

Clustering as a Means for Gaining Competitive Advantage in Small and Micro Furniture Firms' Marketing Opportunities

Ioannis Papadopoulos¹, Glykeria Karagouni²,
George Valergas³, Ioanna Sevopoulou³

Department of Wood & Furniture Design and Technology
Technological & Educational Institute of Larissa
papad@teilar.gr, karagg@teilar.gr

Abstract

In the era of world trade liberalization and globalization, great demands are made on the ability of SMEs to improve their efficiency and flexibility. As the era generates larger market opportunities, individual SMEs, just because of their isolation, are often unable to capture these opportunities and practice modern marketing strategies or expand to new markets - local or niche ones. Experiences in many European countries show that clusters can be a powerful means for overcoming the above constraints and succeeding in an ever more competitive market environment. The main objective of the present paper is to form efficient marketing mix strategies, able to satisfy the expected benefits that a cluster could offer to small and micro furniture enterprises. It examines the goals, objectives and investments regarding the marketing strategies in relevance with the existing marketing policies and deficiencies and the entrepreneurs' mentality, in order to determine the needs and mix of attitudes necessary to create a promising viable cluster linked to markets.

Empirical data was acquired through personal interviews in 50 Greek very small and micro firms, involved in the Furniture industry. The SPSS Statistical Programme Ver. 14 was used for the 175 variables. Regression and cross tabulation analyses were employed to examine the correlation between the existing product characteristics, their promotion actions and strategies, expected goals and investment objectives and the entrepreneurs' commitment to the creation of a cluster. The survey findings verify that firms that export and practice some kind of marketing policy tend to support more the cluster creation. The lack of new products development, the poor way of promoting the products, the inability to export and the tendency to low prices as competitive advantage prove to be the most important problems that strenghten the decision of clustering. The easier access to new, international markets and the possibility to adopt modern marketing strategies (which prove to be too remote when the firms are isolated) are the most powerful expected goals of the cluster.

The study provides empirical evidence and insights of current status in Greek Furniture firms. Furthermore, the analysis of the micro and macro - marketing environment and the SWOT analysis of the furniture sector can point out the major weaknesses of microfirms of a mature industry that clustering can turn into opportunities. The study proves

¹ Assistant Professor - Laboratory of Applied Marketing, Management and Economics - Department of Wood and Furniture Design and Technology - TEI Larissa, Tel. +30 693-7384777, e-mail: papad@teilar.gr

² Application Professor - Laboratory of Applied Marketing, Management and Economics - Department of Wood and Furniture Design and Technology - TEI Larissa, Tel. +30 694-2642497, e-mail: karagg@teilar.gr

³ Graduated Students of the Department of Wood and Furniture Design and Technology - TEI Larissa

that according to firms' expectations prerequisite for successful cluster development is the cluster's potential to access growing markets, either domestic or abroad.

This study can also contribute to public policies forming, regarding SME development with a clustering approach and specially in the field of marketing strategies.

Keywords: cluster, furniture enterprises, marketing strategies, new product development, SWOT analysis

Introduction

In our days, the globalisation and the ever increasing competition of all enterprises are a reality which also touches upon the enterprises of the furniture sector. The localisation of competitive advantages and the cultivation of synergies should be the permanent objectives for those enterprises that want to acquire knowledge, innovate and "exploit" the chances that always emerge. All these targets constitute still a more imperative need for the SMEs of the furniture sector, since the most important troubles observed among them are the lack of information, as well as lack of knowledge on technology issues, the increased cost to adapt in the new reality and the difficulties in the discovery of suitable human potential. One of the more powerful mechanisms of SMEs survival and growth is the creation of clusters (OECD 2000,2000b, 2001, Papachroni and Mavri 2006).

According to the United Nations Industrial Development Organization (UNIDO) and Rosenfeld (1996) cluster is defined as the geographic concentration of similar or complementary economic activities, mainly small scale enterprises, developing active channels of communication, targeting to the development of external economies and specialised techniques and the evolvment of collaborations among them, as well as with the public sector or with local private organizations. Thus dialogue is rather imperative among the enterprises in a cluster. Furthermore, since they face the same opportunities and threats, it is essential to investigate the marketing external environment, in which the relations, confidence and the networking of the enterprises involved should be included.

