Scale, Space, and Place – SME Flexibility in Cross-border Industrial Clusters

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Abstract:

Theme: Growth of intra-regional trade, “production sharing,” in East Asia has brought new attention to the role of SME networks across national borders. This paper examines how Korean and Japanese networks move abroad and embed themselves in foreign territory. I look to the interplay of state, larger firms, and the SMEs in extending and rooting networks abroad. In conclusion I highlight the critical role of knowledge-transfer for effective embedding abroad among SMEs.

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Global strategies of production have ironically enhanced the specificity of the local. David Harvey wrote of the growing significance of local “fragmentations” for social identity and action, in the face of expanding standardization and homogenization across borders. Emerging global unities enhance local distinctiveness. As borders shrink and global capital seeks out production sites, there is a growing appreciation for what makes a place “special and gives it a comparative advantage.”

“Flexible specialization” refers to production of specialized goods using flexible technologies and skilled labor. With their thesis of the “Second Industrial Divide,” Sable and Piore cited conditions of scale, place, and social context supporting flexibility. Networks of regionally based SMEs [small and medium-size enterprise] overcome disadvantages of production scale by striking a balance of cooperation and competition.

The fact that SMEs have played a major role in the remarkable expansion of intra-regional trade in East Asia or “production sharing” has gained little attention. Growth among these SMEs in the new competition of “global sourcing,” suggests a very competitive flexibility. I am especially interested in the rapidly emerging networks of SMEs moving abroad within Asia. Literatures on flexibility and geographical proximity or “industrial clusters” focus on the structural embeddedness of SMEs within networks. My question then is how Asian SMEs move abroad to enhance their flexibility.
East Asian SME Networks Abroad

A new industrial cluster for autos and electronics in Tianjin, China brings together SMEs and large firms from South Korea, Japan, and China. Japanese and Korea SMEs often work between home plants and Tianjin plants, specializing production according to demand and efficiency. Larger foreign firms such as Toyota Motor in Tianjin bring along their own first-tier suppliers such as Denso, which in turn has multiple joint-ventures with local auto parts firms. It is the reliability and cost of parts produced by second and third-tier SMEs that remains critical in auto manufacture. What we learn of here is entrepreneurship, particularly new patterns of regional investment and trade.

An older industrial district for auto parts and especially textiles in Taegu, South Korea, has developed around both SMEs and local larger firms. But competition from lower-cost textile suppliers has forced the textile industry to quickly improve technology and product, moving from lower value-added to mid-level value-added goods. The $600 million Milano Project has now brought together resources of state and industry in an ambitious redevelopment project. The lesson here is that of survival and renewal in global markets, tapping resources of central, regional, and local governments, as well as a coalition of larger and smaller firms.

Among the oldest industrial districts in Asia, the Nagoya Area SMEs in Japan face a quite different challenge. High fixed costs of land, labor, and energy have forced first larger firms, and now smaller firms offshore. Rather than simply reforming the local production base, a number of Japanese SMEs now have followed larger Japanese firms to China, South Korea, Thailand, and elsewhere in Asia. How do SMEs move abroad? The Gifu Center for Investment and Trade promotes foreign investment among Nagoya area SMEs. Of special interest here is the importance of planning, teamwork, and implementation across national borders, whether with states or larger firms in the task of identifying SME partners abroad, developing markets, and finally investing in production.

Industrial districts represent a new opportunity for linking SMEs across borders. SME support policies differ widely among APEC members, in part due to the distinctive market opportunities and technology levels of each nation. Support for offshore investment, or for attracting foreign investment in local SMEs likewise differs, and unfortunately has drawn little attention among support policies. My thesis is that new SME networks in Northeast Asian Districts have been particularly successful in the flexible linking of local and global production and markets. This paper begins with industrial districts, continues with the role of SMEs, their strengths and weaknesses.

