

ORIGINAL SCIENTIFIC PAPER

Social Aspects in Buyer-Supplier Relationships of SMEs in Hungary

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ABSTRACT – Cooperation among companies was brought to the focus of attention by the fast changes of economic circumstances and the role it can play in coping with risk, appreciating all those characteristics which can help fast reactions and adaptability, like faith among business partners and long run relationships. The entrepreneur him/herself has a great influence on the characteristics of cooperation as well, besides these processes pushing them to the direction of cooperation, whose intention to get involved depends on his/her skills, abilities, but such characteristics of the company like scale, fields of activities affect it too. Economic, social and cultural circumstances are of major importance too, among which the above mentioned factors pursue their effects. Cooperation among companies can happen on any fields of the firms' activities, for example research and development, marketing, purchase, or trading. This present paper intends to introduce the reader to the characteristics of supplier-purchaser relationships of small- and medium sized enterprises, based on an empirical research's experiences. According to our opinion, we can draw conclusions on the intention to cooperate concerning the nature of the buyer-supplier relationships of companies, so a wide range of information can be concluded on small- and medium sized enterprises' partnerships.

KEY WORDS: *supplier-purchaser relationships, SMEs, Hungary*

Introduction

Small- and medium sized enterprises receive more and more attention these days all over the world considering their economic, and their social importance. Economic processes and their fluctuations caused an increase in the uncertainty of economic decisions and appreciated flexibility on all fields of companies' management. The ever stronger competition and permanent change in circumstances forces the actors of the economy to renew themselves from time to time, to search for new methods and new solutions to their problems. Networking and the evolution of a broad scale of international relations among companies can be regarded as one of these innovative solutions.

Partnerships have always been playing an important role in the lives of the majority of the small- and medium sized enterprises, mainly because of the limited nature of their resources. But uncertainty accompanying changes and the requirement of enhanced flexibility brought about major changes both in the quality of company cooperation and in the circle of the participants.

The evolution and development of Hungarian small- and medium sized enterprises shows major differences from the international trends. This specialty is explained by several factors by the authors (for example by historical traditions, and by socialisation inheritance



of loose business faith, by the lack of inheritance effect, by the valuable nature of political relationships and their economic effects, etc.) (See for example: Róbert 1999, Román 2007, Kuczi 1998, Czako et al. 1995, Gábor 1997.). Hungary's small- and medium-sized enterprises show resemblance to neither the development process based on economic logic characteristic for the Western part of Europe, nor with the SME sector of Asian countries which is based on social traditions. Its evolution and development can be regarded as an organic process as its major fragment had evolved based on obligations after the changing of the Regime. On the other hand social traditions had not played major role in its development. All these factors determine the operation, attitudes and practice of the actors of the Hungarian SME sector.

All these specialities are of major importance even if Hungarian SME sector does not show major differences concerning statistical data from other European countries. This is the reason why we will have to be careful in using the results of international researches (for example Observatory of European SMEs, 2003). This is even more important in case of the data of the North-Hungarian Region.

Our research intends to fill in this gap, searching the answer for the question what type of work distribution specialties can be observed in the chosen circle of the small- and medium-sized enterprises on the one hand, while on the other hand what kind of characteristic differences can be found compared to international surveys. Based on these researches we intend to answer the important question of whether the analysed circle of Hungarian entrepreneur had already managed to form real cooperation or not.

Methodology

In my empirical work I used the questionnaire accomplished in the framework of the FKFP 0015/2002. education and research project. The data basis constructed based on the results of the survey contains representative data according to employee number and field of activity of 217 small- and medium-sized enterprises of Borsod-Abaúj-Zemplén county (10-249 employees). Furthermore, 16 micro enterprises' (1-9 employees) answers were also used, but only case of the questions concerning the subjective opinions of entrepreneurs about tendencies. In case of these questions I always guided the attention to treat these results with precaution. The county's structure of SMEs concerning the scale of enterprises shows major differences from neither national nor European statistics. If analysing only enterprises employing more than 10 people the distribution of small- and medium-sized enterprises is 80-20 percent.

