Profitability and Place

By
Bertil Markgren and
Bo Wictorin
Uppsala University
Department of Business Studies
Box 513, SE-751 20 UPPSALA, Sweden
Tel: +46 18 471 68 58, Fax: + 46 18 471 68 10
E-mail: bertil.markgren@fek.uu.se, bo.wicktorin@comhem.com
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How companies and surroundings are regarded and analysed varies with the point of departure. As in research of the individual and society in social science, there is an ongoing discussion about the connection between space and structure. Does space constitute or determine the foundation of the structure of a society, or vice versa? Do activities of individual units define the space? On the other hand, does quality of space define and constitute the possibilities for actions of individual units? For instance, are differences in patterns of localisations not only a function of society but of nature as well, or alternatively, is development or job-splitting dependent on market size and the development of a population base?

A very strong current in research continues to emphasize the importance of geographic concentration. Proximity is often regarded as a direct advantage for business development. Regional and national environments are held to have a significant influence on the development of firms. However, a number of studies indicate that the most vital links for firm development lie with their suppliers and customers. There is nothing to indicate that these relations are, or should be, local. This leads to a paradox. Either, business relationships do not play a crucial part, which seems absurd, or the geographic neighbourhood does not play a crucial part, which is in conflict with predominant research of geographic concentration.

In this paper we will discuss how deeply rooted companies are locally. Or, similarly posed; how dependent are companies upon their respective environments—and how important is that dependence? We will discuss this from two perspectives:

1. In what way the performance of the company is determined by conditions given on the local market, conditions that are given as a consequence of more or less locally concentrated companies.

2. In what way the performance of the company is determined by conditions that are given, on the importance of proximity to customers and suppliers, and in which geographical space.

Concentration of economic activities

The interest in studying concentrations of economic activities is not a new phenomenon. Important contributions have been provided by Marshall (1920), Weber (1929), Hoover (1948) and many more. The subsequent literature in the area is more divided. It comprises efforts to track the causes of concentration, to understand what have an influence on efficiency and flexibility, dynamic development, learning and innovativeness. Others deal with economic consequences that may appear when companies are close to each other. Others again bring out the part played by the socio culture and institutional structures that develops in connection with concentrated industrial establishment. There are different opinions about extension of concentrations, and if it is principally competition or cooperation between companies that explain rise in concentration of companies. Some are interested in spatial concentration as a phenomenon that can be explained in it self, while others investigate the importance of spatial concentration in improving companies' performance. (Piore & Sabel, 1984, Best, 1990, Porter 1990, Dei Ottati, 1991, 1994, Krugman 1994, Enright 1994).

In spite of the increasing interest in regional development, economic growth and international competitiveness, there are few investigations about cause and effect and what kind of factors that are crucial for a company's performance. Explanations of the competitiveness in geographical concentrations are based on conventional theory, that joint localisation of companies or establishment in an area gives opportunities to use specialised equipment, favours growth of suppliers and specialised work force, creates possibilities for big purchase, attracts customers and reduces general overhead and infrastructural costs. The geographical proximity makes possibilities of transferring specific knowledge and entrepreneurship prosper. Likewise, supply of local competitors and rivalry among them contribute to development, while at the same time information and knowledge are spread from company to company in the local environment, in spite of the competitiveness.

Criticism against the description of concentration.

In a critical examination of literature and investigations of industrial district, as well as in their own investigations of the Italian district, Lazerson & Lorenzoni (1998) show a different outcome than earlier studies. Firstly they criticize the occurring interpretation that districts have their origin unlike big companies. Secondly (they point out that) districts are often dependent on resources of production outside the district and foreign companies have sometimes played an important role in the district. Thirdly they have doubts whether absence of costly coordination and transaction in an industrial district can be explained by cultural homogeneity. They argue that their examples show three myths of industrial districts; changes occur endogenous, relationships between companies are symmetric, and public associations can take over the role of individual entrepreneur's leadership. All in all they argue that the most outstanding inter organisational factor in industrial district is probably the amount of companies' mutual transactions.

Larsson (1998) reached a similar result in an investigation of Swedish machinery industry. It was not possible to find suppliers and customers among Swedish producers of machinery in any kind of industrial district. There were small companies that exported all their production without having any subsidiaries abroad, while others sold most of their production within Sweden but had all their technological relationships with companies abroad.