Regional Industrial Clusters

Space

A new regional space has opened in East Asia, characterized by the flow of manufacture and assembly across national borders. What does the growth of intra-regional trade and investment among SMEs tell us of the coordination of production spaces? Castells wrote of a “space of flows” in contrast to a “space of place.” Whereas location in a specific geographical space has long been the basis of personal and national identities, the confluence of globalization and emergence of an “informational society” has dramatically changed dominant patterns of social organization. Flows of capital, technology,
information, or indeed of interactions among organizations have come to shape much of what we produce and consume. The space of flows might be described as “the material organization of time-sharing social practices that work through flows.” Such flows characterize what Castells termed, the “network society.”6 People now live out their lives at the nexus of the space of flows and the space of place, of simultaneous globalization and localization. Transnational investment in local production joins the international flows of capital, technology, and demand in a specific domestic space or place. Clearly transnationals play a major role in coordinating space and place, but what of SMEs?

**Place**

The irony of the globalization process is the growing importance of the local. As one scholar noted, “Hypermobility cannot completely obliterate production ensembles in space.”7 **Clusters** can be defined simply as “groups of producers making the same or similar things in close proximity to each other.”8 We can initially explain clustering by simply geography and sector, i.e., a particular location and a specific industry or craft. Institutions, and often precedents of concentration and community help reduce uncertainty and transaction costs, particularly among SMEs within clusters. Clustering within special economic zones, export zones, or other designated industrial areas with public investment in infrastructure, is an initial strategy to capture the economic benefits of proximity.9 Equally important are ties to markets beyond the cluster, usually through traders and/or larger firms. But far more important than simply location are the business and social networks that develop among the producers.10 Indeed, some would argue that such networks distinguish “industrial districts” from simply clusters. Business networks permit processing and sharing of information. Social networks based on face-to-face communications encourage the trust necessary for maintaining a flow of information and mutual learning.

Institutions such as foreign and local business associations and labor organizations, as well as industry promotion and coordination offices in government can promote the deepening of industrialization in the shift from clusters to what we term “community.”11 The shift will demand resources and take time, but remains critical for local knowledge and technology transfer. External linkages often appear the priority in cluster promotion as government offices scramble to attract foreign investors and their technology. But weak internal ties linking business and social networks among local and foreign SMEs severely curtail the “backward linkages” or spread effects of learning from foreign investment and technology.12 Successful industrial clusters can thus be distinguished not only by location and sector, but also by vertical ties to transnationals and horizontal links to networks of local SMEs.

**Scale**

Previously considered a disadvantage in an age of mass production, the scale of the SMEs now appears an advantage in a global market of specialized goods, and segmented production. Scale is joined to location in the industrial district literature, but almost entirely focused on domestic clusters of local SMEs, with some attention to the role of foreign-based transnationals. The network literature has examined the social dimension of scale, but again largely within nations. The literature on ethnic networks across borders pays less attention to structural issues of country-specific SME networks that go abroad.
Global sourcing, the mobility of capital, and the ease of relocating production technologies now foster global value chains across national borders. How do SMEs gain a foothold in these chains? How do SMEs take advantage of production across national borders despite their small scale, lack of organizational resources and capital for moving abroad? *Structural embeddedness* is one response to globalization among developing nations. To *embed* means to incorporate firms into local, spatially anchored networks, which facilitate information exchange and learning. Taylor distinguished between the embeddedness context of a “developing country” to survive globalization, and the context of transnationals tapping into new economic spaces. Interviews with Korean and Japanese SMEs suggest a blend of both motives driving manufacturing SMEs responding to high fixed costs of production at home, but also with the technology and organizational ambitions to tap new markets. How do Asian SMEs embed across the region?

