

The role of a community in contributing to the development of start-up technology companies – who buys from whom, what and why?

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Abstract

This paper aims at studying the role of a small community in constructing the market for a new actor's product. This paper is based on the experience and notes collected from software technology entrepreneurs and from their stakeholders operating in Phuket. Phuket is a tourist destination place which competes against other similar places in Southeast Asia. The tourism industry in Phuket needs innovative information technology solutions to ensure its competitiveness. The multiple case study approach has been applied with several embedded levels: community, industrial district and actor. An actor can be a company or a function in a community. The first case study proposed that the market entry of new actors is supported by Marshallian industrial districts with its Italianate variant. It can be concluded that a first reference customer signal to other actors in the community to join in developing the competencies of the start-up technology companies in question. The resources of one customer are often limited to keep a start-up technology company alive, and thus to provide the technology needed by the customers. The second case study illustrates how the joint contributions to develop the competencies of a human resource supplier were lacking. The software industry as a community is relatively new in Phuket and does not possess the knowledge of how to cooperate as a purchaser for developing competencies of a supplier jointly. The conclusion of this paper is that success in a new business is dependent on customers' and entrepreneurs' joint contributions to develop their community. The results indicate that business is more than competing against each other: it is also about working in order to help the community develop itself by fostering new actors.

Keywords: Purchasing, community, group tacit knowledge, start-up technology companies

Introduction

In the literature, there has been much discussion about purchasing in enterprises, for example, by Spekman (1993) Keough (1993) and Shapiro (1985). The view point, which has been discussed relatively scantily, is the role of a community as a purchaser. O'Donnell et al. (2002) do not mention cooperation in purchasing in their studies, but they mention that small companies, even if they compete against each other, tend to assist each other. This assistance could have a purchasing dimension. The information sharing in purchasing can be a competitive advantage and therefore sensitive to be shared. The information regarded to companies' cooperation in purchasing might not be accessed easily.

Customers can buy from local suppliers to ensure that a community also has the essential competencies in the future. Customers guarantee their own future by taking care of their critical suppliers. The buying transactions in a community can happen individually by a company, but customers, even if they are competitors, can have a real or unspoken agreement to buy from a certain supplier. Knowing how the community works as a purchaser probably can include a lot of tacit knowledge, which is not readily available for outsiders. For a new supplier producing complex, high technology products, entering a small community market can be a challenging task due to the lack of a first reference, a foothold in a community.

The research question of the present study is how a community and a new actor can construct market for a product offered by a new actor. The new actor can be a new company run by an entrepreneur or a new function in a community. This function can be a resource supplier, for example, a university.

Attention has been directed towards the software industry in Phuket. This study introduces two case studies including several embedded levels. Two case studies are executed with the first one related to building business between new software companies and a tourism industry and with the second one related to building a relationship between a university and a software industry. Phuket needs to offer business models based largely on information technology solutions such as web-reservation systems in hotels. The new information technology can fade the existing business models and make new ones to flourish.

Basic concepts

The New Oxford Dictionary (1999) defines a community as a district or a country considered collectively, especially in the context of social values and responsibilities. In particular, a group of people who live in the same area can form a community. A community is formed by a set of actors with some shared elements. The substance of the shared elements varies widely in each situation to influence lives and values. The term community is widely used to evoke a sense of collectivism. An element of collectivism is collaboration. Spekman (1993) describes collaboration as a mutual commitment to the future and a balanced power relationship. Balanced power relationships in trade propose that the purchaser does not rule the relationship with an iron hand and takes into account the suppliers' interest. Park and Markusen (1994) define an industrial district as "...a sizeable and spatially delimited area of trade oriented economic specialization, be it resource-related, manufacturing, or services."

According to the New Oxford Dictionary (1999), trade is defined as selling and buying goods and services. The New Oxford Dictionary also defines trade as the practice of making one's living in business. The same source defines trade as a skilled job requiring manual skills and special training. A start-up company can be defined as one in the process of setting up business or one which has been in business for a short time, but has not yet traded their product commercially (Bank of England, 2001). In this study, the present researcher study investigates new establishments, which are either new companies or new functions in a community. Entrepreneurship is defined as an examination of how, by whom and with what effects opportunities emerge to create and exploit future goods and services (Shane and Venkataraman, 2000).

