Seneca

Thinking About Clusters

Cluster-based Strategies and Local Economic Development in Ontario

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Abstract

Economic development professionals have increasingly focused on cluster-based strategies as a way to spur growth and innovation. This paper reviews the conceptual framework on which such strategies are based. The strength of this framework is that it can provide governments with an economically sound way of encouraging innovation through market-driven competition. The specific case of Ontario shows how successive provincial governments shifted towards such cluster-based strategies as a way to encourage local economic development. This shift in strategy has also enhanced and highlighted the role of municipalities in the economic development process.

Introduction

Economic Clusters are an important conceptual framework that can be utilized as an important tool for local economic development. Clusters are groups of firms within a broad business sector (e.g. financial services, advanced manufacturing, tourism) that are concentrated in a particular locale along with a variety of supporting institutions. While such a geographically-based understanding of the economy had been seen as rather unorthodox in the 1990s, this is no longer the case today. In fact, economic clusters are now increasingly central to economic policy-making by government across the world. For example, the Canadian federal government announced in spring of 2017 that it would be investing $950 million into 5 super clusters located across Canada (Seddon and Usmani). This paper focuses on the development of government cluster-strategies in Ontario at the provincial and local levels of governments. Cluster-based strategies represent one of the key policy tools to increase the productivity and competitiveness of Ontario's businesses. This paper first examines the nature of economic clusters and how they have been conceptualized. The second part of the paper reviews how cluster-based strategies became central to economic policy-making in Ontario. The final part looks at practical ways in which local governments can utilize cluster-analysis and strategies.

Understanding Clusters

The contemporary discussion about economic clusters primarily comes out of the work of economist Michael E. Porter. In his effort to understand the dynamics of competitiveness, Porter noticed that innovative and highly competitive firms, engaged in particular types of business, tended to be concentrated in various geographical locations within advanced economies ("Location, Competition" 15) . He began to conceptualize this phenomenon in terms of economic clusters. These clusters are quite distinct from the way in which economists and business analysts had tended to focus on economic activity in terms of sectors and industries that were organized on national or provincial levels. Refocusing on clusters tended to look at the way in which identifiable groupings of firms were concentrated in regions which did not necessarily follow political boundaries of provinces or municipalities (Porter, "Clusters and Economic Policy" 3).

In addition to being geographically specific, clusters tended to combine several different types of industry and included both manufacturing and services (1-2) . For example, a financial services cluster includes not just traditional financial firms such as banks, insurance companies, and accounting firms but also the associated services including IT firms and specialized business media (Bloomberg, Wall Street Journal, Financial Times) among others.

While individual firms form the core of the cluster with one or two major firms serving as the foundation or anchor, it is also important to recognize that clusters also contain a variety of other supporting institutions (Wolfe and Gertler 1, 9-10). These can include educational institutions such as universities and technical institutes which

provide both research and a steady supply of highly-skilled labour. It would also include business associations that facilitate interaction between firms and represent their collective interests. Porter also noticed that clusters could be further broken down into two categories. Local clusters tend to focus on providing goods to nearby regional markets. In contrast, traded clusters tend to be geared toward international markets. It is these traded clusters that tend to exhibit the highest levels of productivity and which tend to be the most competitive firms within a national economy.

What are the advantages of clusters and why are they so much more competitive? Porter's examination of clusters revealed that, although the reasons for the initial development of specific clusters had to do with a large number of contingent factors, there were some important unifying elements which underpinned the success of these clusters in general ("Location, Competition" 21-23). At the most basic level, the close proximity of similar businesses generates intense competitive pressure amongst the firms which spurs innovation and productivity gains (24). However, in addition to this competitive dynamic, clusters also tend to generate significant common benefits which all firms can draw upon. In particular, firms that were clustered together were able to take advantage of the concentration of inputs for their particular line of business. The clustering of businesses tends to pull together a collection of secondary firms that act as suppliers. For example, the auto manufacturing cluster in Detroit-Windsor has drawn a multitude of auto part supplies to the area. This then offers the primary firms a greater choice of suppliers and, in turn, encourages specialization as suppliers compete with one another. The other major input that clusters pull together is highly-skilled labour that is very specific to the business type that defines the cluster. This labour pooling can

clearly be seen in the case of Silicon Valley which has tremendous power to attract the most skilled engineers and computer scientists from every corner of the world (Wolfe and Gertler, 9).