For the analyses of the data I used SPSS 14.0 software package. I analysed the sample by descriptive statistics, multi-variable analyses, cluster-, factor analyses and by correlation showing the strength of stochastic relationship among variables.

In order to be able to draw general conclusions based my sample I paid special attention to the structure of my sample. I used the layered sample technique belonging to the group of random samples. The reliability of the sample was 95 percent, the sampling error $\pm 6,16$ percent. During the analysis I used pair wise method when treating missing values, I only used the full answers in case any questions. In my research I considered 0,05 significance level to be relevant and gave the probability values by the distinct questions if they differed.



The situation of Borsod-Abaúj Zemplén County

In this paper we would like to demonstrate the county's situation only by laying some data, given the limited framework of this paper. The per capita GDP is 1355 thousands HUF, which is 67 per cent of the national average (KSH, 2006a). The same fallback is perceptible in investments, where the county's per capita performance is 70.3 per cent of the national average (KSH, 2006a). The county shows underdevelopment in terms of the economic organisation's statistics as well. Low enterprising willingness implies unfavourable economic situation as well. 4.8 per cent of the country's registered organisation can be found in the county, about 63 thousands, which are enterprises in almost 90 per cent of the cases. This statistic proves that enterprising here is far below the national average. The number of enterprises vested for a thousand inhabitant is 77 while the national average is 120 (KSH, 2006a). It partly contradicts the GEM's subsequent survey, as according to it the Northern-Hungarian region is the 4-5th in the region's hierarchy in terms of enterprising activity. According to the authors the better data can be the sign of convergence, in which motorway-building can act as a catalyser. (Szerb, Varga, 2004). In terms of research-expansion, performance is below the national average again. (KSH, 2005a, 2005b).

Unfavourable economic situation reflects in the social indices as well. The unemployment rate was 11.7 per cent in the first quarter of 2006, whilst the national average is 7.7 per cent. We can find further unfavourable social tendencies while analysing emigration and polarization.

Results of the empirical research

In the course of the research the cooperation declared by companies (when the company filling in the questionnaire declared involvement in cooperation) and latent cooperation were treated separately. In this paper we focus on this latter. (The question was the following: Are you involved in any types of cooperation beyond buyer-supplier relationships (cooperation: long run partnership among independent small- and medium sized enterprises which aims to achieve some kind of common goal going beyond a distinct action, a one-time transaction.)

Latent cooperation was analyzed by the characteristics of buyer-supplier relationships, their share, geographical distance and the time-horizon of the relationship. Companies had to give the characteristics of their three most important buyer and supplier.

Literature emphasizes the advantages of long run cooperation, because of the routines and the evolution of mutual faith, by which companies can realize economic benefits. A possible benefit of this kind can be the ever decreasing cost of processes.

According to our work hypothesis *rational companies will form permanent partnerships as strategic decisions within a relatively narrow geographical area.*

In order to be able to test this hypothesis we asked the companies about their three most important partners.

The average share of the most important purchaser is higher than 50 percent, but we face a high level of standard deviation (St dev=27,9). The most important supplier's share is slightly beyond this, it is 48,3 percent (St dev=25,2). A weak but significant relationship can be found between the shares of purchasers and suppliers ($p=0,01$, Pearson Correlation=0,302)



which mean that the concentrated nature of purchaser and supplier relationships are interrelated, companies with a concentrated circle of purchasers tend to have more concentrated supplier relationships.

After analysing the share of the most important partners, the length of the surveyed companies' buyer-subcontractor relationships was analyzed.

Table 1. The average length of buyer relationships according to type of the buyer and size of the company

Size	Type of the buyer	Average (year)	N	Standard Deviation
10-19	Consumer	10,10	31	5,31
	Small and medium sized enterprise	10,33	12	6,41
	Large enterprise	7,95	19	4,74
	Local government	7,50	2	3,54
	Total	9,42	64	5,33
20-49	Consumer	13,58	12	4,38
	Small and medium sized enterprise	8,13	23	3,92
	Large enterprise	9,14	21	5,15
	Local government	12,67	3	2,52
	Total	9,83	59	4,85
50-249	Consumer	23,25	8	19,73
	Small and medium sized enterprise	9,71	7	4,64
	Large enterprise	10,64	14	5,56
	Local government	9,00	2	1,41
	Total	13,58	31	11,94

When analysing the length of partnerships it can be concluded that the average length of relationship with the most important buyer is over 10 years (St.dev=7,059). Partnerships among companies and their suppliers also last for almost 10 years on average (St.dev=6,04).