Tacit knowledge is knowledge that people carry in their minds. It is therefore difficult to access. Often, people are not aware of the knowledge they possess or how it can be valuable to others. Tacit knowledge is considered more valuable because it provides context for people, places, ideas and experiences. Effective transfer of tacit knowledge generally requires extensive personal contact and trust. Based on Polanyi's work (Nonaka, 1994; Davenport and Prusak, 2000), tacit knowledge is personal, rooted in action, with commitment and involvement in a specific context. It consists of paradigms, viewpoints, beliefs and concrete know-how such as crafts and skills.

Erden et al. (2008) discuss about group tacit knowledge. Group tacit knowledge is stated to be a result of social actions which engage individuals in collective practice. The way, how these individuals connect their activities, makes the system mindful. This means that a group, which uses the group tacit knowledge effectively, shares common mental models. It is also said to include collective practical skills, expertise and cognitions. It is deeply rooted in actions and cannot be learned by reading and talking. The tacit knowledge in a community can be assumed to be constructed largely from the same building blocks as group tacit knowledge. The group tacit knowledge definition can be also in some extent used in defining the tacit knowledge in networks. However, there can be some difference between the tacit knowledge in a group and in a community. For example, group tacit knowledge is grounded on close and active cooperation but tacit knowledge in a community can be based on loose cooperation but long term inherited knowledge of the community in question.

The new concept introduced in this study includes the community interest to develop its business capability by fostering new competence. The interest can be described by two ends of the line in which, at one end, the single customers take care of their own interests and at the other end, the community interest is strongly coordinated as in an enterprise which has a central purchasing function.

Literature review

Several researchers have divided purchasing practices into two categories (Spekman, 1993; Hayes et al., 1988; Shapiro 1985). The first one includes traditional purchasing practices, which are based on competition. The second one includes purchasing practices, which are based on partnership. In the traditional purchasing process the suppliers are allowed to compete against each other, and the suppliers are kept at arms length. The aim is to use competition to gain the best delivery, price and quality terms. Conversely, partnership purchasing practices mean among others entering the market together with a supplier and sharing the profit equally. According to Spekman (1993), Hayes et al. (1988) and Keough (1993), long-term cooperation used in partnership purchasing is believed to bring better benefits than short-term cooperation used in traditional purchasing. Long-term cooperation and working together openly bring in practice benefits which are not achievable by the traditional purchasing approach. Close and long-term cooperation with a supplier helps the purchaser use the suppliers' capabilities to advantage more than traditional purchasing. According to the scholars above, these benefits may include radical price cuts, improved product quality and more innovative products.

In order to gain the benefits listed above, the trends in enterprise purchasing have been towards reducing the number of suppliers in order to get enough high volumes for the rest of the suppliers. The target can also be on reducing spot-type purchasing in order to extend the visibility of the business for a supplier. The aim is to extend the planning horizon into the future. According to Spekman (1993), sharing information openly and knowing each others business intentions let the partners independently set compatible goals that help maintain the relationship. Spekman (1993) writes that collaborative business partners acknowledge that plans are likely to change and they establish processes to facilitate the interchange of information upon which the future plans will be built. Furthermore, instead of having legal contracts, the partners aim at increasing mutual trust.

Collaboration between the partners does not mean that conflict will be avoided.

According to Spekman (1993), disagreements and conflicts are endemic to any trading relationship. He continues to describe how the nature of problem solving has changed: "To a certain extent, dialogue and joint problem solving have replaced negotiations as the primary means of exchanging information. Through early involvement and open channels of communication, suppliers become committed to the final product and willingly share responsibility for its integrity and reliability."

The development path of the purchasing from a large enterprise's perspective is studied, for example, by Keough (1993). An enterprise can consist of several purchasing groups, for example, one for each factory. Keough (1993) proposes that purchasing in an enterprise passes several phases before achieving world class status. In the first phase, the purchasing groups operate individually, focusing on enhancing clerical and logistics skills. In the second phase, the groups concentrate on achieving the best price terms and the focus is on negotiation and cost analysis. In the third phase, the enterprise builds purchasing committees from the individual purchasing groups and nominates a lead buyer. In the fourth phase, the enterprise uses cross functional teams for problem solving. Some attention is also given towards supplier

development. In the fifth and final phase, the enterprise has cross functional supplier teams for problem solving and supplier development.