**Response to Globalization**

In society, cars and clothes loom large among contemporary Asian consumers, the former a major, long-term investment, the latter a short-term purchase for style, comfort, and convenience. In the economy, the two industries represent the range of manufacture from technology-intensive to labor-intensive production. And in development, cars and clothes have been engines of growth in Asia’s industrialization, and now in Regionalization. Labor-intensive production in garments was an initial phase of offshore production for Japanese and Korean SMEs, moving production closer to markets and sources of raw materials and fabric. Japanese garment firms which previously relied on trading houses now move fabric from Nagoya to Qingdao for processing, and then back to the customer in Japan within four weeks. Offshore investment has been promoted by local state agencies, but not to the detriment of the local industry. Some local SMEs now specialize production in different production sites, including China and Southeast Asia. The key is the network of customers and producers across borders.

Korean garment firms in Taegu now take advantage of integrated textile industrial parks, facilitating procurement and delivery. Fashion exhibitions provide new fora for foreign customers. Research centers provide computer-assisted design machinery and technicians to hasten development of new patterns and products. Integrated manufacture in the rebirth of the Taegu textile industry has helped Korean SMEs reposition themselves in the regional trade. Better integration of the local industry in the Taegu Industrial District has been a necessary step to upgrade the industry, prior to investment abroad.

Automobiles emerge from a long supply line of first, second, and third tier suppliers, with final assembly by the major global automobile firms such as Toyota, GM, and others. SMEs must meet stiff quality standards to capture a place in this supply line, and often must align with the product specifications of a single first-tier supplier such as Denso, Delphi, or Bosch. As opposed to the mobility of garment production, a parts supplier usually maintains a heavy investment in plant and human resources that cannot be easily moved. These firms will seldom simply uproot and move abroad, but a number of Korean and Japanese SMEs have established partnerships in China to extend their market and manufacturing base. This permits specialization of production according to geographical base, usually by recalibrating machinery rather than investing in new production techniques. Unlike multiple sourcing and multiple supply lines in the garment trade, long-term SME links with a single first-tier parts maker results in a more cohesive network across national borders. Denso of Japan, for instance, will encourage Nagoya SMEs to
join Chinese partners to produce in Tianjin. Korean SMEs likewise will work with either Korea’s Hyundai or Japanese automakers and establish joint ventures in Northeast China. The key for both Korean and Japanese “supporting industries” of SMEs in auto parts is again cohesive networks of manufacture and market. Industrial districts permit long-term investments with nearby partners, joining suppliers and consumers in the supply-chain.

**SME Paths and Evaluation**

How does SME investment abroad differ from large firm investment? Indeed, how do SMEs go abroad in the region? Traditionally SMEs within a specific industry have moved abroad with a larger local firm. A garment maker for instance, will move abroad with a trading firm or a spinning company. A parts maker would move with a first-tier supplier. The larger firm may even provide financial support and land, and perhaps even arrange for a local partnership. The SME brings management, marketing and manufacturing experience, insuring the local firm of reliable, high quality processing of their products. Improved transportation and investment infrastructures at home and within the region have made it possible for more SMEs today to move abroad without the patronage of a larger firm. In this case, however, the SME will have first developed a customer base in the target country as an exporter. Sometimes the same SME will have developed production ties with local SMEs for meeting a customer order.

Improved regional communication, and pressures to move abroad have prompted some Japanese and Korean SMEs to develop “alliances” among SMEs, with customers and production orders shared among firms in different parts of Asia. For instance, a group of Japanese SMEs would open a trading office in Malaysia or in Hong Kong, and then works in tandem with a local firm to supply Japanese manufacturers or trading houses. The Japanese side would provide information on orders and specifications, and cooperate from Japan in filling contracts. In one of the more successful examples of “technology sharing” promoted in the “Joint Ministerial Statement” of the 2002 APEC SME Ministerial Meeting in Mexico, the alliance may extend to transfer of technology, and even of technicians, but seldom direct investment in building a plant offshore.

A fourth path of offshore investment has gained growing attention recently. Support Centers promoting foreign investment in the target areas. Promotion includes consultation services for identifying a local partner and local customers. International Enterprise Singapore under the Singapore Development Board. [www.iesingapore.gov.sg](http://www.iesingapore.gov.sg) is one example. The Hong Kong Trade Development Council [www.tdc.org.hk](http://www.tdc.org.hk) likewise promotes SME investment. Thailand’s Board of Investment is yet a further example of local government promotion of regional SME investment in supporting industries.

