THE INFLUENCE OF INNOVATION SOURCES AND NETWORKS ON THE PERFORMANCE OF DUTCH SMEs

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This dissertation examines systems of innovation in order to better understand how the Dutch system of innovation shapes competitive advantage through SMEs. The study focuses in particular on national innovation systems (NIS) and regional systems of innovation (RSI), NIS specifically focuses on how a system of innovation shapes competitive advantage, with the RSI approach emphasizing economic and social interactions between agents. The systems of innovation literature mainly builds on the cluster theory, which argues that firms often explicitly operate in clusters, and that the presence of knowledge spillovers can lead to enhanced innovation. The RSI and NIS approaches are often compared by focusing mainly on the exploration stage of innovation. In this form, however, the concept has become so broadly defined that researchers increasingly argue that it is not the size of the firm but the scale of the firm that matters. Various researches have argued that the focus should be on the innovation processes that are successful in an NIS instead of focusing on systems or the systems of innovation processes that are successful in an NIS instead of focusing on systems and regional systems. This can mean relying on a “facilitating device” for analyzing innovation and regional advantage.

In the Netherlands, the Innovation Platform has developed several policy initiatives that are heavily grounded in the RIS approach. By focusing on innovation processes of SMEs that participated in these RIS-inspired policies, the dissertation aims to be better able to assess how Dutch firms contribute to regional advantage. The dissertation introduces a guiding model to help understand innovation processes in SMEs that are considered to be particularly dependent on a local (external) environment for knowledge acquisition. The study examines the impact of the Innovation Platform to the focus of this study, has therefore proven its process especially for innovative micro- and small-sized firms with sufficient internal resources. The study finds that only a few financial and human capital resources is indeed a serious problem for many small firms. For this reason, the NIS and RSI, both knowledge, labor capabilities, and creativity of firms are also considered key competitiveness factors. This study shows that SMEs are not only as dependent on a complex set of components and capital flows to see available innovative. Further, the study supports the idea that creativity and innovation SMEs require networks and also interregional external knowledge, leading to innovative learning between SMEs. This study finds that, particularly SMEs' knowledge flows to universities seem to be especially important in combination with international network contacts. Larger firms, obviously, have fewer barriers for interacting with universities, but innovative SMEs also seem well able to find their way to universities for less performing. Most importantly, this study shows that there are more complex and successful SMEs that are successful in the development of social innovations and those that have a high scale performance. A major challenge for policy makers lies in bringing both these types of SMEs together, so they can share sources and networks.

From an NBS perspective, the role of the cluster is more against a top-down approach towards the cluster literature of Porter. That the strength of both approaches might be an interaction. The cluster literature, the greater emphasis on networking, social and institutional interactions, and associated collective learning that is analyzed within an exploratory framework, appears to focus strongly on the exploration phase of the innovation process, whereas the RSI approach focuses on the exploitation phase. In this way, it distinguishes itself from the competitiveness of the cluster approach. However, in reality, firms need to be successful in both stages in order to actually be able to reap the benefits of their innovation. Future RSI research should also focus more extensively on networking, social and institutional interactions, and associated collective learning in the exploration stage of the innovation process. This study shows that those two stages, namely, exploration and exploitation, do not necessarily rely on similar sources and networks.