Chapter IX

Data Quality: An Assessment

Jeretta Horn Nord, Oklahoma State University, USA
G. Daryl Nord, Oklahoma State University, USA
Hongjiang Xu, Central Michigan University, USA
Elizabeth S. Myrin, Oklahoma State University, USA

Abstract

This chapter presents results from a large-scale survey of Australian CPA members regarding data quality. The research investigates and reports major stakeholders’ opinions on the importance of critical success factors affecting data quality and the actual performance on each of those factors. The results reveal whether dissimilarly sized organizations differ in the way they measure the importance and performance of critical success factors for data quality in accounting information systems.
Introduction

Companies lose billions of dollars annually due to poor data quality (DQ). Regardless of the organization’s size, data quality issues impact its information system. With the proliferation of data warehouses, communication and information technology managers have experienced an increase in their awareness of and need for high DQ (Lee, Strong, Beverly, & Wang, 2002). Dirty data can damage every aspect of a business (D’Agostino, 2004). Thus, DQ has been rated as a top concern to data consumers (Wang, 1996) and reported as one of the six categories commonly employed in management information systems research (Delone & McLean, 1992).

More and more electronically captured information requires processing, storage, and distribution through information systems (Siau, Lim, & Shen, 2001). Advances in information technology (IT) have dramatically increased the ability and capability to process accounting information. At the same time, however, it presents issues that traditional accounting systems have not experienced. Real-world practice suggests that DQ problems are becoming increasingly prevalent (Huang, Lee, & Wang, 1999; Redman, 1998; Wang & Wang, 1996). The traditional focus on the input and recording of data needs to be offset with recognition that the systems themselves may affect the quality of data (Fedorowicz & Lee, 1998). If DQ issues have not been addressed properly, IT advances can sometimes create problems rather than benefit the organization. Most organizations have experienced the adverse effects of decisions based on information of inferior quality (Huang et al., 1999). The number of errors in stored data and their consequent organizational impact are likely to increase in number (Klein, 1998). Inaccurate and incomplete data may adversely affect the organization’s competitive success (Redman, 1992). Indeed, poor quality information can have a significant social and business impact. For example, NBC News reported that dead people still eat! Because of outdated information in U.S. government databases, food stamps continued to be sent to recipients long after they died. Fraud from food stamps costs U.S. taxpayers billions of dollars each year (Huang et al., 1999). Another example from a business perspective occurred when a financial company absorbed a huge net loss, totaling more than $250 million, when interest rates changed dramatically and the company was caught unaware due to poor data handling (Huang et al., 1999).

Examples of the consequences of poor DQ in AIS are also common. Errors in an inventory database may cause managers to make decisions that generate overstock or understock conditions (Bowen, 1993). One minor data entry error such as the unit of product/service price could go through an organization’s AIS without appropriate DQ checks and cause financial losses and damage to the organization’s reputation. Therefore, DQ has become crucial for the success of accounting information systems (AIS) in today’s IT age.
Related Content

Methodology Evaluation Framework for Component-Based System Development
[www.igi-global.com/article/methodology-evaluation-framework-component-based/3288?camid=4v1a](www.igi-global.com/article/methodology-evaluation-framework-component-based/3288?camid=4v1a)

Mediating RDF/S Queries to Relational and XML Sources
[www.igi-global.com/chapter/mediating-rdf-queries-relational-xml/7933?camid=4v1a](www.igi-global.com/chapter/mediating-rdf-queries-relational-xml/7933?camid=4v1a)

OOXKSearch: A Search Engine for Answering XML Keyword and Loosely Structured Queries Using OO Techniques
[www.igi-global.com/article/ooxksearch-search-engine-answering-xml/4123?camid=4v1a](www.igi-global.com/article/ooxksearch-search-engine-answering-xml/4123?camid=4v1a)
Using Weakly Structured Documents to Fill in a Classical Database
Frederique Laforest and Andre Flory (2001). Journal of Database Management (pp. 3-13).
www.igi-global.com/article/using-weakly-structured-documents-fill/3260?camid=4v1a