Investigations (Markgren 2001) carried out among manufacturing companies in Sweden confirm the statements of Larzerson & Lorenzoni and Larsson; that companies are dependent on resources outside the district. The aim of the study was to describe and analyse the interplay between geography and business relations of manufacturing companies, in order to increase understanding of how companies depend on other companies and on the space, and how this influences the companies and the view on location. The results of the investigations show that there are no strong connections between a company's purchasing and selling activities and the local environment, nor between the most important business relations and the local environment.

In what way the performance of the company is determined by conditions given on the local market, conditions that are a consequence of more or less locally concentrated companies.

In many of the studies referred to, concentration and its influence on the profitability of companies is basically an implicit assumption. Despite this there are, as has already been mentioned, an almost complete lack of empiric studies investigating differences between co-localised and comparable companies' profitability or other measures of performance. Several studies rather consider the concentration of similar or complementary companies as a measure of a more favourable development in itself. This without answering whether comparable companies, with everything else equal, are performing better or less in any aspect. From a business economic point of view, the most relevant question is of course if joint localisation contributes to create a higher level of profit?

Whether a company can be considered more profitable than another is partly dependent on which concept of profitability is being used. Apart from the time aspect the conclusions are influenced by what the company's result is related to, such as total or equity capital, turnover and number of employed.

Differences in profitability could essentially be due to on one hand the different prices of factors of production (inset goods, salaries etc), on the other hand on the company's various abilities to use the resources effectively. This means that company A might well have a considerably higher level of profit when expressed as return of total capital, than company B, even though company A at the same time may show a lower level of efficiency when it comes to making use of the resources possessed. Company A's better result might be due to for example a lower level of salaries. In traditional localisation theory it is mainly differences of factor prises that are in focus.

In the discussion about clusters and innovation systems, what is interesting is the company's ability of using inset resources more effectively as a result of joint localisation. We should therefore not expect co-localised companies to necessarily have a higher return of total capital, but to have a higher production level than comparable companies.

The benefits of a joint specialized labour market

Already in the late 19'th century, Marshall (1890, 1920) noted benefits of agglomerations of companies. Through contributions not least from Krugman (1991) and Porter (1990) a strong renewed interest in the importance of company concentration has risen. One of the main benefits of co-localised companies that can be noted is that company concentration enables the creation of a joint specialised labour market. This means that these companies can be assumed to have better possibilities of recruiting specialised workforce than similar companies with other location. When the companies co-localise their enterprises, a joint pool of specialised workforce is created, which among other things makes it easier for the companies to adjust the working force according to variations in the extension of the enterprise. The joint localisation also contributes to increasing the local labour market's power of attraction on workforce with corresponding specialisation.

The importance of the mobility of the workforce to spreading of knowledge

The mobility of the workforce is also assumed to play an important part in how knowledge is spread among companies. Spreading of knowledge is assumed to happen easier among co-localised companies than between companies with a wider pattern of localisation. In line with this the co-localised companies should be more innovative than equivalent companies with a wider pattern of localisation, since they can be assumed to have better and faster access to new knowledge.

In studies of "Localized knowledge spillovers" (LKS) researchers have come to the conclusion that companies established close to important knowledge centres are given better prerequisites for introducing innovations than competitors established in other areas (Breschi S & Lissoni F, 2001, with reference to: Nelsson, 1959, Arrow, 1962). In Saxenians (1994) studies of Silicon Valley and Route 128 the conclusion is reached that companies have more to gain from a sufficiently high mobility of employees between them than they risk loosing. The mobility of people can be especially important for the spreading of so-called silent knowledge, which in difference to so-called codified ditto is based mainly on the earlier experiences and values of the individuals (Keen, 1987)

and often requires immediate physical proximity to be transferred from one person to another.

But in Breschis & Lissonis study of the literature of the LKS field, they are critical towards the econometric inception of many studies. Even though these are able to prove a connection between for example investments in private respective public R&D and production development (ex. Mohnen, 1996, Feldman 1999), the question of how the local knowledge links look is largely left unanswered. This is where the mobility of the workforce could be seen as an important link. Mainly because they have better options of implementing new knowledge on the market at a higher speed than competitors established elsewhere.

However, Saxenians & Hsus' study of Silicon Valley and the Hsinchu Taipei district in Taiwan (2001) also shows that the mobility of people can be of essential importance not only to knowledge spreading in a district/local system but also in a global context. The authors also point to the importance which the flow of people between these districts has had to the creating of social bonds and development of business relations. This "density" of knowledge, business and connections has also been possible to maintain for a relatively long period of time. This last conclusion indicates that the mobility of workforce could, apart from its direct influence on spreading of knowledge, indirectly also be of importance to the extent of the knowledge exchange happening between the companies via less formal connections, outside the professional business connections.

