

Session VII: SMEs and Micro-enterprises: Promoting Growth and Competitiveness

Learning Communities and Global SMEs

Dennis McNamara, Georgetown University, USA

For Presentation at APEC ASC Conference 2005:
“Building an Asia-Pacific Economic Community.”

Session VIII: SMEs and Micro-enterprises: Promoting Growth and Competitiveness
May 24, 2005, 11:45-13:15, Hotel Shilla, Jeju, Korea

Abstract:

Manufacturing SMEs moving abroad in APEC face a challenge today of craft versus standard. Investment abroad in production facilities deprives globalizing SMEs of home country advantages, without assurance of similar contextual advantages abroad. Context-specific advantages include networks of specialized producers, adept in local knowledge-sharing networks regarding technologies of machinery and organization, as well as regarding local labor and state resources.

A case study of Korean and Japanese manufacturing SMEs in China and Thailand respectively, reveals strong home country links but relatively weak ties to local host country networks. I find these global SMEs adept in adjusting to international market standards, but less skilled in forging ties with local sector networks. Exporting back to home country markets, SMEs in this initial stage of DFI have been marked by globalization but not localization.

Creation of a “learning environment” among SMEs in the region provides one solution, driving a continual process of integrating local craft with global standards. At the level of firms, I cite Sabel’s “pragmatist alternative” of drawing local craft into global markets. Solutions offer hope of technology transfer for the host country, and of innovation advantages abroad for the global SMEs in the region.

**

What is the next challenge for offshore investment among manufacturing SMEs in APEC? What common goals can be established to enhance cross-border investment and trade among SMEs? And what role can APEC play in building this regional investment community? The challenge is innovation, particularly in blending advantages of local craft with the demand for global standards. The goal is that of “learning communities” rather than simply “hubs” or “clusters.” Learning communities anchor FDI by fostering effective knowledge-sharing among local and foreign SMEs in the cluster. APEC can

play a major role in mapping regional SME networks (McNamara 2005c; 2005b) and identifying effective strategies of knowledge-sharing.¹

Knowledge

Knowledge is the key to flexibility (McNamara 2005d). Knowledge can be defined either as a reflection or replication of objective reality, or more as a belief within a particular set of experiences. Nonaka takes the latter “constructivist” approach in defining knowledge as “justified true belief,” conditioned by the subject’s point of view, their sensibility, and the character of their experiences. The same author then looks to the context that “harbors meaning,” a common time and space in which knowledge is created and shared (2001:13-14; 2000). Daniel Bell described *knowledge* as simply a statement of facts based on a reasoned judgment, but was careful to distinguish knowledge from news or entertainment (1973:175). Castells followed Bell’s lead in distinguishing *knowledge* from *information* or more simply, ‘data (1996:17).’ A parallel distinction between tacit knowledge and codified or explicit knowledge has gained wide attention in the literature on knowledge and technology transfer in the development process (Radošević 1999). Knowledge is controlled and shared in global markets today largely within global value chains of production and marketing. The concept of such chains extends the continuity of production and distribution to organization among lead firms and suppliers large and small, and to institutions of the public and private sector sustaining the flows.

Knowledge transfer within the chains proceeds along two dimensions. On the one hand, a vertical flow of information develops between the transnationals and the local suppliers. Explicit knowledge of organization and technology moves along this axis in the form of specifications and manuals, and often through seminars or even training sessions at the headquarters of the transnationals. But the transfer of tacit knowledge is more difficult along this vertical axis, given differences in culture and experience, and limited opportunities for the shared space and time of communication. On the other hand, a horizontal flow of knowledge develops among a cooperating group of supporting industries within the target nation. Continuities of location, ethnicity, schooling, or religion, often promote a cultural basis for transferring tacit knowledge as well. 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 might term “community (Aldrich 1999; McDonald and Vertova 2002).” In contrast, weak internal ties linking business and social networks among local and foreign SMEs can impede the “backward linkages” or spread effects of learning from foreign investment and technology (UNCTAD 2001:15).

Challenge

Globalization can be measured in trade volumes or monetary values of DFI (direct foreign investment). What the statistics do not reflect is the intensification of the demand

¹ See the report of the Seminar on “Mapping Policy Experiences for APEC SMEs,” Thai APEC Study Center, Thammasat University, May 19-20, 2005.

for conformity to global standards which often frustrate international market hopes of local SMEs (Schmitz 2004).

