Chapter 63
Assessing the Success of an Industrial Cluster

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ABSTRACT

Industrial clusters have received considerable attention as a regional development strategy. While their efficacy has been debated by academics, clusters have become popular among practitioners. Despite clusters' acceptance, there have been few attempts to measure their success or their impact on constituent firms. This paper outlines and discusses the metrics developed to evaluate the success of the northwest Ohio greenhouse cluster. The cluster was launched in 2004 to help the industry become more competitive though collaborative problem solving. In identifying success metrics, the authors were cognizant of the fact that they had to reflect the cluster's objectives and goals. Thus metrics that measured the impact of branding and marketing efforts, reducing energy costs, and increasing collaboration among cluster stakeholders were developed. The work reported in this paper is only the beginning phases of a longer-term, on-going effort to track the progress and success of the northwest Ohio greenhouse cluster.

INTRODUCTION

Cluster-based economic development strategies have generated substantial attention in recent years. Even though the benefits of clusters have been questioned in the academic literature (Martin & Sunley, 2003; Taylor, 2006), practitioners have widely adopted the cluster strategy. In 2002, van der Linde (2002) identified over 800 cluster projects globally. More recently, Sölvell (2008) reported that there were over one thousand cluster initiatives in Europe alone. Clusters have also been embraced in the United States. For example, the National Governors Association (NGA, 2007) published *Cluster-Based Strategies for Growing State Economies* and subsequently announced

that it was launching a policy academy for states using cluster analysis and innovation-based economic development strategies. Also, Muro and Fikri (2011, p. 1) argued that cluster-based strategies are particularly attractive for governors concerned with revitalizing state economies since they "provide a direct route to economic renewal because they build on existing assets to promote growth in regions by enhancing the interactions by which firms complete transactions, share ideas, start new enterprises, and create jobs."

Despite the acceptance of clusters by many academics and policy makers, there have been few attempts to objectively measure the success of clusters or the impact of a cluster on the constituent firms (Feser *et al.*, 2008; Fromhold-Eisebith & Eisebith, 2005; Schmiedeberg, 2010). Sölvell (2008) reported that only five cluster organizations out of 50 he surveyed had completed cluster evaluations. A few academic researchers have investigated the impact of clusters on specific economic conditions. For example, Feser *et al.* (2008) analyzed the affect of clusters on job growth and new business formation in Appalachia. Also Delgado *et al.* (2010) investigated the relationship between clusters and entrepreneurship. As a final example, Fowler and Kleit (2010) assessed the impact of cluster activity on areas' poverty rates. While such studies contribute to our general understanding of regional development, they do not necessarily inform about measuring the success of a specific cluster project.

Fromhold-Eisebith and Eisebith (2005) suggested that the heterogeneity of clusters leads to intricate methodological issues that inhibit evaluation. Schmiedeberg (2010) and Sölvell (2008) discuss a variety of such problems in their overviews of cluster policy evaluation. Moreover, Fromhold-Eisebith and Eisebith (2005) noted that there may be a vested interest on the part of cluster management and public officials not to have an evaluation because it may yield undesirable results. Nonetheless, for those persons managing a cluster, an evaluation of the progress of a cluster

is necessary in order to attract funding and participants (Sölvell, 2008). Those were the motivations behind the greenhouse cluster management team developing measures to assess the success of the northwest Ohio greenhouse cluster.

PURPOSE

The purpose of this paper is to discuss the initial measures that have been developed to evaluate the success of a greenhouse cluster which has been operating in northwest Ohio since 2004. Success for this paper is defined as the benefits that the cluster has generated for the participating firms and the local industry. An assessment of the impact of the cluster on the regional economy is outside the domain of this paper. The work reported in this paper is only the beginning phases of a longer-term, on-going effort to track the progress and success of the cluster.

In the remainder of this paper, we begin by providing background information on the cluster, which is necessary to understand the metrics that have been developed. Also data collection procedures are outlined. This is followed by a discussion of the results.

THE NORTHWEST OHIO GREENHOUSE CLUSTER

While northwest Ohio's greenhouse industry can trace its existence back to the late 19th century, the organization of the industry as a formal industrial cluster began in 2004. The cluster was initiated by university researchers at the University of Toledo and Bowling Green State University, with strong support from U.S. Congresswoman Marcy Kaptur. Funding for the cluster project has been provided by the United States Department of Agriculture.

The members of the cluster, including greenhouse owners, university researchers, industry suppliers, and other community stakeholders, have

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