ABSTRACT

Information Technology Portfolio Management (ITPM) is a topic of intense interest in the strategic management of IT. In ITPM, IT synchronization with corporate business strategy is operationalized by the application of the principles of financial portfolio management to IT investments. This perspective is crucial to the continual alignment of business strategy and IT investments. Portfolio management is the discipline of managing projects together as a portfolio that meets stated corporate goals and objectives (Combe & Githens, 1999). It facilitates the optimization of resource allocation and development investment across multiple projects. This chapter investigates current techniques and issues for managing IT project portfolios and aligning those portfolios with the strategy of the business. The models and concepts presented are regarded as a starting point for dialogue and further research among IT project researchers and practitioners.

INTRODUCTION

Projects are used by companies to convert corporate strategy into new services, processes and products needed for the success and viability of the organization (Benko & McFarlan, 2003). Selecting the right projects through which to implement corporate strategy is a critically important process. Yet, selecting projects that support corporate strategy is often cited as an area of extreme weakness in many organizations. This misalignment of strategic planning and tactical operations is particularly acute in many IT organizations today (Bonham, 2005).

According to Rosser (2001), the IT portfolio approach suggests that alignment occurs in three ways. By definition, this approach forces engagement between the business and IT. It raises that engagement from a typically myopic review of...
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individual projects to a more complete review that looks across all projects in the context of a comprehensive business strategy. Finally, the IT portfolio approach greatly reduces the emotional aspects of the project prioritization discussion and replaces it with criteria grounded in the business strategy.

ITPM is becoming an indispensable communication tool that helps business executives understand the visible impact IT operations have on business performance (Archibald, 2003). An IT portfolio is a set of managed technology assets, process investments, human capital assets and project investments allocated to business strategies according to an optimal mix based on assumptions about future performance (Benko & McFarlan, 2003). One of the goals of I TPM is to maximize value and risk tradeoffs in optimizing the organization’s return on investment (ROI).

Under ITPM, all of an organization’s IT projects are placed in a single repository, where the risk and reward of each project is reviewed and quantified. Using these metrics, senior management can then prioritize each project.

Portfolio management is not a new concept for business and IT organizations (Jeffery & Leliveld, 2004). However, in many organizations, portfolio management is typically used as a metaphor for prioritizing projects (Cooper, Edgett, & Kleinschmidt, 1998). Project portfolio management offers much more to the organization than simple project prioritization. Many of the financial analysis tools that financial portfolio managers utilize can be directly applied to the management of IT investments in infrastructure, applications, hardware, people, information, processes and projects. These analytic tools provide a view of investment alternatives based on cost vs. return and link IT investment decisions to business goals and objectives.

ITPM is important because most organizations have more project ideas than they have physical or financial resources to carry them out (Archer & Ghasemzadeh, 1999). In a similar vein, Cooper, Edgett and Kleinschmidt (2000, p. 19) write: “Pipeline gridlock plagues many IT portfolios. There are simply too many projects and not enough resources to do them well.” Anell and Jensen (1998) observed that in-house projects have a tendency to make themselves permanent and that even failed projects show a surprising capacity for survival in many organizations. Existing models of ITPM are designed to help address this project overpopulation problem. However, some authors argue that this is only one side of a two-sided coin, of which the other side involves the active cultivation and nurturing of potential projects before they enter the traditional project portfolio management framework. A similar paradigm shift has taken place in the literature on risk management, in which the traditional view was that all risks are detrimental to projects. Now, the balance of opinion has shifted to acknowledge risk as a source of positive opportunities as well as negative effects (Charette, 2002).

Projects and potential projects typically pass through many stages of screening and prioritization before they are approved. For example, project portfolio management theory determines well-defined project checkpoints (or gates) where projects can be formally or informally challenged against established criteria. These checkpoints are used to determine if a project should be continued, accelerated, put on hold or canceled in the light of changing circumstances. Recent ITPM literature reveals that in many businesses this process is frequently less systematic and less rigorously enforced than portrayed in the models. As a consequence, many organizations are placing an increased emphasis on methodologies and processes that serve to better align projects with business strategy (Artto, Martinsuo, & Aalto, 2001). This disconnection between the corporate strategic direction and the portfolio of projects that will bring that strategy to fruition remains a deep source of concern to many chief executives today (Combe, 1998; Junttila, Ekhholm, & Matilainen, 2001; Sharpe & Keelin, 1998).