Pushing beyond the simple compromise of craft and standard, Timothy Sturgeon drew wide attention with his reinterpretation of the network thesis. He first extended the simple distinction between “relational networks” and arms-length, contract-based networks even within Asia. The dominance of Japan’s keiretsu or Korea’s jaebeol in networks of SME suppliers, led Sturgeon to term these “captive production networks.” In such “hierarchical, captive networks,” he wrote, “dominant lead firms coordinate tiers of largely captive suppliers (2002:481).” He limited the term “relational networks” to German and ethnic Chinese networks in East Asia where social ties drive cooperation.

Perhaps of greater interest here is his analysis of a new type of industrial organization: the modular production networks. In contrast to the relational networks based on tacit knowledge, modular networks thrive on “highly codified links between lead firms and suppliers that allow the system to attenuate the build-up of thick tacit linkages between stages in the value chain.” He concluded that captive networks and relational industrial districts can become isolated from global competitive dynamics, whereas the more “open” modular production networks where “codified linkages allow the system to operate without excessive build-up of asset specificity and mutual dependence (486-87; also Motohashi 2003).”

Standardization has caught the attention of even the author of the now familiar “post-industrial divide,” Charles Sabel has recognized the growing demand for certification beyond local market requirements. Initially highlighting the advantages of small-scale Italian production networks of Northern Italy, he has gradually expanded the thesis of localized learning in industrial districts with a reorientation away from simply deeply embedded craft traditions (1995). He argued for instance that Japanese commitments to firm rather than craft, generalists rather than specialists, and group learning and monitoring may enhance flexibility beyond embedded networks of specialists. The argument seemed to overlook, however, the practice of relational contracting between larger and smaller enterprise which presumes a deeply articulated social context supporting firm commitments. Yet it is significant that his initial effort to broaden the perspective from craft looked to Japanese practices of learning and monitoring.

Sable more recently engaged the growing tension between specialization and diversity in industrial districts (2002). He distinguished the locally embedded “craft” firm from the “pragmatist” firms conforming to global standards. Knowledge of “substance and process,” he argued, does indeed “stick” to the local social fabric, and affects commitments to share knowledge in learning networks. But the certification that insures transparency for global sourcing erodes the “stickiness” of firm-specific knowledge. Pragmatist firms active in global chains find ways to detach tacit knowledge from local contexts if only for transparency and global efficiency. This also permits local reflection on assumptions of management and production practices in view of rapid changes in global markets.

Sturgeon's "modular production networks" of codified knowledge do present a challenge to captive or relational networks. But the challenge is not one of substantive transformation towards modular production, but rather one that captures the advantages of both local and global. Sable's suggestion of a pragmatist alternative appears more relevant, recognizing the value of the local but also the challenge of global standards. I would argue that integration of craft and standard is particularly critical in the case of SME investment abroad, whether for local benefits of technology transfer, or for investor benefits of local innovation.

Case Study

Global SMEs can tap local resources of tacit and codified knowledge only through intensive ties to local industry. Indicators of these links or *embedding* for global SMEs in local clusters abroad include factors at the level of firm and of sector. Independence versus affiliation with larger enterprise is one factor, structure of ownership and management another, and domestic versus export market a third factor. Among factors of the industrial sector, I looked at support groups such as financial associations or business associations, and the organization of host country SMEs in the sector. The results of that study have been reported in another paper (McNamara 2005d) and are only summarized here.

If ties to local networks of manufacture and marketing remain critical for localized learning, Korean and Japanese SMEs moving abroad in China and Thailand remain largely insulated from the local context abroad. Ownership among SMEs of both nations moving abroad seems to favor independence rather than collaboration with local partners, though for different reasons. This preference for independent corporate structure is related to market orientation, with neither Korean or Japanese SMEs in this study targeting local markets, though again for different reasons. The diversity and size of markets for manufactures in China has drawn the interest and investment of larger Korean enterprise, but not the investment of SMEs studied in Qingdao and Tianjin. Japanese SMEs in Thailand likewise serve an export market or larger Japanese manufacturers on site. Moreover, the narrow industrial base to date in Thailand does not augur well for a reorientation to indigenous markets anytime soon. A market orientation towards exports or supply of home country enterprise in China and Thailand discourages investment in joint-partnerships with local entrepreneurs.

How important are associations for SMEs? Matsushima argued that cooperatives and chambers provide the information critical in development of Japan's SME clusters. The problem is that "SMEs concentrate too much on immediate sales and have little capacity to constantly gather/analyze broad-based information and formulate a long-term strategy for major changes in the business environment (2003:1)." But the tradition follows ethnic or home country regional roots abroad, rather than the broad-based chambers. Osaka SMEs, or Nagoya area SMEs in the Aichi Cooperative gather regularly in Bangkok, just as the Busan area SMEs gather in Qingdao, or the Gwangju Area SMEs in Tianjin. What we do not find are ties to the larger Japanese Chamber of Commerce Bangkok, or to the Korean Chamber in Beijing. The latter larger organizations promote local links mainly

for larger enterprise through information, introduction services, seminars, and joint-meetings. Recognizing the problem of weak local ties among SMEs, Japanese and Korean trade promotion organizations have initiated various new efforts to foster better local roots in East Asia.

