An integrated analysis of socioeconomic structures and actors in Indonesian industrial clusters
Ismalina, Poppy

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9. Conclusion and Research Implications

This final chapter contains my conclusion and describes the theoretical as well as political implications of this study's findings. It also looks ahead and suggests what further research would be useful considering the limitations of this study.

9.1 Concluding Remarks

My conclusion involve three main issues: (1) socioeconomic structures of the clusters, (2) the role of actors in local business associations, and (3) the interplay between the two. My research consisted of fieldwork conducted from July 2007 to July 2008. This included in-depth interviews with participating local people (retailers, manufacturers, subcontractors, workers, and suppliers) and local government, a survey of 210 firms (local retailers, manufacturers, and retailers who have their own workshops) using a questionnaire, and participation and observation of meetings of local business associations and rotating saving groups. I found seven main conclusion about the dynamics of the studied Indonesian clusters:

1. Competition occurs in the three clusters. Although firms still maintain their traditional commercialization strategy based on price, they have extended their concerns to improve the quality of products to compete with their rivals. From their responses to the questionnaire, it becomes clear that most respondents consider the quality of their product, not price, the most important factor of their firm’s competitive advantage within the cluster.

   However, in Kotagede and Manding, the intensity of competition is more intense among small firms and among medium firms than among larger firms. In contrast, in Kasongan, the competitive pressure is felt among all kinds of firms. In the Kasongan cluster, many firms agree that small, medium, and large firms are their competitors as long as they provide the same products. Nevertheless, in the three clusters, competition among micro firms (mostly artisans and subcontractors for local manufacturers and traders) is not as high as it is among other kinds of firms.
In Kotagede and Kasongan, many of the enterprises interviewed agree that market linkages among them have dynamic effects, which may induce economic actors to introduce innovation in processes, products, or forms of organization and contribute to the growth of the clusters. Conversely, in the Manding leather handicraft cluster, the degrees of specialization and interfirm relationships are limited primarily because of the small size of the market and low competitive pressures. As a result, many retailers get their products from outside manufacturers. However, potential for learning through spillovers/benchmarking exists because few manufacturers have connections with world-class wholesalers outside the cluster, and some local subcontractors work with manufacturers to meet the wholesalers’ demand.

2. Social embeddedness exists when local people trust each other and reciprocal relationships prevail. Interpersonal and interorganizational trust among firms is useful to mediate diverse private interests in firms’ relations to pursue collective interests in the development of the clusters. Reciprocal interdependencies make the clusters’ community feel satisfied living and doing business in the same area. Not only does trust prevail in their personal life when they consider their neighbor firms as their friends; it also exists when they trust their neighbors because of their cooperative behavior, reputation, and capability.

Reciprocal relationships exist at the cluster level among local firms. The respondent firms demonstrated that they can benefit from their multiple linkages at the cluster level by attaining significant development. The more reciprocal relationships there are among the local firms, the more firms can pursue superior performance, improve their innovation skills and specialization, and create new technical processes and products. The members of the clusters believe that what they receive from the clusters is not different from what they are giving. In other words, the relationships are considered reciprocal.

In addition, respondents also thought that they benefited more from being located within than outside the clusters. Reciprocal relationships within the clusters motivate each member firm to do its best to improve interfirm relationships because members feel more secure and comfortable being among partners. Moreover, they believe that their reciprocal relationship can lead to improvement in firm performance.

3. Although social embeddedness exists in the clusters, most of the participating firms realize that there are some firms in the cluster that take advantage of other firms for their own self-interest and benefit. They behave opportunistically in their relationships and in turn, such behavior could be destructive for both partners. In fact, opportunist behavior will affect a firm’s reputation because information on a firm’s opportunist behavior easily spreads to the other firms in a cluster. Due to close proximity, firms simply cannot collaborate with others when their reputation in the cluster has faltered.

In addition, most of them recognized that there are some firms in the cluster that imitate the design of others without contributing anything to the
product development process itself. These free-riders usually exploit resources created by innovative firms, imitating successful products at lower cost and quality.

Although most cluster members have had a bad experience in terms of the cooperation with other firms, they still trust each other because of the long relationship and are not willing to dissolve the cooperation. In some cases, when they do not trust their neighboring firms, they choose not to cooperate with them but avoid having a conflict with them. They decide to maintain the social relationship with those kinds of partners but not a business relationship.