Complement aspect to the previous reviews is to investigate what has been written about the small communities. Anderson et al. (2007) describe how a small geographic size of a market advances the social interactions inside the firm, between the firms and on a broader social context. They refer to the evolution of a small Scottish town called Aberdeen, which is nowadays known as the 'Oil Capital of Europe'. O'Donell et al. (2002) found out that small companies exchange information relating to their customers behavior, sharing the over load, supplying resources and assisting each other, although they compete against each other. However, there are scarcely studies on how these companies interact and share information concerning purchasing.

Markusen (1996) categorizes industrial districts into three classes, which are Marshalian industrial, Hub-and-Spoke and Satellite platform districts. Marshalian industrial districts and its Italianate variant emphasize the cooperation between competitors to share risk, innovation and stabilize markets. Usually strong industrial associations and governmental organization exist in such districts and they provide shared infrastructure for the industry in question. Marshalian industrial districts are characterized by small and locally owned companies, and long-term cooperation with suppliers inside the district. In Hub-and-Spoke districts, the trade is dominated by one or several large companies, which are surrounded by suppliers. The cooperation of the dominant companies with suppliers includes long-term contracts and commitments. The Hub-and-Spoke districts can be differentiated from the Marshalian industrial district by the fact the hubs do not share innovations with their competitors. In Satellite platform districts, the companies have minimal intra-district trade. The Satellite platform district consists of externally owned and headquartered companies.

Companies in communities form seldom a structured purchasing organization as it can be in an enterprise. However, their interest at the general level can be assumed to be similar. The customers want to ensure that the essential resources or technologies are available at a price, quality and deliver terms which make them profitable. The practices for ensuring mutual commitment in communities can be different from enterprises. The customers of the community expect that their suppliers are, for example, committed to local values. The commitment to local values is assumed to create trust between local community members. Honig (1998) writes that in a small community in Jamaica, suppliers who attend the church and have married into the community generate higher profit.

An example of a highly horizontally integrated community was presented to this author by one of the Japanese electronic manufacturing companies. They reported having a central storage area for a group of companies operating in the same area. The benefit of having a centralized purchasing and storage area was to build sufficient volume for a supplier and to ensure the turnover of the stocks. In order to guarantee high stock turnover, the different companies agreed about the purchase items, suppliers and what components they planned to use in their future products. In other words, they shared their product roadmaps. According to this Japanese company, the benefits that the company gained through horizontal and vertical cooperation were significant.

Conclusion on the literature

Customers in a community can operate independently, or they can operate with close cooperation and share information. In addition, some of the customers use traditional purchasing practices in the community, targeting the best delivery and price terms, but some of the companies in a community use the partnership approach to thus cooperate closely with their suppliers. The assumption is that the community forms different kinds of purchasing structures, which mean various types of practices to adopt a new supplier. Based on the above, the following quadrant can be applied in taxonomy.

Table 1: Quadrant for analyzing the purchasing mode of a community

| | | |
|-------------------------------|--|---|
| Vertical integration | | |
| Partnership mode | <i>3rd quarter</i> | <i>4th quarter</i> |
| Traditional mode | <i>1st quarter</i> | <i>2nd quarter</i> |
| Horizontal integration | Individual purchasing within community | Coordinated purchasing within community |

In the first quarter, the customers operate independently without close cooperation with their competitors or suppliers. In the second quarter, the customers cooperate with each other and towards the suppliers they apply the traditional purchasing approach. They use their joint purchasing power to squeeze the supplier. In the 3rd quarter, the customers enter into a partnership with a supplier individually without cooperating with each other. In the 4th quarter, customers work closely with each other and jointly with their suppliers. The community dimension, which is assumed to be orthogonal to the other two dimensions, can include the integration of community values: for example, the community might be liberal or conservative. This indicates how a supplier should adopt the community's values in order to become a trading partner.