Porter (1998) defined clusters as a geographical concentration of interconnected firms and institutions in a particular sector. The linkages existing between the firms are very important in strengthening competition. Elsner (2000) further defined clusters as groups of firms that are functionally interconnected vertically as well as horizontal. The functionality approach underscores the kind of relationships existing between firms and institutions supporting the cluster and such relationships according to Elsner are determined through the market.

According to literature the characteristics of a cluster (Malerba 1993, Dumais et al 1997, Enright and Roberts 2001, Papachroni and Mavri 2006) are: the geographic concentration, the sectoral specialisation, the domination of SMEs, the tight collaboration among the enterprises, competition based on innovation, social culture which facilitates the growth of confidence, the self-sufficiency, the supporting environment, the easy flow of information and the horizontal and vertical connections among the enterprises. Empirical studies (Makios et al. 2007) showed that clusters:

- Are more often seen in developed and transient economies.
- Are more often located in cooperative shapes often of national importance, but always of major regional importance
- Are created by government (32%), by the industry (27%) or with equivalent attendance of both parts (35%).
- The financing emanates mainly from government (54%), from the industry (18%) or equivalent from both parts (25%).
- They tend to have narrow geographic focus. The 50% of these have members whose facility headquarters are not far from each other more than one hour.
- At a percentage of 89% they allocate an exclusive institution of mediation. The institutions of mediation of these cooperative shapes tend to have an entrepreneurial background from each of them.
- Finally, the goal and objective of the initiatives of these cooperative shapes is the competitiveness increase.

Besides, according to Kalogirou et al. (1994) innovativeness, flexibility and adaptability, are major criteria for competitiveness and necessary elements for the maintenance of permanent comparative advantages. Consequently suitable actions, able to contribute in the configuration of a more favourable entrepreneurial environment reinforce adaptability and the healthy and more rapid growth of Greek enterprises.

According to Folta (2006) the firms in larger clusters have different performance thresholds than firms in smaller clusters. The entrepreneurs in larger clusters require a higher level of performance to stay in business (i.e., they are more willing to abandon the firm), perhaps because they have greater access to alternative business opportunities in larger clusters.

Value chain is the most common form of business clusters. Value chains are groups of enterprises that buy and sell from each other (Scorsone 2002). Direct value chain analysis groups industries into clusters based on vertical production chain linkages. The basic criterion is that industries with strong transaction links above a predetermined threshold value are grouped as industrial clusters (Botham et al., 2001). Another important step besides direct value chain analysis is to detect co-location among industries through a separate locational analysis.

The dynamism of any cluster depends on the availability of skilled workers. This is because the growth of SMEs is not only induced by the technological innovation but also by the quality of skilled workers within the enterprise (Knor et al. 2004).

In the era of world trade liberalization and economic globalization, great demands are made on the ability of SMEs to improve their efficiency and productivity and to adapt to and be flexible as regards market, product, technology, management, and organization. As the era generates larger market opportunities, individual SMEs are often unable to capture these opportunities that require products with better quality and prices and good services after sale, larger production quantities, products homogeneous standards and regular supply. Many enterprises experience difficulties achieving economies of scale and they also constitute a significant obstacle to internalizing functions such as training, market intelligence, logistics, and technology innovation and can also prevent the

achievement of a specialized and effective interfirm division of labor, all of which are at the very core of firm dynamism (ADB 2001).

Experiences in many European countries show that clusters can be a powerful means for overcoming the above constraints and succeeding in an ever more competitive market environment. Through clustering, individual enterprises can address their current problems related to their size, production process, marketing, procurement of inputs, risks associated with demand fluctuations, and market information and can improve their competitive position (Tambunan 2005). Through a cooperation of enterprises in a cluster, they may take advantage of external economies: presence of suppliers of raw materials, components, machinery and parts; presence of workers with sector-specific skills; and presence of work-shops that make or service the machinery and production tools. A cluster will also attract many traders to buy the products and sell them to distant markets. Also, with clustering of enterprises, it becomes easier for government, LEs, universities, and other development supporting agencies to provide services. The services and facilities would be very costly for the providers if given to individual enterprises in dispersed locations (Tambunan 2000 and 2005).

