

Chapter VI

A Scenarios–Based Methodology for IT Portfolio Planning

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ABSTRACT

One of the main topics in IT Portfolio Management, according to IT Governance models, is to plan and control information systems that are aligned with the company mission and objectives. The goal of the IT Portfolio Planning is to define which information systems are necessary and with which priority. In general, planning methodologies trace directions from a present point to a future and desired target. However, in many cases, companies can not control situations; events may occur that can not be avoided. A scenarios-based planning methodology can help managers to identify future events, their probability and consequences. A scenario represents a future situation that can not be controlled nor can be avoided. However, the study of future scenarios can help managers to plan reactions, so that company can create mechanisms for avoiding problems or for minimizing bad consequences. The goal of this chapter is to present an adaptation of the scenario-based methodology for IT and Information Systems Planning. The chapter will describe in details each step of the proposed methodology and discuss a study case. Steps include the identification of different scenarios and their corresponding antecedent events, the determination of probabilities and consequences of the events, how to calculate risks and how to plan Information Systems and IT resources to manage each scenario.

INTRODUCTION

One of the main topics in IT Portfolio Management, according to IT Governance models, is to plan and control information systems that are aligned with the company mission and objectives. The goal of the IT Portfolio Planning is to define which information systems are necessary and with which priority. In general, planning methodologies trace directions from a present point to a future and desired target. However, in many cases, we are not able to control situations; events may occur that company can not avoid. In this last situation, companies can preview these events and can prepare themselves to manage future and adverse situations.

A scenarios-based planning methodology can help managers to identify future events, their probability and consequences. A scenario represents a future situation that can not be controlled, that is, the company cannot avoid its occurrence. Although a scenario cannot be avoided, they allow managers to trace future directions, so that company can create mechanisms for avoiding problems or for minimizing bad consequences. A potential adverse situation can become an opportunity for a company if this company is prepared for that. For example, the lack of supplies in a specific market is a bad situation in general; but if the company can find alternative supplies, it can overcome its competitors and achieve a better position. The challenge for the company is to preview the situation before competitors and then to prepare itself for the future. Scenarios may be related to a future market (external view) or to an internal status in the company (internal view).

The goal of this chapter is to present an adaptation of the scenario-based methodology for IT and Information Systems Planning. Scenario-based methodologies are usually employed for organization planning. For IT planning, this methodology may be adapted to generate results in terms of Information Systems and IT resources necessities in the future. The chapter will show how this can

be accomplished. It will also describe in details each step of the proposed methodology and discuss a study case. Steps include how to identify different scenarios and their corresponding events, how to determine probabilities and consequences of the events, how to calculate risks and how to plan Information Systems and IT resources to manage each scenario.

BACKGROUND

In general, planning methodologies such as Balanced Scorecard (Kaplan & Norton, 1992; Kaplan & Norton, 1997) trace directions from a present point to a future and desired target. In this case, companies intend to control variables that lead to the goals. If the company accomplishes the variables, goals will be achieved and the desired future will be made real. This kind of planning methodology works with known and controllable variables.

However, in many cases, we are not able to control situations; events may occur that company can not avoid. In this case, companies can preview these events and can prepare themselves to manage future and adverse situations. Although companies can not control or avoid the events, they can plan reactions (for example, contingency plans) so that bad consequences could be minimized. In the same way, companies can proactively prepare their ways and trace directions to react to undesired events. The challenge is to know which events may occur, when they may occur and which their consequences are. This is the goal of a scenarios-based planning methodology. It helps planners to determine which scenarios may affect the company, when and under which degree.

Scenarios do not conflict with other methodologies; they are complementary. Traditional methodologies are useful to determine directions for desired situations and scenarios-based methodologies can help to trace directions for undesired situations. When both kinds are used jointly the

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