In addition to these specialized inputs, clusters also benefit from the enhanced development and concentration of research and localized technical knowledge. This then creates the possibility for frequent knowledge-spillovers as information about business processes and products flows among the firms in the cluster with interpersonal interactions and workers moving from one firm to another (Wolfe and Gertler 6). In addition to these factors, clusters also tend to provide a fertile area for entrepreneurship and the development of new firms. Start-ups can take advantage of the same base of knowledge, abundant labor and specialized suppliers.

When looking at these advantages together we can discern a certain pattern. Clusters tend to intensify the interaction between firms and other supporting institutions. This is very much a two-sided phenomenon. It involves intense competition among firms but it also involves forms of cooperation and collective goods. Taken together these dynamics tend to encourage innovation and in doing so lead to higher productivity gains. Consequently, this enhanced productivity makes firms within the cluster highly competitive within the global economy.

Looking beyond the business/operational dynamics, clusters are also important theoretically as they provide a framework for restructuring and improving economic policymaking by governments (Porter, "Location, Competition" 26) . Economic policymaking typically has been dominated by macroeconomic policies (fiscal/monetary policies) which are the purview primarily of national governments with some role for

states/provinces. Such policies are important insofar as they put in place the general business conditions to foster economic growth and stability (i.e. low inflation, a tax system that incentivizes capital formation, etc.) (26). However, these policies are extremely broad and their effects very indirect. To more directly spur economic growth, national and provincial governments have typically utilized industrial policies (27). These policies tend to involve utilizing tools such as tax incentives, government financing, and tariffs to protect specific key industries or firms. In effect, governments pick and subsidize firms that they consider of national importance (i.e. national champions). The goal of this top-down strategy is to give these firms an advantage in competition with foreign firms globally.

Porter's work, which looks at the microeconomic dynamics of competition, is particularly important because it provides an alternative to such traditional industrial policy. Porter argues that governments cannot simply create clusters because the development of a successful cluster involves too many factors (26). Instead, governments have an important role in enhancing and nurturing existing clusters. This can be done through scaling back regulations that impede business activity or competition.   Governments can also aid clusters through activities such as gathering/sharing market information or helping firms within a cluster organize themselves into an advocacy organization (Porter, "Cluster and Economic Policy" 5). The important thing, according to Porter, is that economic policy is demand-driven. That is to say government policy is responsive to the needs articulated by local business rather than attempting to dictate the direction of the economic development.

What is interesting is, unlike top-down industrial policy, the microeconomic focus of cluster-based strategies creates opportunities for cooperative multilevel governance (Wolfe and Nelles 6). This involves different levels of government (federal, provincial and local) cooperating with groups of local firms as well as educational and non-profit institutions. These various levels of governments then cooperate in decision-making based upon the expressed needs of the businesses within the cluster. This then really elevates the role of local government. Indeed, cluster-theory's focus on specific geographic locales placing local governments at the forefront of economic development. It is local economic development professionals (EDPs) who consistently work closely with firms within a given cluster. In contrast, the role of the federal and provincial government increasingly shifts towards providing background support and funding to institutions which support clusters such as universities.

The Development of Clusters as Part of Economic Policy in Ontario

In the mid-1980s and 1990s, it was becoming clear that there was a need to modernize the Ontario economy in order to stay competitive in an increasingly globalized market. This was recognized in turn by Peterson's Liberal government and Rae's NDP government. The Liberal government elected in 1985 took some steps toward putting an industrial policy in place through the creation of the "Premier's Council" (Hall 72; Hepburn 102). This council brought the premier together with industry leaders, academics, labour representatives, and other experts to craft an export strategy that would prioritize Ontario's high tech sector. While the council performed some important research on the competitive position of Ontario's economy, the actual policy initiatives were rather limited (Hall 88). This was due to both the defeat of the Liberal

government precluding rolling out many of the policies that emerged from the council's research as well as reluctance on the part of the Liberals to play an active role directing the economy.