**Strengths and Weaknesses**

Others have written more generally of SME advantages in industrial districts such as flexibility, lean structure, entrepreneurship, and cohesive networks across borders. Some attention has also been given to their role in both social and economic development. But what is the actual contribution of regional SMEs to the local industry? Japanese and Korean SMEs bring their know how in machinery and management to Tianjin, China, or Rayong, Thailand. One advantage is experience with machinery, particularly the ability to recalibrate existing machinery for new products. A second advantage is management experience in filling orders from larger firms, including planning, production timetables, and most importantly, experience with the specifications of particular products. Scale
here can also be an advantage in permitting far greater flexibility for the SMEs competing with larger firms. Family owned and managed SMEs can respond more quickly to global market trends than larger firms. Family SMEs can adapt to technological improvements more quickly, and change production lines more rapidly than their larger counterparts. Rapid changes in production technology, consumer tastes, and information channels permitting more specialized, smaller production lots favor the SME model of networked manufacture over the larger firm model of mass production.

The disadvantages of SMEs in regional cross-border investment in industrial districts are likewise quite clear. Big firms have the management resources for moving abroad and operating abroad, including experience and information. I would especially highlight the advantage of two or three decades of offshore marketing, and more recently of manufacture among larger firms, particularly in Japan and now also in South Korea. Larger firms move organically from an offshore trade office, to sub-contracting manufacture to local firms, and then to investment in their own plant abroad. Trade provides a customer base and familiarity with local government and business networks. Sub-contracting provides entree into a local network of production partners. Finally, production abroad brings the Japanese or Korean firm directly into a local supply-chain, including the social networks necessary for effective marketing and manufacture.

SMEs usually must move abroad in a far shorter timeframe, and with fewer in-house resources than larger firms. As one SME owner/manager told me recently, “who do I have to send abroad but myself?” Family firms often send younger members abroad, particularly college graduates with some background in the local culture and language. But maintaining the cohesive structure of SME manufacture and marketing abroad will inevitably demand the commitment and frequent on-site presence of owner/managers. But if SMEs generally lack the offshore experience of larger firms, they also lack the extensive information resources on local markets abroad, manufacturing partners, and larger issues of political economy such as local tax structures, labor relations, and trade supports.

Conclusion

Giddens emphasized the “disembedding” from place and local practice in the process of modernization and globalization. Customs and practices identified with a particular village, region, or nation are disembedded with the influx of international trade and investment.16 Others have highlighted the extension of global patterns with the “penetration of world market rhythms to connect physically separate communities,” and of “integration into the new time and space of world markets.”17 Modern society tears space from place as we spend more of our lives in interaction with absent others, communicating at a distance. As disembedded institutions come to join local practice with globalized social relations,18 local networks must adapt vertically and horizontally, globally and locally. How do these local practices become re-embedded in global patterns?

Maskell and colleagues argued that as knowledge of a production process becomes standardized, codified, and widely available, a specific locale loses its production advantage to areas with lower fixed costs of production. The revolution in information and communication technologies has intensified the process of codifying and disseminating “best practice” production techniques, depriving traditional production districts in higher cost areas of their advantage. One response is innovation, creating the
initially “tacit” knowledge that maintains a competitive edge in higher value-added production. But few SMEs can specialize in advanced technologies, or command the research resources necessary to constantly move ahead on the technology frontier. Of greater interest here is the ability of SMEs to transfer “tacit knowledge” of production and organization abroad to maintain and enhance their flexible response to new market opportunities at home and abroad.
Endnotes


5 This study is based on an earlier paper titled, “SMEs in Northeast Asian Industrial Districts – Bridging Local and Global Markets.” The paper was presented at the APEC Study Center Consortium Conference in May of 2003, Phuket, Thailand.


