be critical to the business.

Step 1: Portfolio Goals and Objectives

In the first phase of APO we advocate a hypothesis led approach that binds the objectives, expected outcomes and scope wherein we define the engagement objectives and application related decision parameters and goals.
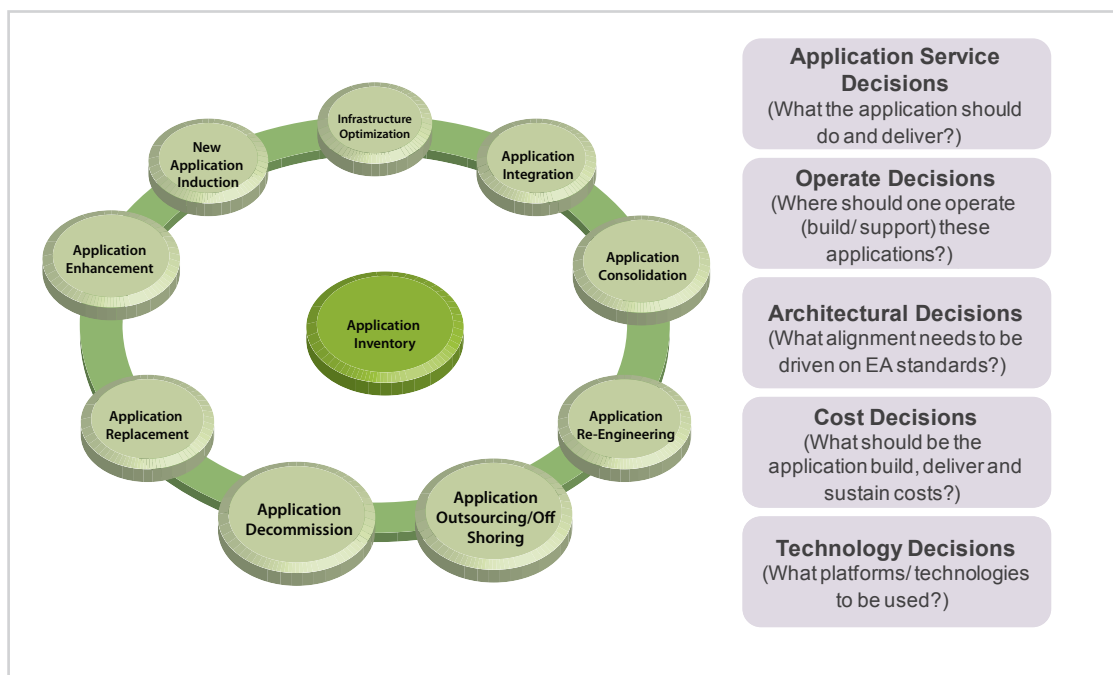
Figure 5

Step 2: Application Inventory

The major deliverable of this phase is to give an accurate application inventory structured according to the specific needs of the enterprise. To determine the scope of APO, we need to produce a detailed inventory of the applications used in the organization.

Application assessment starts with issuing a questionnaire that is intended to assemble data elements across technology, business, functionality and cost dimensions. The primary information is obtained through interviews, using the questionnaire, with the application service managers and business system owners of the process.