Dahl & Pedersens (2003) study of informal information flows between engineers in the ICT industry on North Jutland also points to the importance of informal contact within the cluster. Though nothing in the study indicates that engineers who have had high mobility during their career on the labour market would have a more developed informal network than others. In the report Dahl & Pedersens also conclude, with reference to von Hippel (1987), that the informal contact courses do not necessarily follow the same pattern as the business relations of the companies (Ibid p 5). The knowledge exchange happening between company employees is to a great extent mutual (Ibid p 5, with reference to Rogers, 1982; von Hippel, 1987 and Scrader, 1991). Dahl & Pedersen argue that the results of the investigation also show that the exchange

of information is more of specific character and comprises not only common knowledge of low value to the companies. The knowledge exchange also includes such knowledge which a company would unlikely wish to spread to competitors. (Ibid p 20).

To sum up, the above research results consequently indicate that a joint localisation of similar companies could contribute to:

• The creation of more favourable prerequisites for the companies to adjust the need for specialised workforce to changes in the state of the market
• That the spreading of knowledge between companies is stimulated by the mobility of specialised workforce happening between the companies – directly as well as indirectly via the informal personal network created as a result of this mobility.

In other words, the benefit which this is assumed to bring to the companies ought also to be possible to interpret as co-localised companies having a higher level of productivity than similar companies established elsewhere.

Do companies of joint localisation have a higher level of productivity than others?

In a study of the connection between the productivity of labour of companies and the functioning of the local labour market, the topic analysed was which meaning the concentration of similar enterprises (workplaces), the concentration of specialised workforce, the mobility of the specialised workforce and the size of the local outlet market had to the productivity of labour of the companies (Wictorin 2006). The study comprised all workplaces[1] within the IT, machine and rubber industries in Sweden in 2001 and the analyses concern aggregates of workplaces within respective local labour market as well as individual workplaces.

In the analyses a static model was used which, apart from the above mentioned variables, also included information about the number of employed per workplace and the age of the

[1] The material comprise a total of about 16 000 workplaces in private sector in the three lines of business. After reductions (in the analyses only workplaces with a minimum of 10 employed are included, and workplaces with a lack of balance information, as well as extreme values have been excluded) around 3 000 workplaces remained.

workplace. In a more limited selection of companies, additional variables were added as well, for example the capital intensity[2] of the company.

Not in any case[3] could a significant connection between the productivity of labour of the aggregates or the workplaces and the concentration of similar enterprises or specialised workforce be observed.

However, the analyses showed a clear connection between mainly the mobility of the highly educated specialised workforce and the level of productivity of labour within the IT industry. In the other two trades a similar result was not reached.

The connection between the highly educated specialists within the IT industry and the productivity of labour followed a distinct curve linear connection (inverted U-turn). This means that there could be a certain ”sufficient mobility level” which is the most optimal to the companies from a productivity point of view. On the other hand, the corresponding result concerning the less educated specialists, indicated that the connection, surprisingly enough and harder to explain, follows an ordinary U- curve!

In Laursen et al (2005) a theoretical explanation of the character of the connection regarding the highly educated specialists is given. Here it is argued that (with reference to inter alia Matusik & Hill, 1998) too low a level of mobility could be a disadvantage, since the company specific competence gradually developed by the employed, in time runs the risk of becoming obsolete and that the companies’ ability of embracing new knowledge could be restrained. On the other hand, a certain degree of company specific competence is of great value to the company, which means that too high a workforce mobility is not preferable to the company either.

Regarding the size of the local outlet market (here measured as the total number of employed within respective local labour market) the study did not show any convincing evidence that it would contribute to explaining differences in productivity of labour. Though the analyses did show a strong connection between the size of the district and the dispersion of the productivity

[2] The multi variant regression method used was OLS throughout.
[3] The only exception from this rule was that the results indicated that concentration of highly educated specialists might be of a certain importance to the working productivity within the IT industry.

of labour of the workplaces within respective local labour market (the IT and machine industries). As the size of the district increases, the productivity of labour of the most productive workplace of the district increase as well, while the productivity of labour of the districts least productive workplace decreases. This could also be seen as a result of increasing competition between the companies, corresponding to the growing size of the district and the increasing number of companies. However, increased competition for workforce for example does not seem to bring any obvious benefits to the industry as a whole, but that the number of both ”winners” and ”losers” increase.

In what way the performance of the company is determined by conditions that are given, on the importance of proximity to customers and suppliers, and in which geographical space?