The creation of the trust in order to achieve seamless cooperation horizontally in purchasing can take a long time especially in a situation in which an industry is new in a community. Erden et al. (2008) has created a four level model, in which the quality of group tacit knowledge is discussed. It can be assumed that from the first level, group as assemblages, up to the fourth level, collective improvisation, it is a long trip. Similarly it can be assumed that in order to develop coordinated purchasing in a community, which needs tacit knowledge and trust among the actors, can last several years or even decays.

If the examples of the industrial district (Markusen, 1996) are used, it can be assumed that the Italianate variation of the Marshallian industrial district belongs to the 4th quarter in Table 1. The companies presumably cooperate in purchasing and build long-term relationships. Hub-and-Spoke fits in the 3rd quarter because the individual companies have long-term relationships, but do not coordinate purchasing with their competitors.

In Satellite platforms, the companies do not have a long-term relationship with local companies and they do not coordinate purchasing. Therefore, it can be assumed that companies within that district are found in the 1st quarter.

Methods and data

Two different cases are analyzed in this paper. In the first case, the aim is to find evidence of vertical and horizontal integration and its effect on purchasing practices in a community between software companies and a tourism industry. In the second case, the aim is to study how a human resource supplier, a university, is integrated within the same software industry and how the software industry has integrated horizontally with the university.

In both cases, the data was collected from software entrepreneurs, current customers, potential customers and a resource supplier. In addition, the representatives of a government organization and of industrial association were interviewed. The data for analysis was collected in two one month periods during which time the researcher stayed in Phuket. In addition, emails were exchanged with the interviewees in order to collect more information if it was needed. A total of six companies, two customers of theirs and one university representative were interviewed.

The case study approach has been used in this study. Both cases have been analyzed independently and then compared (Eisenhardt, 1989). The case has several embedded levels: a district level, a community level and the individual actor level. Phuket represented the community level, the tourism and software industry represented the industrial district levels in the community, and software companies, hotels and the university represent the individual actor level.

Case description and analyses

Phuket

Phuket is an attractive tourist destination place with more than six million visitors annually. It forms an intensive community around the tourism industry, which is the main source of income for many businesses. It offers several destination places for tourists such as hotels next to beaches, golf courses and diving sites. The software industry in Phuket provides systems to do online-booking, directory services and financial accounting. The software business is relatively new to Phuket. Most of the companies were set-up in 2000. Table 2 gives an overview of the interviewed companies:

Table 2: Figures of the software industry in Phuket

| | Established | Number of customers | Turnover | SW sector |
|-----------------|--------------------|----------------------------|-----------------|------------------|
| Company1 | 2001 | 800 | 200 kEuro | Accounting |
| Company2 | 2002 | 68 | 100 kEuro | Reservation |
| Company3 | 2002 | 120 | 200 kEuro | Reservation |
| Company4 | 1998 | 150 | 300 kEuro | Buildings |
| Company5 | 2001 | 70 | 60 kEuro | Reservation |
| Company6 | 2002 | 381 | 50 kEuro | Advertisement |

According to the chairman of the tourist industry association in Phuket, there is demand to actively develop the infrastructure in order to keep the island a competitive tourist destination place and to attract new tourists. One of the key tasks for the association is to improve the information technology infrastructure. A big portion of the hotels do not have their own web sites. The chairman explained that the importance of tourist agencies is decreasing because more and more tourists directly reserve their hotels through the Internet. There is an increasing need for software suppliers.

The tourism industry's vertical and horizontal integration into software companies

An entrepreneur of a company producing accounting software mentioned that his company used a customer as a beta test site in order to support the development of its first software system. With the help of local beta test sites, local needs were introduced and taken into account in developing the system. One of the key needs mentioned by the accountant from that customer was the fact that the electricity supply is irregular. An account system should be able to minimize damage to the database. The key accountant of the customer mentioned that local support for them was essential: if some system failures happened, then local support was needed instead of getting support from Bangkok which would have taken time. The entrepreneur of the company explained that the accountant of the customer company had recommended his system to other potential customers in Phuket. The reason behind the recommendation could be that the accountant wanted to ensure the availability of the services by anchoring the supplier to the community.

