

Chapter 5.13

Assessing Information Technology Capability vs. Human Resource Information System Utilization

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INTRODUCTION

The ever-increasing capabilities of human resource information technology (HRIT) and human resource information systems (HRIS) have presented HR departments with an opportunity to generate and analyze vast amounts of employee information that could potentially be used for strategic decision-making purposes and to add value to the HR department and ultimately the entire organization. Research in this area has frequently highlighted that most organizations merely deploy HRIT to automate routine administrative tasks. In general, these studies assume the existence of IT capabilities and sophistication without further investigating what these consist of

and how or whether existing IT capabilities could be related to the different uses of HR information, that is, strategic decision-making as opposed to automation. In this article, we introduce and discuss a model that aids the categorization of firms regarding their HRIT capabilities vs. their use of HR information. Furthermore, we will explore the factors that determine the utilization of HR information for strategic decision-making purposes.

BACKGROUND

As organizations continuously strive to become more competitive and to reduce operating costs, the pressure on the human resource (HR) function to add value to the organization is mounting. A growing number of organizations are introduc-

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ing a variety of information and communication technologies (ICT), including interactive voice response (IVR), intranet, self-service HR kiosks, e-HRM (electronic human resource management), and HRIS to achieve just that. The consultation of any practitioner based journal or consultancy reports on that topic will illustrate the range of technologies available, the array of applications, and the plethora of providers of these technologies. We will refer to these HR related ICTs as HRIT throughout the article to simplify matters. Some authors have suggested that the introduction of these types of technologies have presented HR departments with an opportunity to evolve from cost centers into profit centers (Bussler & Davis, 2001; Groe, Pyle, & Jamrong, 1996; Hannon, Jelf, & Brandes, 1996). Others have advocated that IT has the ability to revolutionize the HR function and to transform it into a strategic business unit (Broderick & Boudreau, 1992; Lepak & Snell, 1998). Yet, research has shown that most organizations appear to actuate technology merely to automate routine administrative tasks (Ball, 2001; Groe et al., 1996; Kinnie & Arthurs, 1996; Yeung & Brockbank, 1995).

A host of authors from different disciplines, for instance HR management, strategic management and IT management, have attempted to classify HRIT applications by their purpose, that is, automation vs. strategic decision-making. A number

of these classifications are presented in Table 1. Upon observation, it becomes evident that most of these categorizations derive from Anthony's (1965) three levels of management—operational, managerial, and strategic. On a timescale of decision-making, the functional dimension is considered to be short-term, the managerial to be intermediate and the strategic to be long-term, respectively.

Zuboff (1988), for instance, refers to three increasing levels of IT utilization—"automating," "informating," and "transformating"—whereby "informating" entails generating information and using this information to support strategic decision-making, while "transformating" refers to the complete transformation of the organization utilizing IT. Kavanagh, Gueutal, and Tannenbaum (1990) place HRIT utilization on a continuum from file storage to decision making (Table 1). These categories are mirrored in Broderick and Boudreau's (1992) classification. Beckers and Bsat (2002) propose a five-step decision support system (DSS) classification model to assess whether an HRIS can provide an organization with a competitive advantage, while Martinsons (1994) simply divides HRIT usage into sophisticated and unsophisticated applications. Hendrickson (2003) asserts that HRIS utilization could potentially lead to increases in efficiency and effectiveness, while also enabling activities that

Table 1. HRIT classification summary

Three Levels of Management (Anthony, 1965)	Operational		Managerial		Strategic
Classifications of HRIT Applications in the Literature					
Zuboff (1988)	"automating"		"informating"		"transformating"
Kavanagh et al. (1990)	electronic data processing		management information systems		decision support systems
Broderick et al. (1992)	transaction processing		expert advice		decision support
Beckers et al. (2002)	MIS	DSS	Group DSS	Expert Systems (ES)	Artificial Intelligence
Martinsons (1994)	Unsophisticated			sophisticated	

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