Chapter XV

Data Quality and Work Alignment:  
Do IT Professionals Think Differently?  

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Abstract  

Organisational decision-makers have experienced the adverse effects of decisions based on information of inferior quality. Millions of dollars have been spent on information systems to improve data quality (DQ) as well as the skills and capacity of IT professionals. It is an important issue that the IT professionals align their work within the expectation of the organisation’s vision. This chapter provides some theoretical background to DQ and establishes a link between DQ, performance-importance analysis and work alignment. Four case studies are presented to support the theory developed in this chapter and to answer the question as to whether the IT professionals consider DQ issues differently from other information users.  

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**Introduction**

There is one thing we can all agree on when it comes to discussing the recent advances in information technology (IT). IT has dramatically changed the way in which business operates. The Internet, for instance, brings with it ubiquitous connectivity, real-time access to information and allows the organisation to communicate instantly with customers, suppliers and partners (El Sawy, 2001). More and more electronically captured information needs to be processed, stored, and distributed through IT-based business systems. Information is shared amongst various decision makers within organisations and between supply chain partners not only to benchmark, amend or formulate competitive strategies but also to control day-to-day operations and to solve problems on a real-time basis (Al-Hakim, 2003a).

On the other hand, IT advances can create problems rather than benefiting the organisation, if data quality (DQ) issues have not been properly addressed. Although software bugs and facility catastrophe are likely to be widely reported, by far the most common source of business failure is data quality (Laudon & Laudon, 2002). Firms become so critically dependent on information that DQ problems must be identified and treated as urgently as possible.

There is strong evidence to suggest that DQ has become a critical concern of organisations (Lee et al., 2002; Redman, 1998; Wand & Wang, 1996). The growth of data warehouses, communication and information technologies have increased the need for, and awareness of, high DQ in organisations (Lee et al., 2002). DQ has been rated as a top concern to data consumers (Wang, 1996) and reported as one of six categories commonly employed in management information systems research (Delone & McLean, 1992).

Zero defects in information systems of any complexity cannot be achieved and there are technological barriers to perfect information systems. According to Huang et al. (1999) most chief executive officers (CEOs) have experienced the adverse effects of decisions based on information of inferior quality. At the same time, most chief information officers have experienced the discomfort of explaining why, in light of the costly investment made by the company in information technology, these data are of inferior quality.

Many firms strive to satisfy the organisational need for DQ. “All too often, however, DQ is not delivered or is not accessible to the user. *This does not have to be so*” (Huang et al., 1999, p. 9).
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