The South Florida Life Sciences Industry Cluster: A Regional Innovation System (RIS) Approach

Gonzalo Vizzardo
Faculty Advisor: Asli Ceylan Oner, Ph.D.
Florida Atlantic University, Boca Raton, FL.

Abstract

Using regional innovation system (RIS) theory and practice as a guiding framework and examining the experiences and models from other regions, my research will seek to analyze and understand the South Florida life sciences industry cluster. The triple helix model posits that industry, academia, and the state network resources to develop and apply knowledge, resulting in innovation and economic development benefits such as new start ups, job creation, and new products and services. However, some clusters are more successful that others, and the research will examine some of the differences in outcomes and their causes. Using these insights and analyzing the relevant institutions and developments, the research will look at possible pathways for greater regional competitiveness utilizing a comparative approach.

Methodology

This study entailed reviewing the literature on Regional Innovation System (RIS) theory and related fields in general as well as specifically about life sciences industry clusters globally. The literature includes peer reviewed journal articles as well as books, government reports, NGO and think tank reports, and various other kinds of materials. Primary statistical sources from government agencies were also examined.

Another source of information besides published literature was the "Economic Development and Innovation in Southeast Florida's Life Sciences Sector" panel at the Seven50 Summit in Miami, which took place on January 24th, 2013. The panel included various stakeholders within the life sciences "ecosystem" in South Florida, mainly from academia but also from various other research organizations.

Background and Introduction / Literature Review

Regional innovation systems (RIS) theory examines industry clusters, or regional concentrations of institutions in a specific industry, and issues such as their formation, development, decline, relevant public policies, and historical and emerging trends (Doreux and Porto 2006). Many, but not all, industry clusters consider the presence of universities and research organizations producing relevant knowledge as essential to their success (Holly 2012). In the past few years in South Florida, the life sciences industry cluster has grown and gained increased attention from local and state policymakers. Life sciences firms outside the region, research and academic organizations inside and outside of the region, and others (Oner and Zamora 2012). This is also true of life sciences in general. The increased prominence of the life sciences cluster has, on the part of academic organizations and elsewhere, led to a continued promotion of STEM research, especially that which is thought could lead to economic development and job creation. This includes the Life Sciences South Florida research consortium. Given that knowledge production is only part of the story and by itself does not lead to any meaningful economic development, this paper examines the institutions, policies, networks, practices, etc. that are typically present in successful industry clusters.

The Triple Helix Model: The South Florida Life Sciences Industry Cluster

Florida Atlantic University