It is certain that collaboration between enterprises that participate in a cluster results to the creation of passive or unconscious marketing benefits, such as joint marketing delegations to clients, trade missions, inter-cluster firm referrals and shared market information gathering and sharing, bigger dynamics in market growth, in production, the research and economy (Rosenfeld 1994, Cooke 1996, Humphrey and Schmitz 1996, Welch et al., 1997).

An interesting research study (Pacitto et al., 2007) presents the relation between marketing and SMEs growth in France and Canada. The results showed that if the marketing approach of the medium-sized firms is always focused on client distinction (more than on the market as such), competition leading to positioning is very much a part of their preoccupations and finally, these enterprises commonly practice commercial intelligence.

The main motives of enterprises, according to relevant studies (Roelandt and Hertog, 1998), to form a cluster are: the transactions low cost, the growth of new specialisations, the acceleration of the learning process, the bypass of new market entry obstacles and the improvement of their organisational behavior level (leadership, common vision and strategy, political and social support, etc).

The most common case studies in the furniture branch in Europe are: the Pas de Calais carpenters network in France (Bergman et al., 2001), the Roscommon craftsmen network in Ireland (Denscombe 1998), the K - Cluster for the timber sector in Greece, in the region of Western Macedonia, in the frame of a research program on Innovative Actions (Ntalos et al., 2004).

In Greece, there has also been developed the Hellenic Technology Clusters Initiative within the frame of regional development and international competitiveness (Makios et al 2007).

The main objective of the present paper is the investigation of the competitive advantage and the major obstacles of furniture companies that can participate in a cluster, via the SWOT

analysis and the formation of efficient marketing mix strategies, able to satisfy the expected benefits that a cluster could offer to small and micro furniture enterprises.

Methodology

In international literature (Roelandt and Hertog 1998, Wasserman and Faust 1994, DeBresson & Hu 1997, Kaufman & Rousseuw 1990, Porter 1990, Robert & Stimson 1998, Hill & Brennan 2000) a lot of methods and techniques for clusters analysis have been developed, such as: Input-Output Analysis, Network Analysis, Correspondence Analysis, Multivariate Statistical Cluster, Monographic Case Studies, Expert Opinion etc.

Usually, industrial clusters are identified through the use of analytical techniques. Popular, but also very limited, are location quotients that prove very effective when the focus is on identifying regional specialization as a form of localization economies. In contrast, when industrial clusters are defined on interindustry linkages, a large body of quantitative methods evolved around input - output tables (Hofe and Chen 2006). Two conceptually different strains are well documented in the literature: i) direct value chain linkage analysis with focus on production chain linkages, and ii) trading pattern analysis where attention is paid to similarities in buying and selling behaviour of industries. The distinction between clusters and industrial complexes plays an important role, as only industrial complexes are defined as groups of industries connected in one way or another and showing significant similarity in their locational pattern - and as such emphasize the spatial aspect of industrial concentration. Proposed methods to measure spatial proximity include regression and correlation analysis, often based on employment and population data. Besides sophisticated analytical methods, qualitative techniques - such as surveys, interviews, or focus groups - are suitable and often applied to detect additional information on interindustry relationships that are not enclosable by means of quantitative techniques. In addition, valuable information on social capital entrepreneurial climate, education and physical infrastructure, and quality of life (to name just few factors that influence a local business climate) can be gained through qualitative analysis techniques.

The methodology applied for this research was based on the completion of special questionnaires, suitably structured, following the basic principles of planning and their construction, i.e. the determination of the research objectives, the specification of the required information, the communication method, the explicit formulation and type of the questions and finally their selected order (Fink 1995, Pashaloudis and Zafeiropoulos, 2002, Blanas 2003).

The survey concentrated 50 questionnaires, which is considered a representative random sample (14%) of 350 small / micro furniture firms in Greece and specially in the area of Attiki, that included in ICAP catalog (Papadopoulos, 2005). All firms belong to the Furniture Production value chain and are suitable candidates for value - chain clustering: they are geographically closely located, serve the complete furniture value chain and recognize their weaknesses of being small and alone.