The 1990 NDP Rae government which took office in 1990 was more open to the potential for an active industrial policy. However, Rae's version was something of a hybrid industrial policy as it combined traditional industrial policy with ideas of social learning and regional strategies based upon research by, among others, Michael Porter (Hall 72). The NDP's policy goal was to create a much more collaborative economy along the lines of those of continental European countries. This was to be accomplished through social partnerships which would bring together government, labour unions and business in power-sharing arrangements throughout the economy. Rather than focusing on localized clusters, the specific industrial/labour market policies were geared toward key industrial sectors (Bradford 1013). However, these policies proved quite unworkable as the required cooperation between labour and businesses did not materialize (Hall 121). Instead, in the context of a moribund economy, both groups concentrated on criticisms of the NDP government which was later defeated.

The 1995 "Common Sense Revolution" of Mike Harris' new Conservative government forcefully rejected what they saw as unnecessary government intrusion into the economy by past governments. Indeed, the Conservatives wanted to increase the scope for the free market by reducing the size of government. However, a policy emphasizing the de-centralized development of regional economic clusters fit perfectly into the Harris government's vision (Bradford 1018). The newly created Ontario Jobs and Investment Board (OJIB), which was composed of policy-makers and business

leaders, took the lead role in articulating and implementing this strategy. The strategy itself called for an emphasis on encouraging businesses to organize themselves and work with local municipalities to put in place local conditions to enhance existing clusters, and facilitate the development of new clusters. According to David Lindsay, the former head of the OJIB, "Clusters are the key to regional economic growth and success because they enhance productivity, foster innovation and spur new business formation. . . . The new approach should be locally led – not necessarily by local mayors or bureaucrats, but by top executives and entrepreneurs" (qtd. in Bradford 1023).

Competitiveness would be enhanced through understanding and meeting the needs of local businesses. This was to be done primarily through local governments and, in particular, economic development offices (1019). The collective efforts and coordination of economic development departments with developers, builders and businesses would create positive synergies to drive growth (1020). For example, municipalities could work to streamline regulatory and land use policies to facilitate the expansion and development of particular clusters.

The Harris government saw the role of the province as creating the conditions to enhance these localized efforts. The cluster-strategy was then complimented by several other provincial policies:

1. The Conservatives believed that pushing forward the amalgamation of municipalities would create city-regions that were better placed to compete internationally (1019).
2. The Municipal Act of 2001 provided municipalities with greater autonomy and flexibility to manage their economic assets.

3. The SuperBuild fund was created in order to meet increased infrastructure demands by encouraging further collaboration between municipalities and firms via public-private partnerships (1020).

The return of a Liberal government in 2003 did not signal a shift away from cluster-based strategies and economic policy, but instead involved a change in the emphasis of these strategies. The McGuinty government refocused the cluster-strategy on innovation and high tech development (Hepburn 138-139, 145, 158). Their strategy involved combining Porter's focus on economic clusters with the ideas of other thinkers such as Richard Florida on the nature of innovation. The subsequent Wynne government re-emphasized cluster-based strategies but combined it with centralized top-down elements reminiscent of the direction of the Peterson government's nascent industrial strategy. In particular, the *Partnership for Jobs and Growth Act, 2014* put in place a formal framework through which clusters could be integrated and coordinated with the government's overall economic strategy. One of the key elements is that clusters are pressed to conform to the focus of the province on technological innovation. In some ways, this more focused cluster strategy runs counter to Porter's ideas that cluster-based policy should be rooted in the demands of firms rather than the predetermined objectives of governments.

Local Economic Development and Economic Clusters

Local governments can utilize cluster-based perspectives and strategies to enhance economic development. Re-focusing on clusters does not necessitate anything like a complete revolution in local economic development practices. In fact, most of the traditional economic development activities performed at the municipal level, such as

investment attraction, business retention and expansion, and site selection, can be easily adapted to a cluster-based strategy. The starting point for such a strategy is conducting an analysis of the local economy and the surrounding region in order to highlight existing clusters (Choe and Roberts, 86). By doing so EDPs can begin to identify the types of business activity that are the strength of the local economy, (i.e. a high-density of highly-competitive firms in particular field of business). It is crucial though that these cluster studies are not done as promotional exercises which attempt to put a positive spin on the local municipality (Cortright 47). Instead, these studies need to be based on the collection of hard data and accurate analysis. This is not only important to gain credibility with business groups, but is also essential in order to help firms make sound decisions about expansion and investment.

