Chapter 7
Learning in Networks of SMEs: A Case Study in the ICT Industry

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ABSTRACT
This paper contributes to the debate on the participation of SMEs in voluntary business networks by framing the relationship between the different types of network-based learning. Learning about networking, which concerns the capability to set, manage, and terminate a strategic alliance, is opposed to learning by networking, which involves the sharing and the joint creation of technical knowledge. The proposed framework is tested in the case of a network of Italian SMEs in the ICT sector. Empirical evidence confirms that learning about networking enables learning by networking and helps to balance those tensions and conflicts that inevitably mark the existence of inter-firm networks. Learning about alliance management provides networked IT entrepreneurs with the capabilities to compete against larger competitors. As learning paths also drive the evolution of inter-firm alliances, networked entrepreneurs would benefit from choosing collective goals in line with their alliance management capabilities.

INTRODUCTION
Thanks to the promise of providing a suitable and timely response to intense and rapid change, inter-organisational networks have gained considerable attention by researchers, business companies and institutional actors (Doz & Hamel, 1998; Parkhe et al., 2006). A growing body of literature has examined the formation of inter-firm linkages (Gulati, 1995; Ahuja, 2000; Park & Zhou, 2006), the governance structure of networks (Jones et al., 1997; Rowley et al., 2000), the dynamics of relationships among network participants (Hite & Hesterly, 2001; Kim et al., 2006) and the im-
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pact of networking on firm performance (Bell, 2005; Goerzen, 2007). Prior studies suggest that strategic alliances and networks are powerful means to face intense and dynamic knowledge-based competition. They represent cost- and time-effective alternatives to the purchase or the in-house development of proprietary resources (Grant, 1996) without compromising autonomous decision-making at the firm level (Street & Cameron, 2007). However, participation in networks also exposes members to the risk of opportunistic behaviour by partners and requires the development of alliance management capabilities (Kale et al., 2000; Pisano, 1990; Ireland et al., 2002).

The use of alliances and networks as means to overcome the constraints imposed by limited resources makes those solutions particularly attractive for small and medium enterprises (SMEs). Nevertheless, the available evidence on networks mainly focuses on alliances among large players (see e.g., Browning et al., 1995; Doz, 1996; Simonin, 1997; Kale et al., 2000; Gogan et al., 2007) or local networks of socially and economically intertwined smaller actors in industrial districts (Pyke et al., 1990). Only recently researchers have started to provide evidence on networks of non-district SMEs (for a recent survey see Thorgren et al., 2009), which provide participants with the opportunity to achieve economies of scale and to rationalise internal and external processes (Sher & Lin, 2006). The wide number of potential beneficiaries and the persistence of substantial obstacles to the achievement of the expected advantages (Duysters & Heimericks, 2005) justify the effort of disentangling the processes which underlie cooperation in networks among SMEs.

This paper contributes to the debate on the participation of SMEs in voluntary business networks by modelling the relationship between different types of learning. The proposed approach differentiates between learning about networking, defined as the capability to set, manage and terminate a strategic alliance, and learning by networking, which concerns the sharing of technical knowledge and capabilities among network members and the joint creation of new technical knowledge. We argue that learning about networking is an enabling factor of learning by networking. By developing mutual trust and shared values, network participants develop communication skills and learn how to balance those tensions and conflicts which inevitably arise in alliances. Learning about networking consequently provides a favourable environment in support of the sharing and transfer of technical knowledge.

The proposed framework is validated through the analysis of a longitudinal case study about an ICT consortium of Italian SMEs. The focus on the ICT industry is motivated by three reasons. First, intense and dynamic competition in the ICT industry encourages firms’ participation in networks. Second, the ICT industry is characterised by the opposition between few large, integrated, often multi-national companies and a plethora of small entrepreneurial firms focused on limited stages of the supply chain. As a matter of fact, specialisation and the parallel need for compatibility among different modules and products have led to the creation of ICT business clusters all over the world (OECD, 2001). Third, IT professionals in general, and small ICT entrepreneurs in particular, often benefit from strong technical skills, opposed to much weaker managerial capabilities (Storey, 1994; Hines, 1995; Orser et al., 2000; Colomo-Palacio et al., 2010; Trigo et al., 2010). These characteristics make alliances among small ICT firms an ideal test-bed to observe processes of learning about networking.

The rest of the paper is organised as follows. The main features of voluntary networks of SMEs are outlined, followed by an introduction of the key-concepts which underlie learning processes in voluntary networks of firms and presents the proposed framework to identify and model those learning processes. Next, the story of the examined consortium is discussed and the evidence on the observed learning processes under the light of the proposed framework is presented. Finally, some concluding remarks.
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