Goals

Asheim and Isaksen (2000) argued that the flexibility demanded in the less standardized and predictable Post-Fordist economy demands constant innovation based on interactive learning and co-operation qualitatively different than the hierarchical control of the earlier coordination. Their intriguing conclusion that “an important part” of even codified knowledge results only from localized learning remains to be tested. What is clear however, is the significance of the interplay among place, learning, and dynamic comparative advantage for SMEs moving abroad.

Linking place to innovation, Porter emphasized the national roots of a changing or dynamic comparative advantage (1998a; Tallman et al., 2004). He later wrote of the critical role of industrial clusters where local engagement permits “access to important resources and information (1998b:88).”

If sociologists look to national systems and economists to the organization of the economy, economic geographers look to an intermediate space of local systems between national institutions and the individual economic actor. Yeung wrote of such systems evident in institutional relations among “business organizations, local institutions, trade associations, and research institutes (1998:303).”

Writing of a “learning economy,” Conti first defined the local system as “a place of integration between contextual knowledge and codified knowledge,” linking transferable knowledge to manufacturing, while adapting such expertise to the local context (2002:33). He distinguished four dimensions of such a milieu: territory, organization, dynamics of learning, and an industrial culture. The latter refers to the “historical memory of the milieu, knowledge and technical background.” *Organization* refers to a system of interdependence and reciprocity, usually in voluntary organizations. Conti concluded: “learning is a socialized and collective process based on a territorialized organization of relations between actors. It is organization that defines different paths for the creation of different knowledges, as the repositories of non-reproducible economic, social and institutional practices (2002:35).”

APEC Recommendations

Knowledge creation and knowledge sharing appear critical to the task of innovation, and to effective cross-border investment among SMEs. APEC can play a critical and indeed unique role in fostering “learning communities” through a *mapping* project. The project would develop a profile of SME networks, supporting institutions, and finally knowledge transfer practices.

1) Mapping SME Networks. This would include a review of domestic SMEs networks, both regional and sectoral, usually through cooperation with regional and sectoral associations or cooperatives. A second step in this review would look to networks of supporting industries by distinguishing groups of SMEs [regional or sectoral] associated with specific larger firms, often in a hub and spoke pattern. A third step would include SMEs coming from abroad, again whether in cooperation with larger multinationals or independently according to sector.

2) Mapping Supporting Institutions for SMEs. This would include a survey of public and private institutions in each member economy concerned with SMEs, including government policy offices, financial institutions, and business associations and sectoral cooperatives. A second part of the survey would review leading information sources on SMEs in each member economy.

3) Mapping knowledge transfer in SMEs . This would review best practices in knowledge transfer both vertical with larger firms, and horizontally among networks of SMEs. Here training and relevant education systems and strategies would be reviewed, as well as practices of knowledge transfer in different sectors.

References

- Aldrich, H. (1999) *Organizations Evolving*. London: Sage.
- Asheim, Bjørn, and Arne Isaksen. "Localised Knowledge, Interactive Learning and Innovation: Between Regional Networks and Global Corporations." Pp. 163-198 in Eirik Vatne and Michael Taylor, eds., *The Networked Firm in a Global World: Small Firms in New Environments*. Burlington VT: Ashgate, 2000.
- Bell, Daniel. (1973) *The Coming of the Post-industrial Society: A Venture in Social Forecasting*. New York: Basic Books.
- Castells, Manuel. (1996) *The Rise of the Network Society*. Volume I, *The Information Age: Economy, Society and Culture*. Malden MA: Blackwell.
- Conti, Sergio. (2002) "Small and Medium Sized Enterprises in Space: The Plural Economy." Pp. 19-44 in Eirik Vatne, and Michael Taylor, eds. *Networked Firm in a Global World: Small Firms in New Environments*. Burlington VT: Ashgate.
- McDonald, Frank, and Giovanna Vertova. (2002) "Clusters, Industrial Districts and Competitiveness." Pp. 38-64 in Rod B. McNaughton, ed., *Global Competition and Local Networks*. Burlington VT: Ashgate.
- McNamara, Dennis L. (2005a) "Innovation among Global SMEs in APEC: the Challenge of Local Learning ." Paper presented at a seminar on SME Promotion Policy in APEC Economies titled, *Mapping Policy Experience for SMEs* by the Thai APEC Study Center at Phuket, Thailand, May 19-20, 2005.
- _____. (2005b) "Power and Place in Global Value Chains – Regional Coherence in East Asia." Paper presented for Panel titled, "Global Value Chains and Local Capacity – the Significance of Scale, Space, and Place in Asian Investment." International Studies Association, 46th Annual Convention, Honolulu HI March 5, 2005.
- _____. (2005c) "State and the Spatial Fix of the Korean Auto Industry: Crisis, Control, and Cohesion." In Glenn Morgan, Richard Whitley, and Eli Moen, eds., *Changing Capitalisms? Complementarities, Contradictions and Capability Development in an International Context*. New York: Oxford University Press, 2005.
- _____. (2005d) "New Places but Old Spaces – Fostering Flexibility among Asian SMEs Abroad." Under review at *Organization – The Critical Journal of Organization, Theory and Society* (Sage Publications).
- _____. (2002a) *Market and Society in Korea – Interest, Institution and the Textile Industry*. London: Routledge Press, 2002.

