



Social capital, ICT use and company performance: Findings from the Medicon Valley Biotech Cluster

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ARTICLE INFO

Article history:

Received 29 June 2009

Received in revised form 2 December 2009

Accepted 10 March 2010

Keywords:

Social capital

ICTs

Business clusters

Biotechnology

ABSTRACT

This study explores how some uses of ICTs, as well as having social capital and other means of access to knowledge resources, are related to company performance in a knowledge-intensive business cluster. Data were collected through a survey of companies in the Medicon Valley biotech region located in Denmark and Southern Sweden. Responding companies included established producers of biotechnology-related products as well as small biotechnology start-up firms emphasizing research and development. The results suggest that when ICT use was aimed at accessing and enhancing human and intellectual capital, such as use of online databases for recruitment, intranets to enhance employee access to information and education, and collaborative tools to connect with off-premise researchers, companies reported better performance outcomes. Social capital in the form of connections to people who can provide access to information and opportunity predicted company performance, particularly for small start-up companies. The pattern of results complements prior work that establishes the importance of social capital in regional business clusters by demonstrating how certain ICT uses complement personal relationships to enhance the likelihood of success among companies in the region.

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1. Introduction

Over the past several decades there has been much interest in industrial localization of economic activities as a way to explain economic growth and increase innovation and competitiveness [1–4]. Such industrial agglomeration has been referred to in a number of different ways [3,5–8]. In this paper Porter's definition of business clusters, defined as “geographic concentrations of interconnected companies and institutions in a particular field” is adopted [3, p. 78].

The effects of industrial agglomerations have been mainly explained by the interaction among the many actors located within a well-specified geographical region such as governmental organizations, universities, standards-setting agencies and trade associations [9]. Factors explaining the growth and dynamism of regional industrial clusters include the presence of supportive local institutions, the availability of specialized suppliers and service providers, access to a qualified pool of workers, pressures from local competition [4,10,11] and knowledge creation and learning processes within the region [12,13]. In addition tacit and explicit knowledge spillovers through formal and informal communication channels – indicators of a region's “social capital” – are considered to be very important, especially in knowledge and research intensive clusters such as biotechnology [14–16]. Recent literature is also investigating the benefits for cluster companies in using information and communication technologies (ICTs) to support exchange activities within and outside the cluster [9,17,18].

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