Step 3: Application Portfolio Assessment

In the third phase an assessment map is created based on parameters identified under the business and technical dimensions. Each parameter is assigned a weight based on its relative importance to the other parameters within a dimension (see Figure 6). Individual applications are assessed on each parameter, based on the data collected through interviews and surveys. The business value and technical health indices identify each application's lifecycle positioning, assesses the opportunity for improvement, calculates the cost savings and determines the actions needed to optimize the application's business effectiveness.
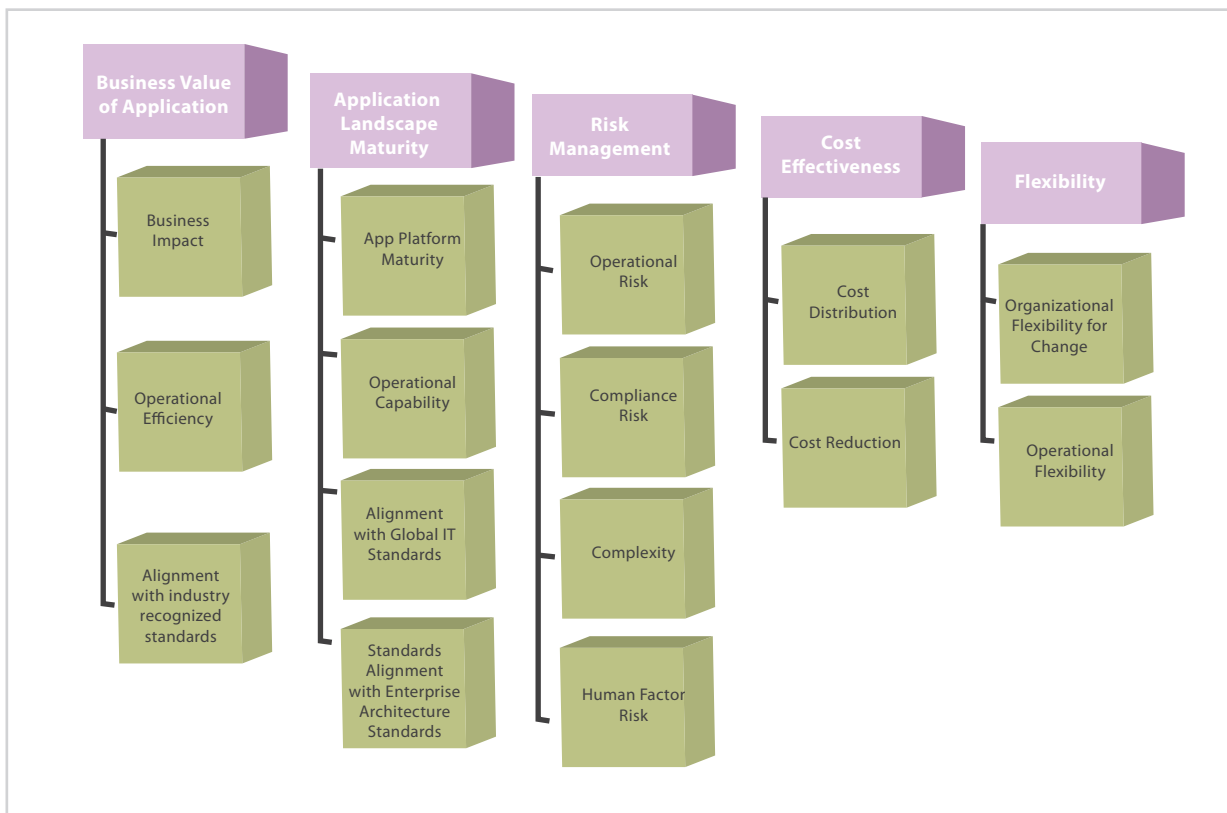
Figure 6

Step 4: Application Portfolio Optimization

The optimization phase puts the results of the analysis phase into action as shown in Figure 7 (sample scenario). The 4R Matrix Framework consisting of Retire, Replace, Re-Engineer and Retain is used for mapping the application based on their assessment and evaluation.

