COLLABORATION WITH UNIVERSITY AND GOVERNMENT TO THE COMPETITIVENESS OF CLUSTERS: MODEL PROPOSITION AND COMPARISON BETWEEN CASES IN THE BIOMEDICAL INDUSTRY IN BRAZIL AND THE UK

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Introdução

The business cluster literature comprises of works that identify the competitiveness drivers of high technology organizations; nevertheless, firms often lack the capacity to innovate by themselves. This condition encourages cooperation with other organizations, be they firms, universities, governments, or other actors (such as innovation networks) surrounded by their territory. The presence of universities and government actions are often regarded as relevant, as already pointed out by the Triple Helix literature.

Problema de Pesquisa e Objetivo

In the literature, we do not often find further research on how (and the nature of) collaborative actions between universities and government influence the competitiveness of the high technology cluster. This is the theoretical gap this article aims to cover. The objective of this article is to propose adding to a cluster competitiveness model the collaboration between university and government. The secondary objective is to verify how such collaboration may influence the competitiveness of two high technology clusters.

Fundamentação Teórica

Regarding competitiveness of clusters, this article uses the approach proposed by Newlands (2003), which refers to the innovative milieux. In today's knowledge economy, the main institutions are the government, industry, and universities (Etzkowitz & Leydesdorff, 1995). This model is known as the Triple Helix. We have opted for Zaccarelli et al. (2008) cluster competitiveness model, due to it being more complete than other models. Although this model encompasses many aspects, there is space to refine it, adding university and government role to competitiveness enhancement.

Metodologia

The multiple case study method is herein employed. The variables used are qualitative. This choice is anchored in the fact that strategic variables are less measurable than others. Clusters are the units of analysis. We have used the metrics first proposed by Zaccarelli et al. (2008), along with some others that have been adapted to this study. Both primary and secondary data sources were accessed. We analyzed each competitiveness factor in order to classify whether or not it is applicable to a high technology cluster. Out of the 11 factors, nine are applicable to a high technology cluster.

Análise dos Resultados

One of the tables exhibits nine out of the 11 factors applicable to technology clusters, outlining the more competitive one in the factor, either Oxfordshire or Ribeirao Preto, and the reasons for this advantage. Regarding competitiveness factor number 3, the university is appointed as influencing this competitiveness factor. In this, Oxfordshire has the advantage. In terms of competitiveness factor number 4, which concerns balance without privileged positions, it is possible to see that it is influenced by both the university and government. For this factor, Oxfordshire also had the advantage

Conclusão

It is possible to conclude that due to the helix universities, namely the University of Oxford, the UK cluster is ahead in two factors of competitiveness. It should also be observed that numerous collaboration initiatives were identified among the actors in both clusters. These collaborations encompass researchers, universities, hospitals, firms, and support institutions. Cluster actors interact in several different ways and target developing technologies that enhance cluster competitiveness.

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