Both quantitative and qualitative data were collected through a combination of e-mailing and personal interviews to SMEs: The questionnaire was e-mailed after a telephonic agreement, so that managers had enough time to reflect on clustering. In this first contact the researcher asked the manager whether he/she was familiar to that concept. In the case of a negative answer, he/she visited the firm in order to explain, discuss and present examples of wood and furniture clusters worldwide. The interviewer would then rearrange an interview, in order to discuss the questions, clarify difficult points and complete the questionnaire. The questionnaire was pre-tested in five selected firms, in order to eliminate the list.

Interviewees were first asked to provide their views underlining the difficulties and problems that arise when "you are *small and alone*". This discussion was largely unstructured, with a series of standard probes to guide the discussion. At the end of it, respondents were requested to fill in the structured questionnaire, in the presence of the researcher. The average length of the interviews was one hour. Respondents were mostly the entrepreneurs themselves or senior executives such as directors and production managers. The data analysis techniques employed are descriptive statistics, reliability analysis, cross tabulation analysis (X^2) and regression analysis. All computations were done using the SPSS package (Norusis 1997, Pashaloudis and Zafeiropoulos 2002, Howitt and Cramer 2003). The qualitative responses are used to provide context for the statistical results obtained.

Major Findings

The major findings of the study are presented in the following:

Profile of respondent firms

From a legal point of view, the firms involved in the present survey are mainly Ltd at a percentage of 30%, 24% general partnerships and individuals respectively, with a medium turnover of 320.000 €, from which only the 16% export their products. These companies, asked to constitute a modern and effective cluster in the region of Attica, are active in the sectors of domestic furniture manufacturing, kitchen and wardrobe furniture, frames, wooden floorings, folding furniture, foamy material treatment, textiles, wallpapers production, cushions and wooden frames. The 50 cluster enterprises employ 400 workers in total (8,02 on average) who in their majority are unskilled workers at a percentage of 24%. Specialised, skilled personnel is found generally with delay (49%) or most times finding this kind of staff is difficult and often compromises have to be made (41%).

The investigation for the firms' competitive advantage was realised by rating the characteristics of their products. The ranking was done by the enterprises themselves and is presented in Table 1. Quality (9,92), competitive price (9,68) and reliability (8,98) with 10 to be rated as excellent, constitute their 3 core competitive advantages.

The above three characteristics were over and above confirmed as the most important competitive advantages by 3 other relative cross - questions of our questionnaire with 25% - 27% και 21% percentages relatively.

Table 1 also presents the results of Pearson correlation coefficient for all the characteristics of the competitive advantages, in order to realise their cross-correlation per pairs. Thus, it appears that the bigger values of Pearson correlation coefficient are presented in the variables: price - customer service (0.996), corporate image - guarantee (0.852), product packaging - product design (0.837), product quality - price (0.737) and product delivery - product quality (0.737) for significant level $p < 0.01$. That is to say that the means of the above pairs of competitive advantages do not differ statistically considerably at a 2 tailed level.

More analytically the above results show that:

- 1 the higher the price of a furniture product, the higher the level of customer service
- 2 the better the reliability corporate image of a furniture product, the bigger its guarantee.
- 3 The higher the furniture quality, the higher the price or the wider its distribution, etc.

The bigger obstacles that the sample companies face today and the ones that they would like to reduce or eliminate, if possible, via clustering are corruptness, opacity and the bad operation of the public sector, which are presented in Figure 1.