_____. (2002b) "Trust and Technology Transfer in Global Production Chains." Pp. 180-188 in International Social Economy Association ed., *Proceedings of the International Symposium on Unemployment and Poverty - Causes and Remedies*. Rome: INAIL, 2002.

Motohashi, Kazuyuki. (2003) "The Japanese Model: Shifts in Comparative Advantage Due to the IT Revolution and Modularization." *Journal of Japanese Trade & Industry* (November/December): 30-35.

Nonaka, Ikuji, Noboru Konno, and Ryoko Toyama. (2001) "Emergence of 'Ba:' A Conceptual Framework for the Continuous and Self-transcending Process of Knowledge Creation." Pp. 13-29 in Ikujiro Nonaka and Toshiro Nishiguchi, eds. *Knowledge Emergence*. Oxford: Oxford University Press.

Nonaka, Ikuji, Georg Von Krogh, and Kazuo Ichijo, eds. (2000) *Enabling Knowledge Creation: How to Unlock the Mystery of Tacit Knowledge and Release the Power of Innovation*. Oxford: Oxford University Press.

Piore, Michael J., and C. F. Sabel. (1984) *The Second Industrial Divide: Possibilities for Prosperity*. New York: Basic Books.

Porter, Michael. (1998a) *The Competitive Advantage of Nations*. With a New Introduction. New York: The Free Press.

Porter, Michael. (1998b) "Clusters and the New Economics of Competition." *Harvard Business Review* (Nov-Dec.): 77-90.

Radosevic, Slavo. (1999) *International Technology Transfer and Catch-up in Economic Development*. Cheltenham, UK: Edward Elgar.

Sabel, C. (1989) "Flexible Specialization and the Re-emergence of Regional Economies." Pp. 17-70 in P. Hirst and J. Zeitlin, eds., *Reversing Industrial Decline? Industrial Structure and Policy in Britain and Her Competitors*. Oxford: Berg.

Sabel, C. (1995). "Turning the Page in Industrial Districts." Pp. 134-158 in Arnaldo Bagnasco and Charles F. Sabel, eds., *Small and Medium-size Enterprises*. London: Pinter.

Sabel, C. (2002) "Diversity, Not Specialization: The Ties That Bind the (New) Industrial District." Pp. 107-122 in Alberto Quadrio Curzio and Marco Fortis, eds., *Complexity and Industrial Clusters: Dynamics and Models in Theory and Practice*. New York: Physica-Verlag.

Schmitz, Hubert. "Globalized Localities: Introduction." Pp. 1-19 in Hubert Schmitz, ed., *Local Enterprises in the Global Economy*. Northampton, MA: Edward Elgar, 2004.

Sturgeon, T. J. (2002) "Modular Production Networks: A New American Model of Industrial Organization." *Industrial and Corporate Change* Vol. 11, No. 3: 451-496.

Tallman, Stephen, Mark Jenkins, Nick Henry, and Steven Pinch. (2004) "Knowledge, Clusters, and Competitive Advantage." *Academy of Management Review* Vol. 29, No. 2: 258-271.

UNCTAD [United Nations Conference on Trade and Development]. (2001) *World Investment Report 2001: Promoting Linkages*. New York: United Nations Publications.

Yeung, Henry Wai-chung. (1998) "Capital, State and Space: Contesting the Borderless World." *Transactions – Institute of British Geographers* vol. 23: 291-309.