The analysis of buyer-supplier relationships of companies is made more difficult by the fact that companies' chances to survive differ according to their size, so the average age of the groups of companies also differ. So the average age of partnerships increases with the increase of the scale of companies.

That's why we introduced a new variable by filtering the age of companies to decide the permanent nature of these relationships by measuring the length of the relationships as a share (%) of the companies' age.

The variable expresses the faith of buyers to the company and the company's loyalty to its suppliers.

$$\text{Length of the partnership as a share of the companies' age} = \frac{\text{Time period of the partnership (year)}}{\text{Age of the company (year)}}$$



The average value of the permanency index is 0.783 in case of the most important buyers, while 0.72 in case of suppliers which shows that companies' relationships can be regarded to be stable.

It can be concluded based on these tests that there is a connection between the permanent natures of the surveyed companies' relationships: if a company decides to be involved in a permanent relationship, it is more likely to act so in all of its partnerships ($p=0,000$, the most important and second important buyer's Pearson Correlations 0,721; the most important and second important supplier's Pearson Correlations 0,657). This means companies tend to harvest the additional gains of cooperation as strategic decisions.

After this the buyer-supplier relationships were analysed according to their geographical concentration. According to our working hypothesis there is a connection between the size of companies and the geographical concentration of their relationships and the geographical concentration and the permanent nature of cooperation.

Local markets are generally very important for the surveyed companies. The smaller the size of a company is, the more likely it is to be connected to the local environment, to the local market, because of its limited resources and the characteristics of its purchasers. It was cleared that personal contacts and human factors generally are decisive in respect of the cooperation's success. That is why they play a major role in forming permanent cooperation.

When analyzing the partnerships from the geographic point of view it can be concluded that there is a statistically significant relationship between the geographical distance and the size of the company involved in cooperation ($p=0,01$, Eta 0,341). That means, that the smaller the company is, the more like its partnerships are concentrated. These are demonstrated by the following figures.

Figure 1. Geographical concentration of suppliers according to the size of the company

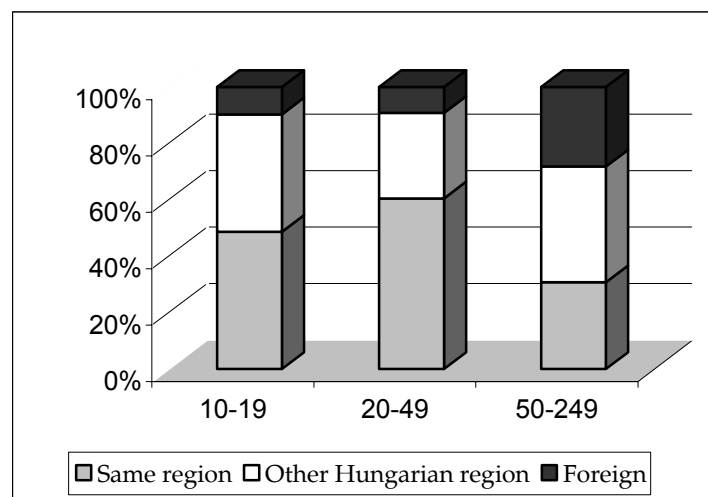
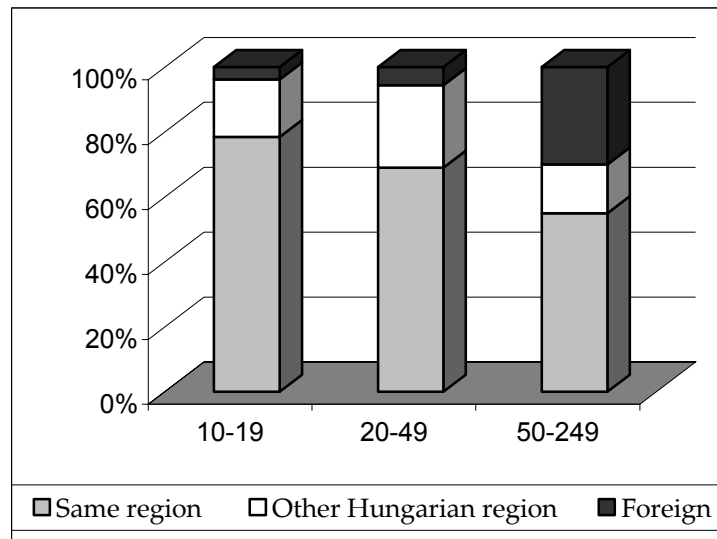