Proximity is often considered a direct advantage for business development. In traditional market theory, the place for interchange has no expression of time and space. In a business network perspective, the space is where the exchange takes place—a virtual room connecting the two locations of the operators. In focusing on the interaction between companies, the network of business relationships covers several places. Each relationship is in that way the place of exchange. The mutual dependence of business relationships that characterises networks of such relationships describes the economic geography of dependence and covers endless variations and possibilities.

Investigations of companies in Sweden (Markgren 2001) show that a majority of the companies’ most important business relationships are outside the region. The same is true for types of cooperation (other than in purchasing and selling), and particularly for technical cooperation. In all, 169 companies have been investigated, and more then 1 400 of their business relationships. One-fourth of all investigated companies were separated from other local companies that were included in the investigation and had no relationship with any of the other companies mentioned by the investigated companies as being suppliers, customers, or some other business relationship in the local area. Only four of the local business relationships were classified as mutual, that is, each company in the relationship mentioned the other as one of its most important local suppliers or customers. The investigation shows that there are no strong links between the companies’ most important business relationships,

and in particular links between technological connections in the local environment. The connection between companies' dependence of local business relationships seems not to be strong in particular.

Companies obviously need other companies to sell to and to buy from in order to survive. A business enterprise presupposes that returns are larger than costs and that the enterprise is profitable or yields a good return on capital. However, a company's assets in the balance sheet are basically without value if there is no one to interact with. To obtain revenues customers are needed. Costs depend on business exchanges with suppliers and on decisions to either buy or self-produce. A company as such does not provide the full truth of its business-structure, and only indirectly provides very little information of analytic value about that structure.

The investigations (Markgren 2001) did not test the connection between companies' profitability and dispersion of their business relationships. In a test of the connection between the investigated companies' productivity of labour and dispersion of the companies most important business relationships the companies have been grouped in nine categories. Group 1-3, named the Local group, has mostly local customers and suppliers in a falling scale, i.e. Group 1 has all three most important suppliers and customers locally and group 2-3 are less locally imbedded. Group 4-6, the Swedish group, has mostly customers and suppliers in Sweden apart from the defined local area. Group 4 has all three most important suppliers and customer in Sweden. Group 7-9, the foreign group, are represented in the same way, i.e. Group 7 has the three most important suppliers and customers outside Sweden and group 8-9 has mostly customers and suppliers from foreign countries. All the investigated companies are situated in the same area of Sweden, Småland, known for entrepreneurship and spirit of enterprise. Table 1 below show the nine groups in compare of different levels of productivity of labour.

Table 1. Companies and profitability of labour depending on where their most important suppliers and customers are located.

