Geographical Business Clusters –
Concepts for Cluster-Identification with an Application to an Alleged Aeronautics Cluster in Northern Germany

Alf Erko Lublinski

Abstract

This dissertation investigates the issue of how to identify geographical business clusters. A *review of the methodological literature* shows that no concept yet exists for the identification of a specific cluster. Moreover, cluster identification techniques that have been used so far determine the spatial scope of clusters in a rather contestable way (*geographical dimension*). Furthermore, they do not allow to analyse which, if any, agglomeration forces are operating in the alleged clusters (*functional dimension*).

This dissertation offers a *careful empirical approach for the identification of a specific cluster* that attempts to solve these measurement issues. The approach has several components, of which two deserve special attention. First, as our understanding of the cluster phenomenon is mainly constrained by the quality and availability of relevant data, a mix of official statistics and a minimum requirement of firm-level data is suggested. A survey has been designed for 15-minute telephone interviews in order to collect cluster-specific firm data, thereby capturing the spatial boundaries of the cluster endogenously (*geographical dimension*). Second, the approach comprises a method to test empirically which agglomeration forces may be operating within the alleged cluster compared to a control group of similar firms that are not co-located (*functional dimension)*.

This approach has been applied the case of an alleged cluster of aeronautic (supplying) firms that are concentrated in the Northern German region surrounding the city of Hamburg. This is a particularly interesting case because two world leaders in the production (Airbus Deutschland GmbH) and overhaul of aircrafts (Lufthansa Technik AG) as well as approximately 250 small and medium-sized supplying enterprises are centred here. The survey technique has been applied in order to conduct extensive telephone interviews with 178 cluster firms as well as non-cluster firms. Thus, a *new high quality data set* has been generated. Results of econometric analysis suggest that agglomeration forces are at best operating weakly. In the conclusion, firms in the alleged cluster are co-located though not effectively inter-linked and thus constitute at best a weak cluster. The limitations of the data, however, do not allow for any definitive conclusion.