Figure 2. Geographical concentration of buyers according to the size of the company

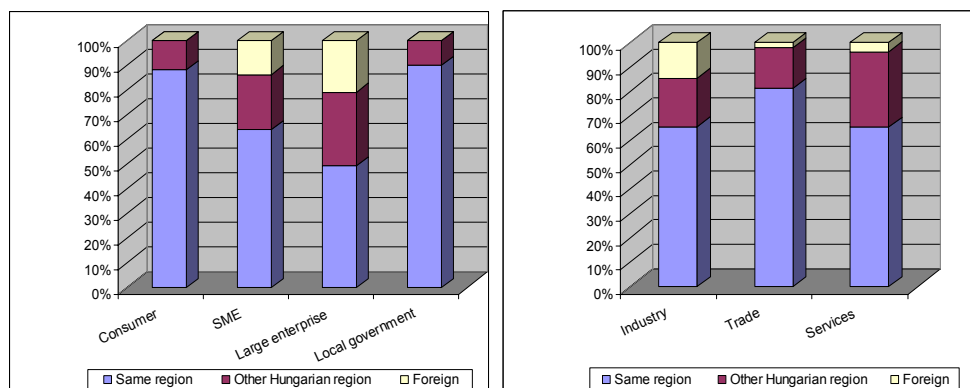


The further extent of cooperation proved to be matched with the more permanent nature of relationships.

On the other hand, both the characteristics of activities and their types are decisive in the aspect of geographical situation of the partners ($p=0,000$, Cramer's $V=0,259$). Buyers of companies in the fields of merchandise and services are more concentrated geographically; more distant partnerships and international activity are rather characteristic for industrial companies. The main connections are shown on figure 3.

About 90 percent of the partners of companies supplying directly consumers or local governments can be found in the same region the firm is situated in. Buyers of those who sell to small- and medium sized or large enterprises are less concentrated, but even in their case, partners pursuing their activities in the same region play a major role (63,7 and 49,3 percent).

Figure 3. Geographical concentrations of buyers according to the affiliation and field of activities of the buyers



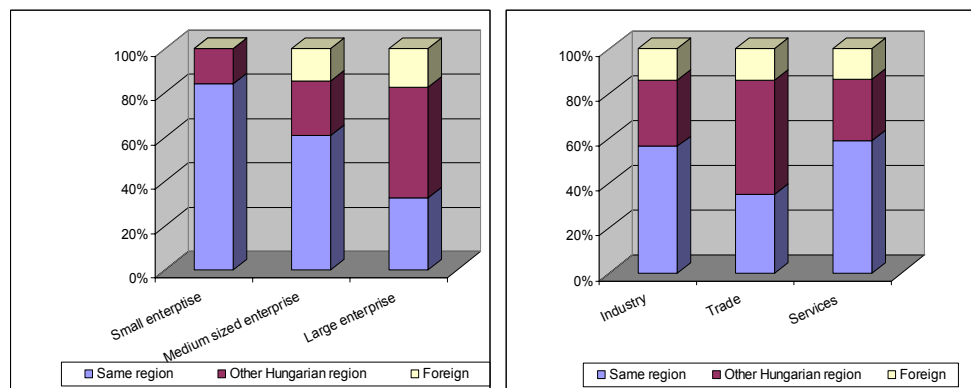
Suppliers' geographical positions differ both according to the type of supplier and the field of activity. Suppliers of small enterprises can usually be found in the same region where



the company is situated in. With the increase of the supplier company's size the probability of having more distant partners increases too ($p=0,000$, Cramer's $V=0,304$). This context is shown on figure 4.

