Chapter 12

The Movement of Senior Staff and Their Competencies Between Enterprises in a High Technology Cluster

Brychan Celfyn Thomas
University of South Wales, UK

ABSTRACT

The purpose of this chapter is to investigate the movement of senior staff and their competencies between enterprises in a high technology cluster (HTC). An analysis has been undertaken of the movement of senior staff between high technology enterprises. The mobility of senior staff in the cluster is considered with reference to the growth of the cluster. The findings of the research show that a local production network exists around cluster enterprises. An extensive knowledge network has been built around the enterprises facilitated by senior staff movement between them. Here it has been found that knowledge diffused by the mobility of labor involving senior staff in the high technology cluster has contributed to the cluster performing better through the generation of spinouts and the accumulation of knowledge. The approach highlights the importance of the movement of labor between enterprises in a high technology cluster in terms of understanding cluster growth dynamics and the cluster's contribution and importance to international industry.

INTRODUCTION

According to Oliver and Porta (2006) sticky knowledge (Lagendijk, 2000, p.165) or knowledge accumulations (Florida, 2002; Storper & Venables, 2002) constitute the available intellectual capital (IC) (Clarke & Whiting, 2011; Jardon & Martos, 2012; Lammi, 2012) sources of a cluster. Sticky knowledge is described as the knowledge embedded in the local industrial milieu which is difficult to copy or transfer to other areas (Oliver & Porta, 2006). Furthermore, sharing knowledge involves firms with a community of workers in a cluster (Harrison, 1991). IC arises from knowledge creation through linkages between firms (knowledge spillovers), firms and institutions, and informal relationships arising from an interaction process in a local skilled labour pool. Knowledge in the cluster is tacit, embedded and transferred within the cluster (Oliver and Porta, 2006).

Three mechanisms for the transfer of knowledge within a cluster identified by Keeble and Wilkinson (1999) include new firms, spin-offs from firms, universities and public sector research laboratories, interactions between the makers and users of capital equipment, interactions between customers and suppliers, and inter-firm mobility of the labour in the cluster. The relationships and mechanisms create flows within the cluster and the knowledge transfer processes result in cumulative know-how that is external to firms remaining internal to the cluster (Oliver and Porta, 2006). Empirical evidence has shown how knowledge sustainability (expenditure on education), regional economic outputs (earnings and labour productivity), knowledge capital (patents and R&D) and human capital (high tech employment) components have influenced regional competitiveness (Porter, 1990). Economic productive activities are enabled by tacit knowledge, the contribution of local businesses and infrastructures such as research institutes and universities, by employee exchange and the mobilisation of human capital resources (Oliver and Porta, 2006). According to the resource-based view of the firm (Penrose, 1959; Peteraf, 1993; Barney and Mackey, 2005) the competitive advantage of companies arises from the core competences or knowledge of firms.

An important element of a cluster is the community of people (Harrison, 1991). Indeed, Porter's (1990) model included the skilled labour pool involving territorial human resources specialisation in clusters. Representing a cluster resource, the skilled labour pool is available to cluster firms (people educated on specific cluster university courses and trained through educational programmes in cluster requirements) (Oliver & Porta, 2006). In addition to training and education there are the social capital aspects associated with tacit knowledge and information flows attributable to directors, managers and workers in cluster companies (Uzzi, 1996). It has been reported by Dahl and Pedersen (2004) that in clusters knowledge flows take place through informal contacts. The local labour pool will contain the available pool of

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