



## Chapter II

# Business Intelligence: Benefits, Applications, and Challenges

**Stuart Maguire**  
*Sheffield University, UK*

**Habibu Suluo**  
*Sheffield University, UK*

### ABSTRACT

*The main aim of this chapter is to identify the important role of business intelligence in today's global business environment and to reveal organizations' understanding of business intelligence and how they plan to use it for gaining competitive advantage. Increases in business volatility and competitive pressures have led to organizations throughout the world facing unprecedented challenges to remain competitive and striving to achieve a position of competitive advantage. The importance of business intelligence (BI) to their continued success should not be underestimated. With BI, companies can quickly identify market opportunities and take advantage of them in a fast and effective manner. The aim of this chapter is to identify the important role of BI and to understand and describe its applications in areas such as corporate performance management, customer relationship management and supply chain management. The study was conducted in two companies that use BI in their daily operations. Data were collected through questionnaires, personal interviews, and observations. The study identified that external data sources are becoming increasingly important in the information equation as the external business environment can define an organization's success or failure by their ability to effectively disseminate this plethora of potential intelligence.*

### INTRODUCTION

The main aim of this chapter is to identify the important role that business intelligence can play

in future dynamic business environments. It is also important to reveal organizations' understanding of business intelligence and how they plan to use it for gaining competitive advantage.

Two case companies were used to underpin this study and both companies have already implemented enterprise resource planning (ERP) and use business intelligence in their daily operations. Ideally, intelligence research should be driven by business needs. However, only sparse information on how business intelligence is currently used in the business sector is currently available to the research community. The objectives of this chapter are:

1. To identify the important role of business intelligence (BI) and to understand and describe its applications
2. To find out how some companies understand BI and how they believe they can use it for gaining competitive advantage
3. To attempt to identify a future research agenda for BI in an organizational context

This is generally regarded as the information age and it could be argued that business intelligence is taking an increasingly important role in business development. It is not the aim of this chapter to isolate the differences between data, information, knowledge, and intelligence although it is useful to debate some of their qualities. Succeeding in business depends on how well you know your customers, how well you understand your business processes, and how effectively you run your operations. Increasingly, effective control of the supply chain process is differentiating world-class organizations from the also-rans. The improved provision of intelligence will facilitate these processes.

The need for up-to-date, accurate information is crucial for an organization's decision making. It could be argued that the decision making process depends on the nature of the organization; its marketing niche; how progressive it is in grasping new opportunities; its philosophy on conducting business at all management levels and its effective use of information (Wysocki & DeMichiell, 1997). Knowing where to find information is often

the key to success and it is argued that increasing economic pressure pushes companies towards the need to continually gain the competitive edge over similar organizations (Burke, 1995). Thus, the search for current information and intelligence is a vital ingredient towards the future success of a business.

In a recent study, the Economist Intelligence Unit (EIU, 2005) conducted an online survey of 122 senior executives in Western Europe, 68 of whom were based in the UK. Two-thirds of the companies in the survey complained that while their information systems generated huge volumes of data, executives could not act on much of it. It was generally felt that too much information could be impeding decision-making. Over half (55%) of the executives said that information technology's (IT) failure to prioritise information was the main barrier to effective decision-making (EIU, 2005; Savvas, 2005). This is one significant finding as far as this study is concerned. Simply providing access to an ocean of information, assisted by IT, is not enough; executives need knowledge delivered in a form they can quickly interpret and act on.

The volatile increases in competitive pressures have forced businesses throughout the world to face unprecedented challenges to remain viable while striving to achieve sustainable growth. Consequently the importance of business intelligence to their potential survival should not be underestimated. With business intelligence, companies can quickly identify market opportunities and take advantage of them in a fast and effective manner. However, according to some writers (Vitt, Luckevich, & Misner, 2002), more and more organizations are realising that becoming increasingly "rich" in data does not necessarily result in a better understanding of their business and markets or even provide improvements in operational performance. It is argued that the most successful companies are those that can respond quickly and flexibly to market changes and opportunities with an effective and efficient

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