From a public policy perspective, one of the most important things a cluster analysis does is shift the perspective away from individual firms and decreases the chances that these firms will be able to extract concessions from the municipality (Porter, "Location, Competition" 27). This allows municipalities to focus on policies which enhance the competitive environment for all firms within the cluster such as eliminating red tape that slows business expansions.

The other critical role that local economic development can play is to help facilitate communication and organization among firms within a cluster (Cortright 46). In many ways, this can be seen as an extension of the type of regularized interaction that EDPs undertake as part of their business retention and expansion activities in order to determine the needs of local businesses. It takes it one step further by encouraging business to communicate with one another and organize themselves into cluster

associations or similar organizations which can articulate and represent their needs to all levels of government.

Local EDPs can enhance this organizational role by encouraging cluster associations to connect to provincial programs and funding. Ontario's *Partnership for Jobs and Growth Act, 2014* contains specific guidelines regarding how clusters can be organized and linked into the province's economic development regime (Government of Ontario). First, the firms and institutions within a cluster must be organized into a formal organization called a cluster consortium. In addition to two or more local companies, the consortium must also include an anchor (a large firm with at least 500 employees) and two or more local partner organizations such as academic institutions, municipal governments, business associations, economic development organizations, innovation centers, non-profit business incubators/accelerators, and aboriginal governments (Government of Ontario). The municipal economic development team then can play an important role in this organizing process by bringing together various organizations to form the consortium and can also potentially act as the key contact organization.

After forming the consortium, the municipality can work with firms and other partners to develop the required "cluster plan." The plan must provide a description of the cluster along with the challenges/opportunities it faces and its long term objectives (Government of Ontario). This plan can serve as an extension and further development of the municipality's own cluster analysis with additional input from the actual firms along with other cluster partners. In drawing up these plans it is important that, in addition to the business fundamentals and plans of the cluster itself, the cluster's

objectives are clearly linked and articulated in terms of the overall provincial economic strategy developed in the annual budget and key policy documents.

Through such cooperative efforts, municipalities can integrate their economic development efforts more effectively with the needs of local clusters and the objectives of the provincial government.

The Federal Government's Superclusters Program

In May 2017, the Trudeau government unveiled a $950 million "Superclusters" program that had been alluded to in the federal budget as a measure to encourage innovation and job growth (Government of Canada). These superclusters are envisioned to be similar to traditional clusters insofar as they are based upon helping existing businesses that are geographically concentrated in an area to become more competitive. However, superclusters are focused on a much larger regional approach. There are five superclusters located across Canada, each in a specific region - Ocean Supercluster (Atlantic Canada), AI-Powered Supply Chains Supercluster (Quebec), Advanced Manufacturing Supercluster (Ontario), Protein Industries Supercluster (Prairie Provinces), and Digital Technology Supercluster (B.C.). The program specifically provides government funding in each of the regions to industry-led consortiums which are expected to supply matching funding. A key goal of the program then is to encourage a dramatic increase in private sector funding of research and development. The federal government is very optimistic about this new program, touting that it will create 50,000 high-paying jobs, spur innovation and make a significant contribution to GDP (Government of Canada).

However, there are some reasons that this superclusters initiative might be problematic. Increasing the geographic scale of clusters and evenly spreading them out across the country could potentially dilute the critical mass of competitive firms in a specific locale. This, in turn, would undermine the effectiveness of such a cluster-based strategy. It has also been suggested that this program could be something of a return to traditional industrial policy insofar as the federal government is attempting to pick winners which tends to be very difficult (Kaplan). Finally, given the vast geographical size of the program, it seems that the funding for the program could well be inadequate. Clustering strategies work well as a local economic development strategy, but it is much less certain whether they can be used effectively as national policy.

Conclusion

Clusters represent an important concept and practical tool which is essential to contemporary economic development. This is certainly the case in Ontario. Such cluster-based strategies are so important to the province because they hold the promise of increasing the rate of productivity growth which, in both Ontario and the rest of Canada, has tended to trail many other OECD countries. However, according to Porter's theory, it is local economic development and the firms themselves that will drive this growth rather than provincial policies.

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