Furthermore, I noticed that inward-looking behavior exists in the three clusters. There were some firms that had no links to outside institutions, which could contribute innovative ideas. Some of them had no contact at all with the training or research and technology centers the local government provides. Inward-looking behavior may prevail in the clusters because local firms can exploit the advantages of external economies and joint actions within the clusters. Knowledge spillovers among local people as well as collective actions through local business associations can contribute significantly to the success of the interactive learning process. The need to realize product and process innovation can be fulfilled through the interactive processes that take place within the clusters.

4. The simultaneity of market relations and social embeddedness among participating firms emerges in the three studied clusters and constitutes socioeconomic structures of the clusters. Using a regression analysis on data from 210 firms in three Indonesia industrial clusters, I tested several sets of hypotheses. The models clearly show that all independent variables that include cooperative and competitive behavior and interaction variables between the firms’ classification and the behavior together significantly affect the three indicators of individual participating firm performance. This means that the simultaneity of market relations and social embeddedness has a positive and significant impact on the firm’s performance, as indicated by the improvement of firm’s innovation capability, basic capabilities, and business performance affected by the social and economic behavior of local people in firm’s connections.

Facing competition stimulates firms to improve productive efficiency to generate business achievement over other firms. This situation is reinforced by embeddedness among firms that facilitate knowledge development and utilization. Knowledge development and utilization enable firms to enhance resources, skills, and capabilities. Furthermore, the simultaneity of competition and social embeddedness in the clusters can prevent some unwanted actions like opportunism, free-riding, and inward-looking behavior. Opportunistic behavior can be prevented by intensive interactions among local people, and the negative effects of free-riding and inward-looking behavior can be offset by the existence of competition among them.
5. Some local actors have a significant role in coordinating collective efforts through influencing the decision-making process in the local business associations. This study shows that major changes in a cluster are likely to be established by the presence of a group of actors within the clusters. They are characterized as rule-making and open perspective leaders.

As rule-makers, actors have a significant influence in the decisions about the rules and mechanisms of interfirm relationships for the sake of the development of individual firms and clusters. They strengthen the collective unity, and they express aspirations that inspire the members. They lead the efforts of the members and deepen the motivation to enlarge output beyond that which could be achieved without the interventions of the leaders. The leaders have a set role, and the members have expectations about appropriate behavior; they may make an effort to modify a leaders’ behavior.

Open perspective leaders are active in developing networks with external institutions. These actors initiate change in response to both the internal and external environment of the cluster. Such efforts open the clusters to external information and help prepare the members for changes.

6. Local business associations represent local economic institutions, where local people act as a collective to improve the development of the clusters and firms. Local business associations are useful as a medium for the association members' collective actions. However, some people think that joining business associations is not necessary and would not influence the improvement of the performance of their firms.

In addition, rotating credit savings groups appear as alternative business groups that are useful for improving social cohesion among local people as well as providing savings institutions. Some rotating groups have extended their activities beyond raising capital from their members such as joint marketing and joint input-purchasing.

7. The interplay between socioeconomic structures and the role of influential actors influences the dynamics of interfirm relationships. Deliberate actions in local business associations have stimulated the growth of the clusters that originate from the dynamic capabilities of local people. Socioeconomic structures constituted by the behavior of local people facilitate coordination as well as competition among them. Influential actors lead the decision-making processes in the local business associations that enable the cluster members to take advantage of the internal environment and external networks.

The history of the establishment of the studied Indonesian clusters provides interesting evidence about the interplay between structures and actors. In fact, the three clusters studied grew in different ways. The Manding cluster is classified as an artisanal cluster, which has shown little dynamism and seems unable to expand or innovate, whereas the Kasongan cluster is dynamic, able to deepen its interfirm division of labor, raise its performance, and break into the international market. Although I classify the Kotagede cluster as dynamic, it is
less so than Kasongan’s. It can be said that the Kotagede cluster is in an intermediate stage along the spectrum between artisanal and active clusters.