Table 1: Descriptive statistics and Pearson correlation coefficients of products characteristics of the very own cluster enterprises

<i>Product's Characteristics</i>	<i>Descriptive Statistics</i>			<i>Pearson correlation coefficient</i>								
	<i>Mean</i>	<i>S.D.</i>	<i>t-Test</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1. Price	9,68	,844	81,1	1,000								
2. Product quality	9,92	,274	255,9	,737(**)	1,000							
3. Product delivery	8,00	,404	140,0	,587(**)	,737(**)	1,000						
4. Product design	8,54	,503	119,9	,471(**)	,319(*)	,000	1,000					
5. Customer service	8,68	,741	82,9	,996(**)	,676(**)	,546(**)	,473(**)	1,000				
6. Guarantee	8,14	1,262	45,6	,408(**)	,430(**)	-,061	,180	,389(**)	1,000			
7. Reliability	8,98	,141	449,0	-,062	-,042	,000	-,132	-,062	-,126	1,000		
8. Corporate image	8,12	1,256	45,7	,691(**)	,427(**)	,152	,220	,699(**)	,852(**)	-,131	1,000	
9. Product packaging	6,88	,799	60,9	,497(**)	,337(*)	,273	,837(**)	,499(**)	-,250	-,195	-,093	1,000

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

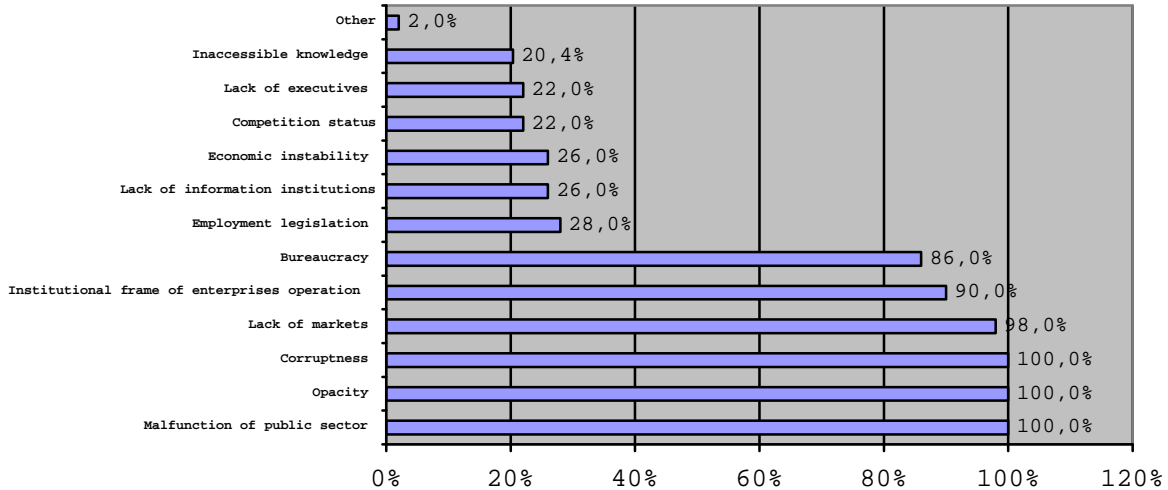


Figure 1. The main problems of clusters enterprises

A SWOT analysis (Table 2) was used to determine the strengths and weaknesses of the sample enterprises, as well as to record the opportunities and threats of external environment. The good service, the businessmen’s big experience and the competitive prices of produced furniture constitute the strengths, while the lack of specialised personnel was mentioned as the biggest weakness. Analysing the external environment, we found out that the opening of borders with the market release constitutes both an opportunity and a threat for the enterprises, but a strong reason to cluster (either to avoid the threat or exploit the opportunity) while subsidies and grants appear to be a very important chance for these companies.

Table 2: SWOT Analysis of clusters enterprises

STRENGTHS		WEAKNESSES	
Factors	Percentage %	Factors	Percentage %
Service	100,0	Lack of specialised personnel	100,0
Experience	100,0	Diesel price rise	92,0
Competitive prices	100,0	Fall of sales - negative market conditions	88,0
Product Quality	98,0	Low productivity	80,0
Innovation - market leadership	84,0	Small space of workshops	56,0
Brand Name	72,0	Limited distribution network	54,0
Big variety	50,0	Low organisation level	54,0
Big exhibition space	40,0	Small exhibition space	54,0
		Lack of massive timber	40,0
OPPORTUNITIES		THREATS	
Factors	Percentage %	Factors	Percentage %
Borders opening	100,0	The opening of borders with the illicit competition	100,0
Subsidy Programs	100,0	Big furniture multistores	100,0

