

## Chapter 6.12

# Competence of Information Technology Professionals in Internet-Based Ventures

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### ABSTRACT

This chapter articulates the knowledge and skills required by IT professionals in young Internet-based firms. Building on the general IT governance principle of aligning business and IT, it introduces an adequate competence model, outlines its dimensions, and suggests a framework for modeling the effects of factors internal and external to the firm on the value propositions of the different dimensions. The authors hope that a comprehensive understanding of the role of IT-related competence will assist founders not only in finding suitable partners, but also in aligning e-business strategy and information technology in Internet-based ventures.

### INTRODUCTION

The growing relevance of information technology (IT) and, in particular, the proliferation of the Internet, has resulted in a new economic dimension that is characterized by new possibilities of creating value (Lumpkin & Dess, 2004). The so-called *Net Economy* inevitably facilitates various possibilities for developing innovative business concepts and realizing them by founding a new company (Kollmann, 2006; Kollmann & Häsel, 2006). In newly found ventures, founder competence represents a significant preceding indicator for success (Baum, Locke & Smith, 2001; Chandler & Jansen, 1992). Internet-based ventures are mostly established by heterogeneous teams of founders incorporating knowledge and

skills from both the areas of business administration and information technology (Kollmann, 2006; Kollmann & Häsel, 2007). In particular, the founding team usually comprises at least one partner with a business background and one IT professional, as obtaining the required competence from external market participants is oftentimes unfeasible due to a lack of financial resources.

From an IT governance perspective, the choices regarding the acquisition, training and development of the individual competencies required to effectively manage and operate the IT infrastructure are of particular interest (Henderson & Venkatraman, 1999; Van Grembergen, De Haas & Guldentops, 2004). In fact, one important element of IT governance is the governance of human IT resources, that is, the knowledge and skills held by the IT employees of the firm (Gottschalk, 2006; Weill & Ross, 2004). Although the definitions of IT governance differ on some aspects, they are all focused on the link between business and IT (Van Grembergen et al., 2004). Within the Net Economy, IT governance is more complex than the traditional alignment of business and IT, as IT is integrated into business activity and thus the technological, managerial and organizational influences of e-business need to be understood (Patel, 2004). Accordingly, to explain successful venturing activities in the Net Economy, a comprehensive understanding of the various competencies involved is required. In practice, a deeper competence understanding could assist founders not only in finding suitable partners, but also in aligning e-business strategy and information technology.

From a researcher's perspective, the competence of IT professionals in Internet-based ventures is largely unexplored. Although entrepreneurship scholars have intensively explored the concept of competence among entrepreneurs and its various dimensions (Chandler & Jansen, 1992; Chandler & Hanks, 1994; Man, 2002), these competence concepts fail to describe the various fields of professional knowledge required

by IT professionals in Internet-based ventures. In a broader context, information systems (IS) literature has widely elaborated on IT/IS-related competence concepts, including the skills and knowledge required by IS professionals (Lee, Trauth & Farwell, 1995), the business competence of IT professionals (Bassellier & Benbasat, 2004), the IT competence of business managers (Bassellier, Benbasat & Reich, 2003), the competence of CIOs (Earl & Feeny, 1994) as well as the core IS capabilities on an organizational level (Feeny & Willcocks, 1998). However, studies such as these display on a more general approach of describing IT/IS-related competence and fail in capturing the particularities that IT professionals experience in Net Economy founding teams. In this regard, a number of authors point out that there is a lack of studies on the competencies that are required in e-business environments (Matlay, 2004; Sgobbi, 2002).

Similarly, questions of IT governance in the context of Internet-based ventures have not been answered yet (Peterson, 2004). In particular, despite the fact that Internet-based businesses are highly dependent on information technology, the value proposition of IT-related competencies remains unclear. While the strategic role of the CIO is widely recognized in IS literature (Henderson & Venkatraman, 1999; Sambamurthy, Bharadwaj & Grover, 2003), this is not the case for IT professionals engaged in co-founding Internet-based ventures. Human capital theory suggests that the potential value contribution of a partner depends on her competence to solve the tasks and problems that are connected with her job profile (Youndt, Snell, Dean, Jr. & Lepak, 1996). In this connection, a matter of particular interest is how business and IT people *actually* contribute to value creation and how they *perceive* the contribution of their distinct competencies, as in practice – despite the fact that both business and IT people contribute essential competence to the firm (Kollmann & Häsel, 2007) – an unequal distribution of shares can be observed in many

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