The entrepreneur of another software company advised that an important reason for his successful market entry was that the first reference customer actively shared his experience with the use of his product with existing and potential customers in Phuket. After successfully implementing the product, the entrepreneur stated that selling was easier. The entrepreneur also mentioned that he didn't give any discount to the first reference customer due to the fact that other customers would have required the same discount. The supplier developed the first version of the software alone and didn't use the beta test sites. He didn't have any previous contacts with potential customers. The market strategy of this company was that its entrepreneur actively kept in contact with its existing customers and tried to keep them satisfied. One of the customers mentioned that they wanted to cooperate with this supplier, but they expected the supplier to develop its capability to design complex systems.

There are evidences that the tourism industry in Phuket is profoundly horizontally integrated. One of the hotel managers located in Phuket City described that they openly shared the information of number of the visitors with other hotels especially in Phuket City. They also shared the load in peak seasons with their revivals. In 2007 the hotels had agreed about common goals, for example, to increase the utilization degree of the rooms. The hotel also informed the other hotels about the suppliers that they felt to fit their purpose regarding the price and quality. The manager of the hotel described that the hotels in Phuket mostly used same sources for example in order to purchase food for their restaurants.

There is a strong industrial association in Phuket. The trade association works actively to improve the business infrastructure. The association had put much of its effort to obtain a new additional water reservoir. The head of the association discussed and the owner of one of the hotels discussed that he actively shares the information of his suppliers. He emphasized that the development of the Phuket community and its business was in his and in his hotel's best interest. The head of the governmental tourism office in Phuket stated that there was a lacked of the good skills which were needed to develop the information technology infrastructure in Phuket. The tourism industry seemed to have a sense of collectivism.

The governmental organization, Tourist Authority of Thailand, also works actively to promote Phuket inside Thailand but especially abroad. The organization collects information of the number of visitors, the use of hotels, and it educates those employees who want to work with industry by giving course, for example, in easy English language.

Sharing the information between the hotels and giving opportunities to the new actors seem to propose the attitude to promote "common goodness" exist among the tourism industry in Phuket. In the organizational knowledge theory, the concept phronesis knowledge is discussed on the top of the other knowledge, episteme and techne, originally defined by Aristotle. According to Nonaka and Toyama (2007), the phronesis defines actors' ability to take an action for common goodness in a specific situation. Erden et al. (2008) uses this concept as a building block in constructing a theory concerning the quality of group tacit knowledge.

The software industry's horizontal and vertical integration into a resource supplier

Five software companies out of six complained that they had problems in getting human resources especially programmers. The local university has been producing graduate students for software industry purposes, but the graduate students have preferred capital area companies to local companies. The local companies also complained that the students' skills didn't meet their needs. The comment from the university was that the local companies used outdated technology. The interviewer asked if the students had worked together during some of the university courses with local companies in order to get more experience. According to the interviewee, this kind of cooperation did not exist.

The entrepreneurs, who were interviewed, described that they did not have much cooperation in order to share the load or to share innovation. One of the reasons given by one of the entrepreneurs was that they had not used same technology. The entrepreneur stated that there was no sense for cooperation if they did not use same type of software technology. The other entrepreneur said that they had cooperated with a hardware supplier and with web-design company but otherwise not with other software developing companies. The software industry is relatively young in Phuket and the tradition for joint cooperation has not been formed. Most of the companies were established in the early years of this decade. It might take several years before the software industry community can act in a coordinated way.

The software companies do not coordinate their efforts to express their joint interest and future plans to the university. This is very aligned with the observation that the software companies in Phuket did not cooperate. They could have created roadmaps of technologies that they planned to use. Furthermore, the local companies do not jointly try to improve their industry image although they could gain benefit from it. The university has been active in setting-up events to demonstrate their students. The local Software Industry Promotion Agency (SIPA) works aggressively to support the local software industry, although it is still relatively new in Phuket. The SIPA is a semi-governmental organization, which has a role in promoting the use of the software. The head of the local agency is also a teacher in the university.

