Regional Branching Reconsidered: Emergence of the Fuel Cell Industry in European Regions

The literature on economic geography suffers from a lack of attention to the emergence of new industries. Recent literature on "regional branching" proposes that new industries emerge in regions where preexisting economic activities are technologically related to the emerging industry. This article provides a more grounded basis for the emerging literature on regional branching by confronting the regional branching thesis with the realities of an emerging industry, namely, the fuel cell industry. The analysis is based on patent data and qualitative interviews conducted in a selection of European NUTS2 (nomenclature of territorial units for statistics) regions. The findings can be summarized as follows. First, the analysis reveals that in the case of the emerging fuel cell industry, regional diversification is dominated by firm diversification, which complements previous studies' findings that entrepreneurial spin-offs dominate regional diversification. Second, the study corroborates the assumption that the process of regional branching relies on knowledge generated by nonindustrial actors such as universities and research institutes. Third, the findings suggest that care should be taken in ascribing the underlying logic of regional branching to the principle of technological relatedness alone. The article shows how some regional diversification processes occur in regions where preexisting economic activities are not technologically related to the emerging industry, for instance, when user industries apply new technologies to their product portfolio. The importance of further investigating and disentangling different dimensions of relatedness and their impact on regional branching is stressed.