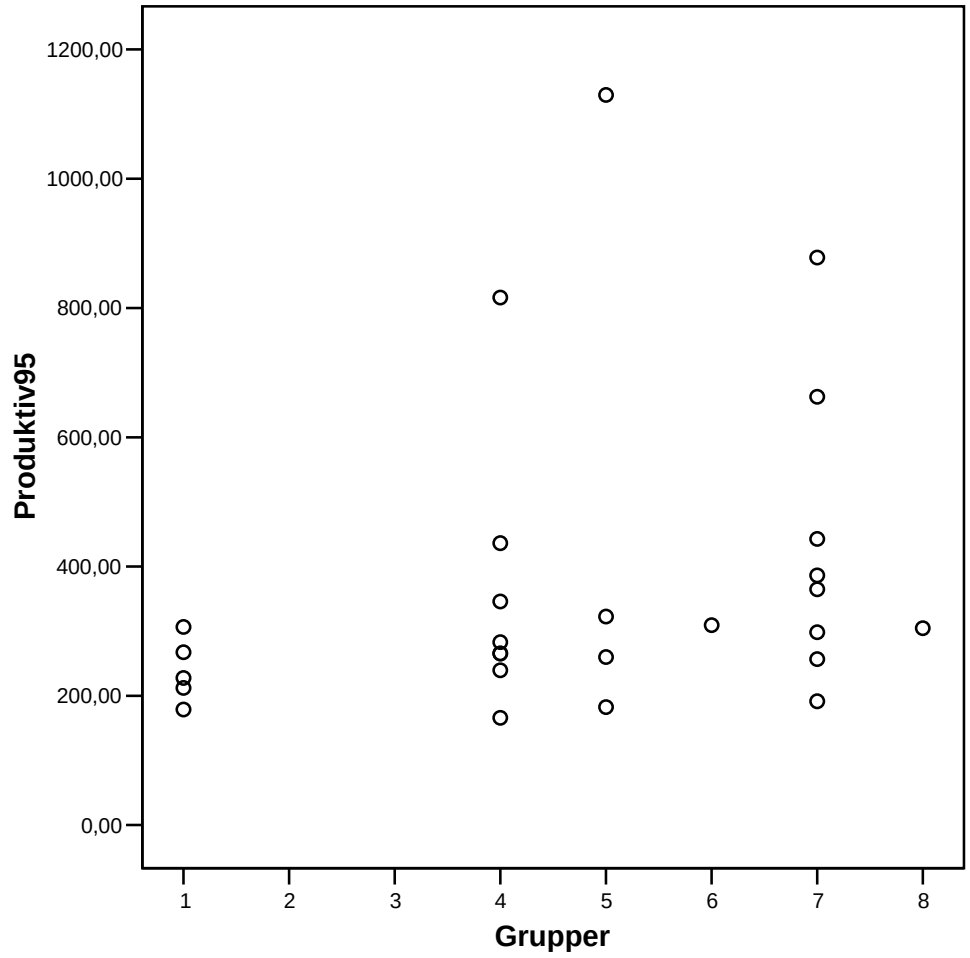

Table1 shows, in this case study, that there is a trend of higher productivity of labour if the company's suppliers and customer are situated outside the local area. Of course, this sample is very small and it is impossible to generalize to the whole population. But the result raises questions whether it is enough to look at a company's location without putting it in its context of business relationships.

In earlier investigations of 130 small and midsized companies in Sweden, Håkansson (1989) has shown the importance of co-operation. It provides a channel for transfer of knowledge and problem solving. Håkansson found in his investigations that the empirical findings did not contradict the hypothesis that the best correlation between profit and collaboration was when

companies invested about half their development volume in external collaborations. The result from the investigation also showed the difficulties in finding a direct correlation between profit and share of external technological development. In our case, it its impossible, at this stage, to draw similar conclusions about the correlation between profit and technological co-operations between the investigated companies and their suppliers and customers. However, we have found that Group 1-3 (Local), Group 4-6 (Sweden) and Group 7-9 (foreign) differ in share of technological co-operation with suppliers and customers. The Foreign Group has more co-operations with their most important suppliers and customer than the Swedish Group and the Swedish Group has more co-operation than the Local Group. The amount of technological co-operations seems not to be dependent on geographical proximity to suppliers and customers. Similar result was found in investigations (Larsson 1998) of companies in the machinery industry in Sweden.

Profitability and place

Though we have so far not found anything indicating that neither concentration of similar companies nor proximity to customers and suppliers would be of any importance to the productivity of the company, this does not mean that the location of the companies' activities are of no importance. The results of the above mentioned referred study of the IT, machine and rubber industries, support that such a place specific circumstance which could be of importance is the mobility of the workforce.

However, important observations are also that the importance of the mobility of workforce may vary, depending on which categories of workforce are in question, as well as the nature of the activities. The distinct connection between mainly the mobility of the highly educated specialists and the productivity of labour that could be stated regarding the IT industry could not be observed in the other two industries. In other words, the benefits of a certain ”sufficient” mobility of workforce could concern mainly qualified, human capital dependent industries, while in the more capital intense industries it might be of secondary importance or none at all.

In the same way, other place specific circumstances than those we have studied, could be of importance to the performance of the companies. For example differences between different

districts regarding the degree of heterogeneity in the knowledge composition of the workforce.

Companies and territories are mutually dependent insofar as companies depend on where their activities are carried out and territories depend on companies' activities. However a company's activities, which in practice are seldom geographically demarcated, often need to be flexible, and need to extend fluidly over flexibly defined geographically dispersed areas. Purchases and sales create interfaces that widen the space of the company, causing such space to conform less and less to the defined regional borders (i.e., defined politically or by historical convention). Suppliers and customers represent a company's immediate contact in space, and also represent its means of extension into further spatial dimensions of economic exchange involving supplier's suppliers and customer's customers. Business relationships between companies are where exchange takes place.

A company's localisation in space depends of how its business relationships develop over time. Business relationships are in this respect a part of a larger pattern. The more activity links there are in a relationship, the greater will be its economic influence. Studies have shown that a limited amount of suppliers and customers accounts for a large part of a company's purchases and sales, and has important effects on profits (Håkansson 1982, 1989, Hägg & Johanson 1982). From a network perspective, a company's place, that is, its connections to other companies and its on-going business relationships will, apart from localisation, be decisive for the development of the company.

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