Discussion and conclusion

The aim of this study was to find out how small communities support the market entry of new actors. Six software companies were studied in a small community. In addition, the difficulties of the university in producing suitable resources for the local software industry were discussed. The study shows that the integration of purchasing vertically and horizontally can differ inside a community depending on the industrial district and the maturity of them. The older industrial districts can have practices which the younger industries do not possess. In Phuket, the software industry is relatively young compared to the tourism industry. Therefore, the tourism industry has practices which the software industry does not have related to the cooperation and development of that specific industry sector. For example, the tourism industry shares actively the load but the software industry does not seem to have such such sense of collectivism. The conclusion based on the literature with the note of taking time to mature group tacit knowledge in order to reach phronsis is supported by this study.

The firms and the networks of the firms are seen as complex adaptive systems comprising of interacting sets of organizational and social relationships in which each actor is pursuing its own goal (Stacey, 1996). According to this study and to the literature dealing with group tacit knowledge, the additional element which needs to be taking into account is phronosis, the common goodness, in order to create effective networks. This common goodness can include elements of supporting the entrance of a new actor to improve and to extend existence of the network by bringing in new knowledge into the system. The definitions for the networks and for the definition for group tacit knowledge may seem to contradict while the other emphasizes the goals of an individual and the other common goals of a group. However, the sense of the common goodness might not exist in a large extent in pure commercial networks which do not have the community or other similar dimension to back-up the actions.

In the first case, between the tourism and software industry, horizontal and vertical integration seems to be in place. The customers, the actors in the tourism industry, even if they are competitors, actively share information about their new suppliers. The intensity of sharing information, future plans and innovation and, in addition, the strong industrial association and government organization propose that the Phuket tourism industry forms a Marshallian industrial district with its Italianate variant even if it includes elements from Hub-and-Spoke industrial districts, for examples, large international hotel chains. The tourism industry in Phuket has a strong sense of collectivism, which is built with the help of the government organization and the industrial association. However, breaking through to such a market can be far from easy, due to the fact that existing relationships with previous suppliers can be hard to disrupt. Discontinuities in the existing relationships or technologies might create the needed opportunities.

In the second case, between the resource supplier and software industry the vertical integration was weak and horizontal integration did not exist inside the industry. The industrial association did not exist for the software industry in Phuket at the time of the interview. According to one of the entrepreneurs, the integration was weak due to the fact that the companies used different technologies. The companies felt that they did not have much to share with each other. Software companies had not formed common strategies or goals or identified what technology they wanted to rely on in the future. From the university's perspective, the lack of vision for future technologies among the software technology companies caused the problem for teaching and researching. The university would have needed a vision of the future technologies shared with the local companies in order to contribute to the development of the industrial district in question. It is quite a challenging task for the university to support all the technologies and be in the front line in promoting the latest technologies into the community if the industry involvement is weak.

Managerial Implication

Based on the two embedded case studies, this author would propose that depending on the taxonomy presented earlier the market entry strategy for a new actor should formulate differently depending on the level of vertical and horizontal integration of the industrial district. For example, if the vertical and horizontal integration is weak then the new actor's role is to construct such a integration that it would ease the market entry into the community. This

prework is needed in order to ensure that the technology to be used can be accepted by the customers. In some cases, the entrepreneurs of start-up technology companies reported that they had needed to do “foot” marketing. It means that they need to put time and effort in explaining the use of the technology for the potential customers in a community.

The tourism industry ensures that the capital needed for buying the start-up software technology company’s products exist. That is important because the venture capital concept is not largely applied in Phuket software industry. The other aspect which is important is that the social capital in this small community inside tourism industry seems to support the development of new companies. The community has also strong industrial association related to tourism industry. The social network in Phuket extensively shares information concerning new suppliers. This is well inline what Anderson et al. (2007) write about the small geographical size of the city and the social interactions there. However, this study proves that the content for the cooperation is needed to be established for example by using shared technologies.

