Chapter 10
Developing Strategic Capability Through Business Intelligence Applications: A Case Study From the German Healthcare Insurance Industry

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ABSTRACT

Company performance can be measured at all levels across an organization, and in the German healthcare industry, business intelligence systems play a crucial role in achieving this. For one major health insurance company (discussed here as an alias—AK Healthcare), the deployment of business intelligence applications has supported sustained growth in turnover and market share in the past five years. In this chapter, these tools are classified within an appropriate conceptual framework which encompasses the organization’s information infrastructure and associated processes. Different components of the framework are identified and examples are given: systems infrastructure, data provision/access control, the BI tools and technologies, report generation, and information users. The use and integration of business intelligence tools in the strategy development process is then analyzed, and the key functions and features of these tools for strategic capability development are discussed. Research findings encompass system access, report characteristics, and end-users’ capabilities.

INTRODUCTION

Many companies have made significant investment in enterprise-wide information systems in an attempt to work faster and smarter. However, software packages such as Enterprise Resource Planning (ERP), Customer Relationship Management (CRM) and Supply Chain Management (SCM) systems often produce large amounts of data but little information. Companies are beginning to explore the potential of
new Business Intelligence (BI) products and technologies, which can exploit their corporate databases to improve management control and assess the impact of key business decisions. A sound technology platform that supports integrated information systems is a key requirement that needs addressing as a company expands. To harness the full potential of corporate knowledge, the use of BI tools will be necessary in most market environments. Sound core systems and effective BI tools deployment are the pre-requisites for the management of corporate knowledge relating to new market and product development, quality standards enhancement and process improvement.

BI information and its exploitation for key decision-making can play a vital role in underpinning strategic choice and corporate profitability. Operational data must be processed, analysed and reported in order to control and measure the performance of a company and its management. Effective and timely business information is recognized as being essential for organizations to succeed, but also simply to exist in today’s rapidly changing and challenging business environment (Lönnqvist & Pirttimäki, 2006). According to Pisello & Strassman (2003), companies can gain competitive advantage not just by focusing on implementing new technologies, but also by deploying technology to share, manage, and increase the level of knowledge throughout the organization.

To improve the BI process, senior management should be cognizant of the effects and impact of BI on their organization – and they can also be key players and stakeholders in the integration of BI tools into the strategy development process. Company performance can be comprehensively measured at all levels across an organisation, but BI tools can contribute to the management of knowledge in certain key strategic areas. They can be used to improve the way internal business processes are executed so that an organization performs the same activities better than its competitors (Hemmatfar, Salehi, & Bayat, 2010). They may also be applied to performance management to allow organizations to track, understand, and manage vital business information. Such improvements increase employee and customer satisfaction, quality and productivity, and decrease time to market.

This research focuses on the capabilities of Business Intelligence (BI) tools and technologies to support strategic knowledge management that enhances competitive advantage. It explores which BI technologies and tools are currently used within AK Healthcare (AKH), how they are used, how they can be classified, their interaction with the strategy development process, and the key elements of these tools that support effective knowledge management. The objectives of BI deployment are discussed and relevant BI products for AKH are reviewed.

THEORETICAL FRAMEWORK

Since Zuboff (1988) introduced the concept of automate-informate-transformate as a sequential process for applying technology in business, there have been many definitions and classifications of systems providing management information as the link between manual process automation and radical business transformation. The concept of management information systems (MIS) was central to many information systems strategies in the 1990s to “provide information for managing an organization” (Alter, 2002), by extracting and summarising data from transaction processing systems. Peppard (1993) took these concepts further by developing a grid for viewing application portfolios from a strategic perspective, and the early focus on mainly financial information was expanded to include a broader range of information to plan and control business operations. The balanced scorecard (Kaplan and Norton, 1992), for example, contains not only a financial view of a company, but also the customer view, internal operational infor-