Having determined the general course of action, decisions need to be more concrete and detailed in a well defined solution, taking into consideration how these selections might affect the business case and the individual application dimensions. Each action shown needs to be carefully monitored throughout the entire phase and keep it aligned with its specific business case.
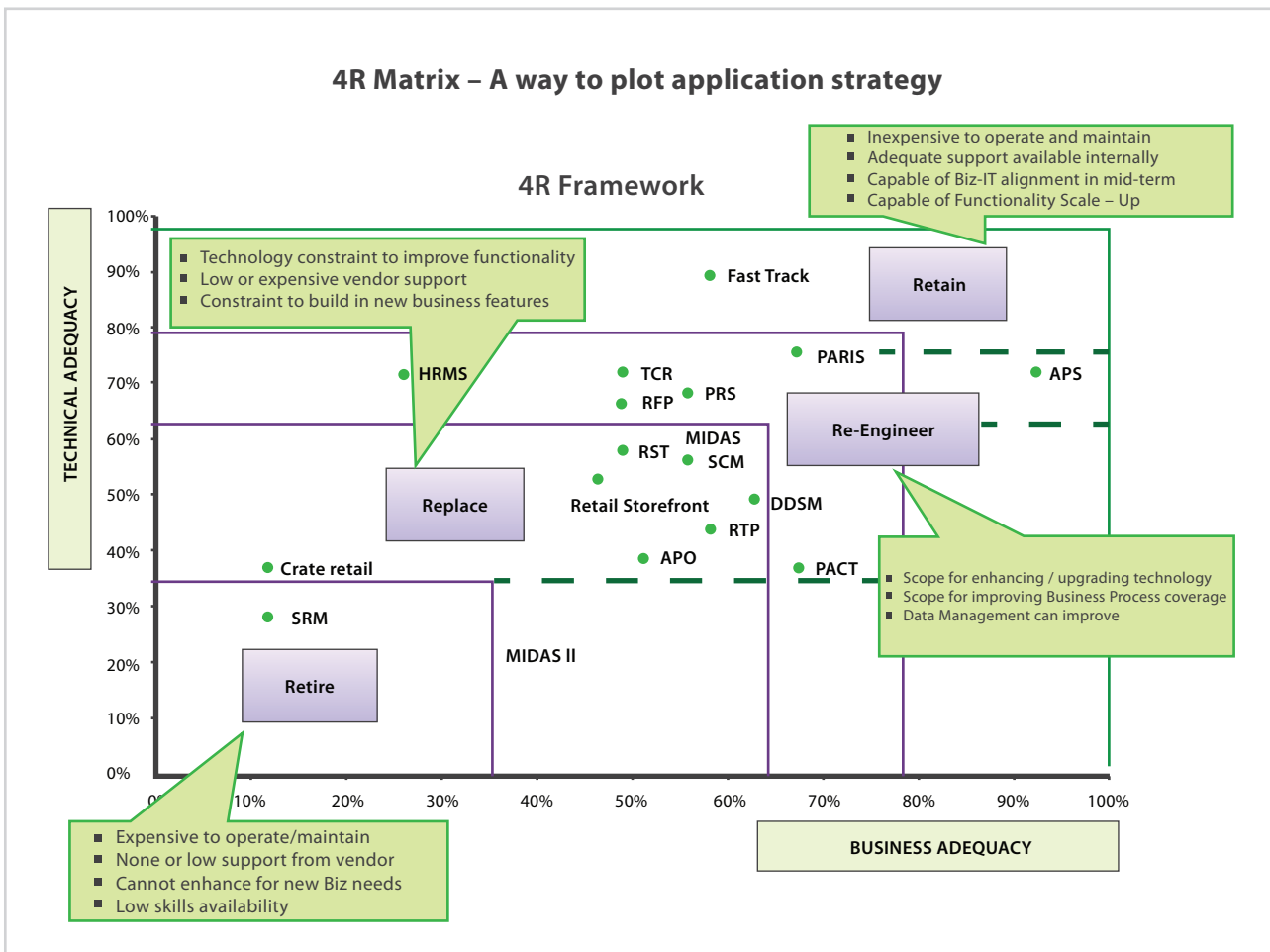

