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**Chapter XIII**

**Information Technology  
Governance through the  
Balanced Scorecard**

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*The balanced scorecard (BSC) initially developed by Kaplan and Norton, is a performance management system that enables businesses to drive strategies based on measurement and follow-up. In recent years, the BSC has been applied to information technology (IT). The IT BSC is becoming a popular tool with its concepts widely supported and dispersed by international consultant groups such as GartnerGroup, Renaissance Systems, Nolan Norton Institute, and others. Purcciafelli et al. (1999) predict that "by 2003, 60 percent of large enterprises and 30 percent of midsize enterprises will adopt a balanced set of metrics to guide business-oriented IT decisions (0.7 probability)." In this chapter, a generic IT BSC is proposed and its relationship with the business balanced scorecard (BU BSC) is established. It is shown how a cascade of balanced scorecards can support the IT governance process and its related business/IT alignment process. Further, the development and implementation of an IT BSC is discussed and an IT BSC Maturity Model is introduced. The chapter concludes with the findings of a real-life case.*

**INTRODUCTION**

Kaplan and Norton (1992; 1993; 1996a; 1996b) have introduced the balanced scorecard at an enterprise level. Their fundamental premise is that the evaluation of a firm should not be restricted to a traditional financial evaluation but should be supplemented with measures concerning customer satisfaction, internal processes and the ability to innovate. Results achieved within these additional perspective areas should assure future financial results and drive the organization towards its strategic goals while keeping all four perspectives in balance. For each of the four perspectives they propose a three layered structure: 1. Mission (e.g., to become the customers' most preferred supplier); 2. Objectives (e.g., to provide the

customers with new products); 3. Measures (e.g., percentage of turnover generated by new products). The balanced scorecard can be applied to the IT function and its processes as Gold (1992; 1994) and Willcocks (1995) have conceptually described and has been further developed by Van Grembergen and Van Bruggen (1997), Van Grembergen and Timmerman (1998) and Van Grembergen (2000).

## IT BALANCED SCORECARD

In Figure 1, a generic IT balanced scorecard is shown. The *User Orientation* perspective represents the user evaluation of IT. The *Operational Excellence* perspective represents the IT processes employed to develop and deliver the applications. The *Future Orientation* perspective represents the human and technology resources needed by IT to deliver its services over time. The *Business Contribution* perspective captures the business value created from the IT investments.

Each of these perspectives has to be translated into corresponding metrics and measures that assess the current situation. These assessments need to be repeated periodically and aligned with preestablished goals and benchmarks. Essential components of the IT BSC are the cause-and-effect relationships between measures. It enables the connections between the measures to be clarified in order to determine two key types of measures: outcome measures and performance drivers. A well developed IT scorecard contains a good mix of these two types of measures. Outcome measures such as programmers' productivity (e.g., number of function points per person per month) without performance drivers such as IT staff education (e.g., number of educational days per person per year) do not communicate how the outcomes are to be achieved. And performance drivers without outcome measures may lead to significant investment without a measurement indicating whether the chosen

Figure 1 Generic IT balanced scorecard

| USER ORIENTATION   | BUSINESS CONTRIBUTION  |
|--|--|
| <p>How do users view the IT department?</p> <p><b>Mission</b><br/>To be the preferred supplier of information systems.</p> <p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>• Preferred supplier of applications</li> <li>• Preferred supplier of operations vs proposer of best solution, from whatever source</li> <li>• Partnership with users</li> <li>• User satisfaction</li> </ul> | <p>How does management view the IT department?</p> <p><b>Mission</b><br/>To obtain a reasonable business contribution from IT investments.</p> <p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>• Control of IT expenses</li> <li>• Business value of IT projects</li> <li>• Provision of new business capabilities</li> </ul>                                  |
| OPERATIONAL EXCELLENCE   | FUTURE ORIENTATION   |
| <p>How effective and efficient are the IT processes?</p> <p><b>Mission</b><br/>To deliver effective and efficient IT applications and services.</p> <p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>• Efficient and effective developments</li> <li>• Efficient and effective operations</li> </ul>  | <p>How well is IT positioned to meet future needs?</p> <p><b>Mission</b><br/>To develop opportunities to answer future challenges.</p> <p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>• Training and education of IT staff</li> <li>• Expertise of IT staff</li> <li>• Research into emerging technologies</li> <li>• Age of application portfolio</li> </ul> |

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