REFERENCES

- Anderson, A., Park, J. and Jack, S. (2007), Entrepreneurial social capital: conceptualizing social capital in new high-tech firms, *International Small Business Journal*, 23(3), 245-272.
- Asmus, D. and Griffin, J. (1993), Harnessing the power of your suppliers, *The McKinsey Quarterly*, 3.
- Atkins, S. (1993), Present and Future Possibilities and Explanations to Japanese Supplier Management: A Model Including Supply Chain Management, Helsinki.
- Baldwin, R. and Gagnon, R. (1993), The Transfer of Japanese Manufacturing Principles and Their Impact on Purchaser-Vendor Policies:
- Bank of England, (2001), The financing of technology based small firms. Bank of England, Domestic Finance Division, *Quarterly Bulletin*, February.
- Bidault, F. and Butler, C. (1995), Buyer-Supplier Cooperation for Effective Innovation, *Manufacturing 2000*, Executive Report Number 17, September.
- Billington, C. (1994), Strategic Supply Chain Management, *OR/MS Today*, April.
- Brealey, R. and Myers, S. (1991), *Principles of Corporate Finance*, McGraw Hill, Fourth Edition.
- Burt, D. (1989), Managing Suppliers Up to Speed, *Harvard Business Review*, July-August:
- Burt, D. and Soukup, W. (1985), Purchasing role in new product development, *Harvard Business Review*, September-October:
- Chiang-nan C., Scheuing, E. and Rich, W.A. (1993), Purchasing Performance Evaluation: An Investigation of Different Perspectives, *International Journal of Purchasing and Materials Management*:
- Bergelman, R. and Maidique, M. (1988), *Strategic Management of Technology and Innovation*, Irwin.
- Davenport, T. and Prusak, L. (2000), *Working knowledge: How organizations manage what they know*. Boston: Harvard Business School Press.
- Eisenhardt, K. (1989), Building theories from case study research, *Academy of Management Review*, 14(4), 532 - 550.
- Erde, Z., von Krogh, G., and Nonaka, I., (2008). The quality of group tacit knowledge, *Strategic Information Systems*, 17, 4-18.

Fine, C., Johnson, J. and Maggs, V. (1990), *Strategic Customer-Supplier Relationships: A Product Development Case Study and New Conceptual Framework*, Massachusetts Institute of Technology, Cambridge, MA.

Guilford, J. and Fruchter, B. (1978), *Fundamental Statistics in Psychology and Education*, International Student Edition, McGraw-Hill Kogakusha.

Johnson, C. and Maggs, V.L. (1990), *Strategic Customer-Supplier Relationships: A Product Development Case Study and New Conceptual Framework*, Massachusetts Institute of Technology, Cambridge, MA.

Keough, M. (1993), *Buying your way to the top*, *The McKinsey Quarterly*, 3.

Kraljic, P. (1983), *Purchasing must become supply management*, *Harvard Business Review*, September:

Lee, H. and Billington, C. (1993), *Material Management in Decentralized Supply Chain*, *Operations Research*, 41(5):

Markusen, A. (1996), *Sticky places and slippery space: A typology of industrial district*, *Economic Geography*, 72 (3): 293 – 313.

Nonaka, I. (1994), *Dynamic Theory of Organizational Knowledge Creation*, *Organization Science*, 5 (1): 14-37.

Palaniswami, S. and Lingaraj, B. (1994), *Procurement and vendor management in the global environment*, *Production Economics*, 35:

Park, S. and Markusen, A. (1994), *Generalizing new industrial districts: A theoretical agenda and an application from a non-Western economy*, *Environment and Planning*, 27: 81-104.

Presutti, W. (1993), *The Single Source Issue: U.S. and Japanese Sourcing Strategies*, *International Journal of Purchasing and Materials Management*:

Sarasvathy, S. (2001), *Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency*, *Academy of Management Review*, 26 (2): 243 – 263.

Shane, S. and Venkataraman, S. (2000), *The promise of entrepreneurship as a field of research*, *Academy of Management Review*, 25 (1): 217 – 226.

Senker, J. (1994), *Tacit knowledge and models of innovations*, Science Research Unit.

Shapiro, R. (1985), *Toward Effective Supplier Management: International Comparisons*, Harvard University Working Paper

Spekman, R. (1993), Strategic Supplier Selection, Understanding Long-Term Buyer Relationships, Business Horizons, 3.

Stacey, R (1996), Complexity and creativity in organization, San Fransisco, California, Bernet-Koehler Publisher.

Stuart, F. (1993), Supplier Partnerships: Influencing Factors and Strategic Benefits, International Journal of Purchasing and Materials Management:

The New Oxford Dictionary of English (2001), Encyclopedia Britannica 2001, Oxford University Press, Oxford, UK.