Chapter 2
Implementing Business Intelligence in Contemporary Organizations

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ABSTRACT

This chapter introduces the implementation of Business Intelligence (BI), thus explaining the application overview of BI, the components of BI, the practical implementation of BI, the business value of BI, the trends in implementing BI, and the guidelines for implementing BI. BI is a broad category of business applications and technologies for gathering, providing access to, and analyzing data for the purpose of helping business enterprise users make better business decisions. BI enlarges business performance, thus leading to higher level of efficiency, better quality outputs, better marketing decisions, and lessened risk of business failure in order to gain a competitive advantage in the global business environments. It is important to create and develop a BI system to enable the useful transformation of information into the valuable knowledge for enhancing BI in organizations. Implementing BI will increase organizational performance and achieve business goals in modern business.

INTRODUCTION

BI is an emerging technology that helps executives and managers manage information and data in an efficient way. BI helps executives and managers in organizations to convert gathered information into valuable knowledge within business architecture which can be used to make better business decisions in the global business environments. This will provide the organizations a competitive advantage in modern business. The business environment continually evolves into a more complicated system; with global competition, decision making in organizations has become increasingly sophisticated (Kapoor & Sherif, 2012). BI and data analytics assist in making informed decisions based on knowledge extracted from business data and choices. Organizations that have favorably implemented BI are able to make business decisions to meet their business goals and objectives. BI encompasses people skills, technologies, business applications, and business processes to make

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better strategic and tactical business decisions in achieving competitive advantage over competitors in a challenging economy (Kapoor, 2010; Kapoor & Sherif, 2012).

As the popularity of the Internet grows, it is widely recognized that information is an important external resource (Hua, Huang, & Yen, 2012). The Internet is a rich repository for the information resources that enable people to solve problems by applying the business results obtained from selective and analytical searches. BI is a necessary activity for deriving improved business performance. BI consists of a dynamic set of business processes and practices enclosed in organizational individuals, groups, and organizational structures (Sharma & Djiaw, 2011). This chapter introduces the implementation of BI, thus explaining the application overview of BI, the components of BI, the practical implementation of BI, the business value of BI, the trends in implementing BI, and the guidelines for implementing BI.

BACKGROUND

BI is a functional process by which knowledge is created, captured, shared and leveraged (Foo, Sharma, & Chua, 2007). BI is a significant component of a modern enterprise's information infrastructure, thus building business success and competitiveness in digital age (Davenport, Harris, & Morison, 2010). BI has emerged from the central part of business strategy for a sustainable business success (Ranjan, 2008). BI refers to a computer-based technique used in analyzing business data such as sales revenue by products, by departments, and by associated costs. Improving the productivity of knowledge workers is one of the most important challenges for organizations that face the business transition from an industrial economy to an economy based on information and knowledge (Drucker, 1999). The key to this business transition is an understanding of the global marketplace. However, most BI efforts have failed to address this problem, and have resulted in business solutions for information management instead (Lee & Kim, 2001; Malhotra, 1999). In addition, organizations have failed to realize the full potential of BI and knowledge management tools to increase business performance (Massey & Montoya-Weiss, 2002; Anantatmula & Kanungo, 2005; Lee, Lee, & Kang, 2005).

IMPLEMENTING A BUSINESS INTELLIGENCE

This section introduces the application overview of BI, the components of BI, the practical implementation of BI, the business value of BI, the trends in implementing BI, and the guidelines for implementing BI.

Application Overview of Business Intelligence

The term "business intelligence" is originally coined by business consultants of Gartner Group since 1996 (Anandarajan, Srinivasan, & Anandarajan, 2003). Many stakeholders (i.e., consultancies, software vendors, practitioners, and scientific communities) have used the term "business intelligence" to describe business processes and systems concerning a structural analysis of organizations in a competitive environment (Bucher, Gericke, & Sigg, 2009). According to Adelman, Moss, and Barbusinski (2002), BI encompasses a broad range of analytical business solutions for gathering, consolidating, analyzing and providing access to information supposed to let the business enterprise users make better business decisions. BI is used to manage the organizational capabilities (Negash, 2004). BI describes the result of in-depth analysis of detailed business data, database, and application technologies (Gangadharan & Swamy, 2004).

Stackowiak, Rayman, and Greenwald (2007) defined BI as the process of taking large amounts of data, analyzing that data, and presenting a