

INDUSTRY CLUSTERS AND GLOBAL COMPETITIVENESS DOES LOCATION WITHIN AN INDUSTRY CLUSTER MAKE A DIFFERENCE IN A FIRM'S PRODUCTIVITY AND GLOBAL SUCCESS?

Sal Kukalis, CSULB

Introduction and Research Background: This research study is part II of a research project that investigates the relationship industry cluster and firm performance. The first study in this project examined the relationship between agglomeration economies and financial performance. Its results, which employed thirty-one years of performance data for 194 firms from the semiconductor and pharmaceutical industries, revealed no significant differences between clustered and nonclustered firms in the early stages of the industry life cycle. However, isolated (nonclustered) laggards outperformed clustered laggards in the late stages of the industry life cycle. Similarly, no significant differences in financial performance were found between the groups during periods of economic contraction at an early stage of the industry life cycle, but isolated firms outperformed clustered firms in the late stages of the industry life cycle. The reported results of the first study, in combination with concerns raised by a few agglomeration scholars, suggested that the enthusiasm for cluster theory shown by scholars, practitioners, and policy makers may need to be tempered (Journal of Management in March, 2010).

Part II of this project investigates the relationship between industry cluster and firm's productivity, and it also examines the relationship between industry cluster and firm's global competitiveness. The role of cluster theory in influencing competitiveness within countries as well as across national markets has recently gained momentum among academics, practitioners, and policy makers. Michael Porter has recently (February, 2011) gave a lecture in Washington D.C. to the US National Governors Association on the important role that industry clusters play in enhancing global competitiveness. He emphasized that the role of public policy makers in building and nurturing industry clusters is pivotal in strengthening global competitiveness of businesses. Cluster theory predicts that success in global markets depends on companies' ability to continually keep improving their productivity rather than relying on conventional competitive approaches such as access to inputs, among other things. In brief, cluster theory predicts that firm productivity improves due to locating within an industry cluster and consequently it should lead to better performance in the global market. This prediction has never been empirically tested. This study attempts to verify cluster theory's predictions relating to productivity and global competitiveness.

Theoretical Background: Much of the agglomeration arguments underlying the strategic management literature focus on the broader impact of clusters on the competitiveness of firms and locations. Porter (1998a, 1998b) contended that, from a strategic perspective, those firms within clusters of competitive industries may improve their competitiveness as a result of the presence of challenge and pressure. More specifically, he argued that industry clusters have a sweeping effect on cluster-encircled firms by increasing productivity, enhancing opportunities for innovation, and stimulating the growth of new businesses within a cluster. He suggested that productivity advantages are fostered by cluster-related efficiencies in resource acquisition,

communications, coordination, and social networks (Porter, 1998a). Thus, Porter viewed clusters as crucial self reinforcing systems that strengthen the competitiveness of the cluster firms and consequently the competitiveness of the cluster itself (Martin & Sunley, 2003; Porter, 1998a). Overall, streams of cluster literature generally suggest that, relative to isolated firms, cluster firms stand to benefit from geographic propinquity. If this is the case, then it is reasonable to expect that cluster benefits should result in higher productivity for cluster firms. However, none of the studies in the literature have specifically explored such a relationship.

Hypotheses:

H1: “Industry firms that are located within an industry cluster are more productive than those that are located outside of an industry cluster (isolated companies)”

H2: “Productivity of geographically clustered firms is higher than that of industry competitors that are located outside of the industry cluster early in the industry life cycle (clustered early movers vs. isolated early movers)”

H3: “The productivity of non-clustered laggards (located outside the industry cluster) is higher than that of geographically clustered firms late in the industry life cycle (isolated laggards vs. clustered laggards)”

H4: “During periods of economic contraction, the productivity of clustered firms is higher than that of industry competitors that are located outside the industry cluster (isolated firms) in the early stages of the industry life cycle”

H5: “During periods of economic contraction, the productivity of non-clustered firms is higher than that of clustered firms in the late stages of the industry life cycle”

H6: “Geographically clustered firms are more globally successful than those that are non-clustered firms”