However, all the clusters were initiated by farmers (Manding and Kasongan clusters) or traders (Kotagede cluster) in need of supplementary activities for using their labor and capital surpluses through individual enterprises cooperating as well as groups of firms joining forces in business associations. When they were successful, other villagers tried to copy their neighbors’ innovative behavior, and gradually the clusters grew and turned into producer networks with horizontally and vertically specialized enterprises. Embedded ties among them made the learning process effective. Product and process innovations, new organization forms, and business opportunities emerged through the interactive processes that took place within the clusters. Embeddedness created proximity, affinity, and the basis for the development of trustful relations, which contributed significantly to the success of the interactive learning process.

Moreover, this study shows that the clusters have developed in a dynamic process, which comes from dense social networks that ensure trust and reciprocal relationships among local people. Intensive interactions among local people influenced by both economic and social factors constitute the socioeconomic structure of a cluster. The structure facilitates coordination as well as competition among local people within the cluster and, in turn, creates the dynamics of the process of developing the cluster. It also stimulates the development of individual firms as members of the clusters.

Socioeconomic structures of the clusters not only are supported by individual cooperation but also originate from collective actions that occur in local business associations. Collective action is not simply a mode of harmonizing interests but rather is employed to mitigate conflicts among local people. Some local actors in local business associations have a significant role in creating a peaceful, fair, and healthy business environment. This is part of the way they facilitate socioeconomic structures of a cluster and how they support the advancement of the dynamic process. Making rules, mitigating conflicts, and mobilizing resources are the significant contributions of local actors in the local business associations. Thus, the actors use local business associations to facilitate the collective learning of the members.

9.2 Theoretical Implications
The conceptual framework of this study (Chapter 3) describes how I consider the interplay between socioeconomic structures and the role of influential actors to explain the dynamics of interfirm relationships in the studied clusters. Drawing on Giddens’s structuration theory, new institutional economics, new economic sociology, and strategic leadership theory, I describe how social and economic factors coalesce into structures, influential actors are acknowledged as community leaders by the members of the associations, and
the interplay between socioeconomic structures and actors prevails to affect the
dynamics of the clusters.

This study adds to a growing stream of literature in strategy
management involving the emergence and performance of an industrial cluster. Although several scholars have improved the understanding of particular issues affecting industrial clusters, they neglect the integrated relation between socioeconomic structures and the role of actors. By putting forth a model of clusters based on concepts from economics, sociology, and organizational
theory; integrating different linkages; putting both competitive and cooperative
behavior of clustered firms into a model; and tracing the behavior to the clustered firms’ performance, this study contributes with a new perspective and new knowledge about what occurs in clusters, particularly in clusters in an emerging economy.

In addition, this study contributes to the development of a process
approach of leadership and strategic change in pluralistic organizations like
industrial clusters. Such a perspective become increasingly important as
organizations in many industries enter into various forms of collaborative
arrangements, possibly because the workforce has become more diversified as
internal markets and networks penetrate organizational structures and local
actors have increasingly important economic and social roles.

9.3 Policy Implications

In this study, I consider industrial clusters in developing economies like
Indonesia appropriate to explore the various dimensions of patterns of interfirm
relationships, from the bright side to the dark side of such mechanisms. I also
examine the role of local actors in coordinating the relationships. When
advocating clustering as a strategy for mobilizing rural resources, it may be
important to specify the necessary conditions for improving the clustered firms’
ability to exploit gains.

The results of the study show that the studied Indonesian clusters have
developed through a dynamic process determined by socioeconomic structures
and the role of local actors. Socioeconomic factors stimulate local people to
have relationships with neighbor firms to improve their financial performance,
manufacturing, marketing, and innovation capability. Together they have
determined what to do to improve the development of their own firms and the
clusters. Some local actors initiate some collective actions through local
business associations to solve common business problems for the sake of
collective interests.

I propose some policy considerations as implications of this study’s
findings involving the way the Indonesian government must act to stimulate,
develop, and improve its clusters. The clusters are the center of the small and
medium enterprise development and the core of the people’s economy. One of
the hallmarks of a cluster-based development is the socially organized network of relationships among local people.

This represents a departure from the standard economist’s approach to policy intervention, which emphasizes market-oriented solutions as the key to rapid economic development (aside from specific justifications for government interventions). International experience suggests that an efficient cluster leads to rapid industrial growth and a flexible industrial structure. Industrial extension programs must be reformed to be genuinely useful and likely to enhance firm-level as well as cluster level productivity.