Figure 7

Conclusion

Application Portfolio Optimization can help significantly alters the cost structure of IT. Although it requires investment, upfront APO will more than make up for it in the long run. For example, consolidation of applications initially would require a large amount of due diligence in regard to requirement gathering. But then this action would not only result in a decrease in maintenance and support due to lesser number applications, but also reduce overall compliance quality checks.
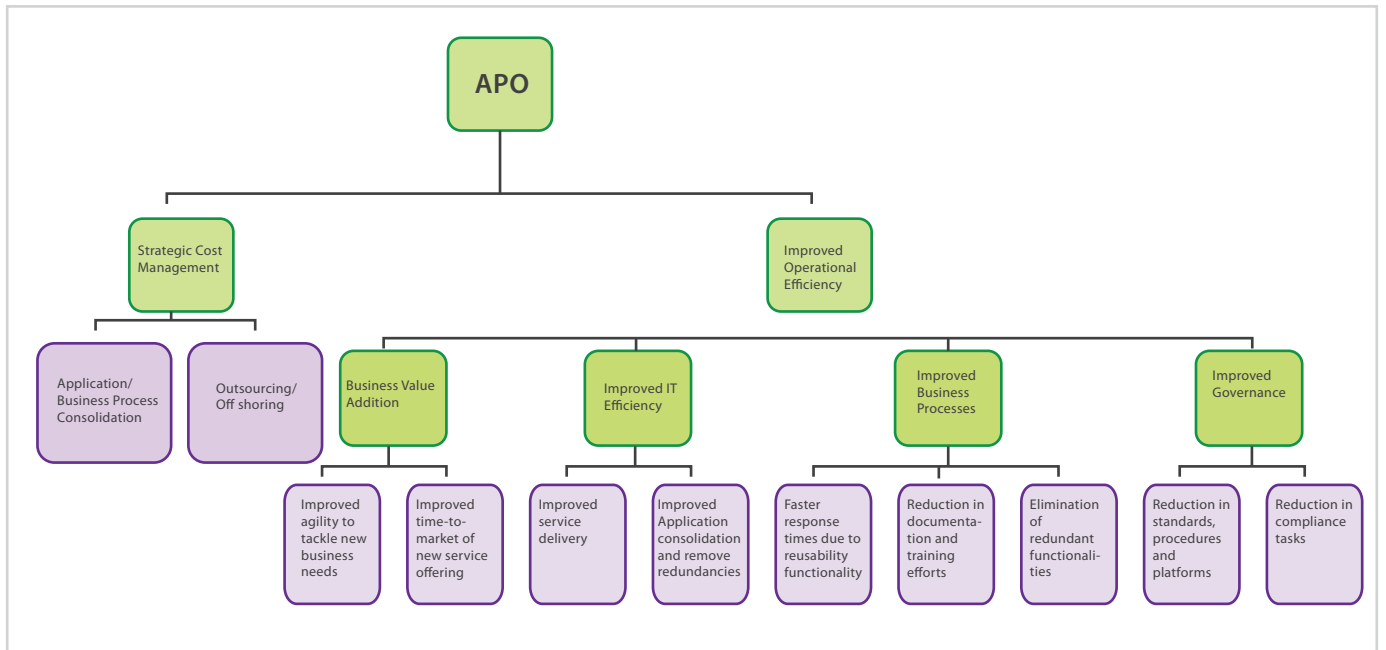
APO can be used as a guiding tool moving forward by helping meet contemporary business needs with cutting edge technologies and business processes. This framework helps organizations adapt to the constant evolution of market demands.

About the Author(s)

Sandeep Kumar is VP and BCG Head for ITC Infotech. Kumar holds an MBA from IIM Bangalore and a degree in Mechanical Engineering from NIT, Rourkela. He has more than 18 years of operations and consulting experience spanning across diverse industries as Hi-Tech, Aerospace and Defense, Discrete Manufacturing and Retail Operations.

Christopher Stanley is Global Partner for the Strategic Programs and Transformation Group of ITC Infotech. Chris is an MBA in Operations Research and International Business. He has about two decades of International Consulting and Account Strategy experience in enterprise technology implementations and program management. His industry experience in Automotive Ancillaries, Rubber and Tyres, Pulp and Paper, Processed Food Manufacturing is well received. He has also been a guest speaker at some of the premier CIO forums in this part of the geography.

Sunil Kondala is a Lead Consultant in STAS practice at ITC Infotech India Ltd. He holds a degree in Electrical Engineering. He has more than six years of experience in Business Analysis and Project Management for various lines of business that include Telecom, Health, Government and Manufacturing industries.

About the ITC Infotech Business Consulting group

ITC Business Consulting Group provides rich business consulting capabilities across key business functions such as Product Design & Development, Manufacturing & Supply Chain Management, Sales & Service, Loyalty & Customer Relationship Management, etc. The group has expert practices around Enterprise Performance Management, CRM and Loyalty, SCM and Operational Excellence, Auto ID Solutions and Corporate Sustainability. Our domain experts and management consultants bring in expertise of addressing customer needs and problem statements in these areas across verticals such as CPG, Retail, Process & Discrete Manufacturing, Travel & Hospitality, Banking & Financial Services and Logistics & Transportation.

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For more information please write to: contact.us@itcinfotech.com
www.itcinfotech.com