Chapter XI

Managing Knowledge in an ERP Enabled Virtual Organisation

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Introduction

When is a virtual organisation really virtual? One definition would suggest that organisations are virtual when producing work deliverables across different locations, at differing work cycles, and across cultures (Gray and Igbaria, 1996; Palmer and Speier, 1998). Another suggests that the single common theme is temporality. Virtual organisations centre on continual restructuring to capture the value of a short-term market opportunity and are then dissolved to make way for restructuring to a new virtual entity. (Byrne, 1993; Katzy, 1998). Yet others suggest that virtual organisations are characterised by the intensity, symmetricality, reciprocity and multiplexity of the linkages in their networks (Powell, 1990; Grabowski and Roberts, 1996). Whatever the definition there is a consensus that different degrees of virtuality exist (Hoffman, Novak and Chatterjee, 1995; Gray and Igbaria, 1996; Goldman, Nagel and Preiss, 1995) and within this, different organisational structures can be formed (Palmer and Speier, 1998; Davidow and Malone, 1992, Miles and Snow, 1986). Such structures are normally inter-organisational and lie at the heart of any form of electronic commerce. Yet the organisational and management processes which should be applied to ensure successful...
implementation have been greatly under-researched (Finnegan, Galliers and Powell, 1998; Swatman and Swatman, 1992).

There is even less guidance provided with respect to the management of change in organisations that embrace some degree of virtuality by leveraging their competencies through effective use of information and communication technologies (ICT). It could be argued that there is a degree of virtuality in all organisations but at what point does this present a conflict between control and adaptability? Is there a continuum along which organisations can position themselves in the electronic marketplace according to their needs for flexibility and fast responsiveness as opposed to stability and sustained momentum? To what extent should the organisation manage knowledge both within and without the organisation to realise a virtual work environment?

The ability of the organisation to change or to extend itself as a virtual entity will reflect the extent to which an understanding of these concepts has been embedded into the knowledge management of the virtual organisation as a Virtual Organisational Change Model (VOCM). Managing these change factors is essential to gain and maintain strategic advantage and to derive virtual value. The authors expand these concepts by using the example of organisations that are using SAP R/3 enterprise resource planning software (ERP). Central to the discussion is the strategy of Virtual Organising (as defined by Venkatraman and Henderson, 1998) of ERP enabled organisations as they extend their scope across three vectors to enable virtual encounters, virtual sourcing, and virtual work. This is specifically explored within the context of knowledge management through the exploitation of ERP software integrated with Internet technology.

This chapter proceeds as follows. A broad definition of virtual organisations is provided which highlights the need for a strategy to manage dynamic change. This is followed by the development of a model for managing such change and extended into a Virtual Organising model for ERP based organisations. This model is central to the discussion of knowledge management within the ERP context. Finally, the challenges that face virtual organisations are addressed, and solutions are proposed for the future.
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