2 Importance of Data in Decision-Making

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Abstract. The ability to make effective decisions is crucial to an organization’s survival in today’s tumultuous business environment. In order for firms to evaluate alternatives and make informed choices they must have reliable and timely data upon which to make their decisions. Consequently, the development of effective data management techniques is of central importance to an organization. Yet, many firms are learning that this is no easy task as they find themselves inundated with nearly overwhelming amounts of data. Assessing the specific data management issues firms face and the development of an effective methodology to address these issues is a central focus of this chapter. Specifically, this chapter explores data management from a cybernetic approach and focuses on methods of transforming various forms of structured and semi-structured data into structured, useful data that an organization can utilize to make effective, informed decisions.

2.1 Introduction

Organizations have faced a complex and tumultuous environment over the last decade. Consumer confidence has been significantly eroded as scions of industry have crumbled under the weight of unethical and often illegal business practices. The age of electronic commerce, ushered in by the advent of the World Wide Web, enjoyed a brief reign, which ended when stakeholders began to demand outdated “old economy” standards such as
corporate profitability and returns on investments. The resulting volatility of the current landscape was reflected in the Dow Jones Industrial Average that hit heights above 11,000 and reached lows below 8,000. The end of the 1990s witnessed billions spent to defend against the impending Y2K disaster, which left unresolved the issue of whether the catastrophe would have happened in the first place. The times saw government taking on big business in the form of a federal antitrust suit with neither side emerging as the clear winner. Many organizations intrinsically assumed to be going concerns are now struggling just to survive.

The accounting profession has not escaped being significantly affected by these turbulent times. Indeed, the destruction of Enron and implosion of Arthur Anderson are the largest, but by no means the only, contributors to the current chaotic marketplace. Global Crossing, WorldCom, and a host of other organizations stand accused of fraud, deception, and corporate mismanagement. WorldCom, accused of committing fraud totaling in the billions, has filed for bankruptcy and even changed its name in an effort to separate itself from its checkered past. There has been a public opinion backlash against business in general, and the accounting professions specifically, which has had and continues to have significant repercussions (Resnick, 2002). The Federal government has responded with investigations, official inquiries, and the formation of the Sarbanes-Oxley Act of 2002, which has been referred to as “the most significant legislation affecting the accounting profession since the Securities Act of 1933” (Latshaw, 2003). Many organizations are reemphasizing their dedication to ethical practices and attempting to assure the public that this dedication is embraced across the enterprise (Blank et al., 2003). There is an increased scrutiny by all interested stakeholders into the accounting and management practices of organizations (Blackhouse, 2002). More attention then ever before is being given to the decisions made by these organizations and the factors that led up to these decisions.

At the core of every business transaction, every contract negotiation, every exchange of goods or services, exist a myriad of decisions made to achieve that result. “Should we lower prices to stay competitive or raise them to increase profits? Should we continue to outsource or learn to develop in-house? FIFO, FIFO, or weighted average?” The engine of business runs on timely and effective decisions, yet the reality is that half the decisions organizations make fail (Nutt, 1999). Businesses may avoid making these poor choices and make better decisions through basing these decisions on the foundations of accurate, timely, and relevant information. Inaccurate information is an expense that few businesses can afford, since the “garbage in, garbage out” problem has costly ramifications (Dubois, 2002). More often than not, the accuracy of the information is largely dependent on the timeliness of the information. In an environment where it is