Inter-regional relationships of both industrial and service sector firms are over-average important (56,5 and 59 percent). In case of services major differences can be found according to branches of services pursued (transportation and financial activities are less concentrated).

Figure 4. Geographical concentrations of suppliers according to the affiliation and field of activities of the companies



The time-horizon of the surveyed companies' buyer-supplier relationships and the geographical concentration was analysed separately. The stochastic relationship between the permanent nature of relationships (the length of the partnership as a share of the companies' age) and the geographical location of the buyer-subcontractor was tested.

Based on the edification of the sample the more close partners are situated to each-other (the buyer and its supplier), the more lengthy their relationship will be. We can conclude that personal relationships favour the length of partnerships and human factors of cooperation can be decisive for its success.

Table 2. The average length of buyer relationships according to the geographical location of buyers

Geographical location of buyers	Average (year)	N	Standard Deviation
Same seat as the company	12,41	32	4,655
In 50 km round of the company	9,93	41	8,878
Same region	9,46	37	4,959
Other Hungarian region	9,24	33	3,873
EU member state	9,29	14	5,797
Other country	3,00	3	1,732
Total	9,99	160	6,144

High values of deviation warn us that the sample is not homogenous, so the context was analysed distributing buyers to types as well. According to the type of purchaser small- and medium sized enterprises show a significant, while large enterprises show no significant relationship between the geographical position and the length of the partnership, which



means that in case of large companies, purchaser partners' geographical distance does not play an important role in the permanent nature of the relationship.

The permanency of the partnership (percentage form) and the geographical position of the purchaser also show the same context, geographical closeness of the purchaser increases with the permanency of the partnership ($p=0,02$, $\eta^2=0,117$).

The above mentioned observations concerning the cooperation among companies shed light on the contradiction of the time-horizon and geographical aspects of partnerships.

The geographical concentration of partnerships is beneficial for the companies involved as it contributes to the permanent nature of relationships on the one hand, giving additional economic advantages for the companies, but on the other hand, concentration denies the requirement of economic rationality as it causes the company to be dependent on the economic fluctuations of its close environment.

Summary

Interrelation can be found between the permanent nature of the surveyed companies most important partnerships: if a company forms permanent relationship on any fields of its activity, it will try do act so in all of its partnerships. Companies tend to harvest the additional advantages of cooperation by making strategic decisions. Permanent partnerships are usually made within a relatively narrow geographic region and as the concentration of partnerships increases so will increase the time-horizon of the relationships as well.

Permanent and geographically concentrated partnerships of small- and medium sized enterprises contribute to harvesting the additional advantages of cooperation while on the other hand make them more dependent on their economic environment. Economic rationality appears in a paradox way in this case.

This is why rationally behaving companies have to find the balance between forming economically beneficial permanent partnerships and bearing additional risk of geographical concentration.

The survey of the county was a one time, cross section research, but we see the opportunity to broaden it to the North-Hungarian Region, with some adaptation of the questionnaire. This would enable us to make a regional comparison and moreover, to compare our results with the Observatory of European SMEs results on small- and medium sized enterprises.

In the framework of the Laky Teréz Foundation's grant an experts' questionnaire will be accomplished in the course of which we would like to get to know the opinions of other parties (supporting institutions, authorities) too. The results of empirical researches will be controlled by this expert questionnaire and interviews will be made for the situation of small- and medium sized enterprises too, asking the representatives of institutions which influence small- and medium sized enterprises directly, or indirectly.

Further qualitative research should be made, as the barriers of our research showed, which evolved from the complex nature of relationships among companies. This complexity of the system of relationships and the analysis of embeddedness requires qualitative methods to be used. Data standing at our disposal did not enable us to fully map all the



relationships between factors of partnerships, mainly in case of reasoning, so further efforts should be made to answer all questions.

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