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Bridging IT requirements to competitive advantage: The concept of IT value planning

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Abstract

As other investments within an enterprise, information technologies should support the business strategy of a company and provide value to it. IT projects and their requirement engineering must include aspects of competitive gains in accordance to the strategic position of the company. I suggest that IT managers and engineers must take competitive strategy into account when specifying the requirements for a new IT product and check that its operation supports competitive objectives. This paper introduces the concept of IT value planning that portrays the relation between competitive advantage as defined in enterprise strategy and requirements collections as part of IT projects. Furthermore, hypotheses on the links between both variables are presented along with the research approach.

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Keywords: Competitive advantage; Business-IT alignment; IT strategy; requirements; IT value planning

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1. Introduction

In every industry, information technologies play a decisive role regarding operational efficiency and value delivery to customers. Value creation and competitive advantage are treated in a wide variety of publications comprising manifold management disciplines, such as strategic management, innovation management, or value analysis. Besides, numerous papers, IT frameworks, and so-called bodies of knowledge deal with links between information systems and business objectives. Current focus of IT and project management literature is on processes, organizations, roles, responsibilities, resources, competencies, capabilities, tools, techniques, and cultures, but not on artefacts and their connectivity to competitive strategy and requirement engineering^{1, 2, 3}. This paper includes requirements for IT products into the discussion about value and competitiveness, examines the logical context between them, and discloses the dependencies. The literature review in the next section provides brief sights on popular technology management methodologies, explains how they refer to business and strategy, and highlights linkages and gaps. These insights support synthesis of concept of IT value planning that depicts logical links between IT products and competitive advantage and that helps practitioners in planning and inspection of requirements. Objectives and design of ongoing research are presented as well as expected relationships between requirement categories and competitive impacts.

2. Literature review

Portfolio management is applied by companies to meet organizational strategies and to achieve strategic objectives⁴. It is an integral element of the strategic plan of a company. Realization of benefits to the company is a measure of portfolio success. Operations, programs, and projects are components in the layer below a portfolio. Business value increases by effective use of project, program and portfolio management process that help meet strategic goals^{5, 6, 7}. Portfolio management aligns programs and projects to strategy and benefits⁸. Thus, projects are linked to strategy via portfolios or programs.

Depending on size of an organization and the extent of strategic changes, projects might be part of a program or of a portfolio, which organizes programs and projects. The use of portfolio, program, and project management possesses the ability to employ processes to meet strategic objectives and to accomplish higher business value. Whatever structure is appropriate to a major endeavor, each level must support the goals from business strategy. If organizations initiate projects without structuring them under portfolio or program umbrellas, they need to directly derive project objectives from strategy or check for their compatibility to strategic objectives (Figure 1).

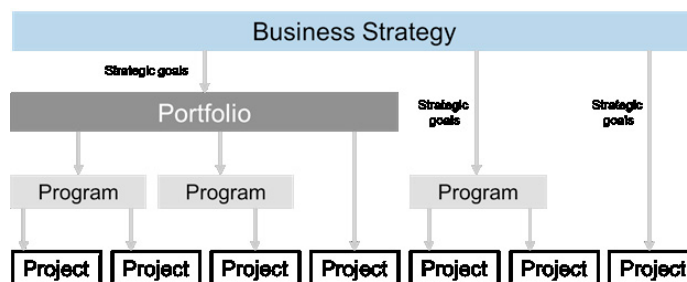


Fig. 1. Project objectives directly derived from business strategy or via portfolio/program

Project failures are frequently a consequence of vague requirements or fuzzy project objectives because of unclear or unknown company strategy. Project managers must know superordinate goals from strategic plans. Empirical data from IT projects show lack of recognition of company objectives. 18 % of questioned IT managers stated that the absence of clear business objectives is the biggest problem. Hence, clarity of business strategy and its consideration by project managers are crucial success factors for IT projects⁹. Through all planning stages, from competitive positioning, as part of strategy development, to requirement analysis, as part of IT project management, cohesion must be maintained and organized to succeed in IT delivery, i.e., to provide more value and therefore to increase competitiveness.

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