Mainly, most clusters in Indonesia are a rural and village phenomenon, so these considerations involve the rural development policy in Indonesia. The Kotagede silver handicraft cluster is located in the central city of Yogyakarta, but the way of life of the people from Kotagede is classified as a village. Law 22/1999 on local governance has introduced the possibility of a renewal and self-rule for village institutions that were uniform, authoritarian, and corrupt under the New Order government and often in disrepute. It is an enormous task to rebuild democratic and autonomous communities after decades of intervention and often harsh political control. The new legislation has been greeted by villagers across the country as an exciting instrument for democratic revitalization of village leadership and self-government. The voices of villagers in running their community, although diverse, are strengthened. A system of checks and balances has been introduced that counters the power of the village heads.

Law 22/1999 is important for to the policy on the development of clusters. The law signals the end of the servitude of villages to the central government and unleashes long-suppressed creativity and innovation in the regions. To date, local governments have not been successful in addressing issues in the development of clusters in their areas. Clustering programs will need to be designed modularly (rather than generically) so that they can take into account local conditions, social structure, and traditional values; Indonesian people cherish their norms, their local wisdom.

Furthermore, the results of this study show that local actors take the lead in addressing issue and opportunities, and government and other public institutions generally have a supporting role. The studied clusters were not initiated by external institutions (i.e., government agencies, universities, nongovernmental organizations). Thus, I conclude that the clustering economy is a self-reinforcing process to improve the development of the clusters.

Clustering of industrial manufacturing is made possible through the growth of inter-industry relations among firms specialized by products and parts of products in the typical production process. Clustering multiplies the territorial interaction among productive and residential areas rather than sifting it out. Clustering is also sustained by a local redistribution of the population, which takes place gradually, as places of residence and production tend to come...
together in a particular location. The outcome is the formation of localized networks of socioeconomic interaction, which takes place in a relatively self-contained territorial context in which residence and place of work operate to create a sense of self-identity.

Local development is relatively more important to improve the welfare of local people, and embedded ties still exist among the community; therefore, the decision to support and nurture embedded ties within clusters seems much more credible. Local government together with local people can then make a more informed decision on whether to commit a portion of their limited resources for the creation and maintenance of local potential industrial clusters in their territory.

In addition, the cluster needs technical and financial assistance to accommodate growth processes that have been put on track by producers and buyers. Strategies must be developed that aim to link producers in clusters to markets. It is useful to establish new trade networks that are outlets for new products. Such insights may significantly increase the impact of technical and financial assistance provided when producers have become aware of the existence of more rewarding trade networks and convinced of the accessibility.

9.4 Limitations of this Study and Further Research

One significant limitation of this study is that it covers only three sample clusters. As a result, the data on the basis of clusters are not broad enough to examine the impact of socioeconomic structures on the competitiveness of clusters quantitatively. To do so, it would be necessary to study more than ten clusters. It would be interesting to perform such a study, because it would produce empirical evidence that can be proven quantitatively. Therefore, more micro-level industrial clusters are required to understand the diverse dynamics of clusters that are constituted by socioeconomic structures.

Second, the data of financial performance of the firm’s respondents are based on subjective measures, because most respondents were reluctant or unable to reveal information on financial performance regarding the monthly net profits as well as turnover. Further research could remedy this problem and assess the effect of firms’ behavior within a cluster on firm performance. Furthermore, I relied largely on respondents’ retrospective perceptions to operationalize the variables. Though it has been demonstrated (e.g., Schwenk 1985; Ruekert et al., 1985; Cavusgil and Zou, 1994; Homburg et al., 2003; Panayides, 2006) that this approach to data collection is generally reliable and valid, the findings could be strengthened with more objective data.

Three, the measurement of new product development is only one. That is product development. In the survey questionnaire of this study, there are some items that refer to the measurements of new product development. Those are product development, the improvement of equipment standards, the development of technical innovation and the development of product designs.
However, the items could not be combined into one index since the Cronbach alpha of the index had very low internal consistency (below the threshold value of .7). We tried to make the variety of combinations of the variables but the Alpha of each combination also had very low consistency. Further research may solve this problem by exploring more items that measure product development.