Exploitation of new technologies	98,0	Competitiveness	98,0
Collaborations with foreigner partners	88,0	Sector Saturation	96,0
brand name development	76,0	Big production units	96,0
Access in new markets	76,0	Unemployment	90,0
		Fall of sales - negative market conditions	88,0

All the above 30 characteristics included in the SWOT analysis, were crossed and X^2 controls were carried out with the five (5) basic characteristics of the enterprises: legal form, turnover, exports, year of foundation, activity and occupied personnel. The results are presented in Table 2 and show that there exists an important cross-correlation of overall 69 variables between them from the total of 150 at significance level of at least $p < 0.1$ (33 for $p < 0.001$, 7 for $p < 0.005$, 19 for $p < 0.05$ and 10 for $p < 0.1$).

More SWOT variable cross-correlations are presented with the turnover and the legal form.

A certain amount of the results of Table 3 are presented here:

The produced furniture quality is not significantly correlated with any of the above characteristics (legal form, turnover, year of foundation, realisation of exports, and activity). That means that qualitative furniture is either produced by new or old, export or non export enterprises with a big or low turnover. On the contrary, the bigger the turnover of an enterprise, the more increases the leadership and the innovation of it ($X^2 = 13.5$, $p = 0.001$), its exhibition space ($X^2 = 32.3$, $p = 0.001$) and its name ($X^2 = 32.4$, $p = 0.001$). These results are absolutely natural.

The enterprises that export, produce a bigger variety of furniture ($X^2 = 5.4$, $p = 0.05$), own bigger exhibitions ($X^2 = 8.9$, $p = 0.005$), present however a lower productivity, while the development of a brand name and the access in new markets constitute the bigger opportunities for them ($X^2 = 3.0$, $p = 0.1$).

Regarding to the various threats of the SWOT analysis, competitiveness is related only with the foundation year of the enterprises ($X^2 = 7.5$, $p = 0.1$). That is to say that competitiveness appears as a threat at a bigger percentage, for newer enterprises. Market sector's repletion is statistically related significantly with the turnover. ($X^2 = 8.3$, $p = 0.05$). Finally, the existence of big productive units ($X^2 = 15.3$, $p = 0.005$) appears to be the biggest threat for the new enterprises.

All weaknesses are significantly related to their legal form and turnover. The low organisation level is not significantly related either with the foundation year, or with the realisation of exports.

Table 3: Cross tabulation of SWOT Analysis variables with profile of respondent firms

a/ a	Variables	COMPANY LEGAL FORM			TURNOVER			YEARS OF CONSTITUTION			EXPORTING			COMPANY TYPE		
		Correlation	X ²	P < of	Correlation	X ²	P < of	Correlation	X ²	P < of	Correlation	X ²	P < of	Correlation	X ²	P < of
A. STRENGTHS																
1	Product quality	NO			NO			NO			NO			NO		
2	Innovation - Market Leaders	YES	10.4	0.05	YES	13.5	0.005	YES	6.3	0.1	NO			NO		
3	Brand name	YES	41.6	0.001	YES	32.4	0.001	YES	6.5	0.1	NO			YES	19.2	0.05
4	Product variety - Diversity	YES	39.2	0.001	YES	38.9	0.001	YES	12.7	0.005	YES	5.4	0.05	YES	33.9	0.001
5	Large exhibition room	YES	32.9	0.001	YES	32.3	0.001	YES	10.6	0.05	YES	8.9	0.005	YES	8.9	0.005
B. WEAKNESS																
1	High diesel price	YES	10.1	0.05	YES	10.1	0.05	NO			NO			YES	18.3	0.05
2	Sales drop - negative market situation	YES	21.5	0.001	YES	11.0	0.05	YES	6.6	0.1	NO			NO		
3	Low production	YES	20.6	0.001	YES	8.8	0.05	YES	5.4	0.05	YES	22.8	0.01	YES	21.8	0.001
4	Small exhibition room	YES	39.3	0.001	YES	27.6	0.001	NO			NO			YES	19.1	0.05
5	Small distribution network	YES	21.8	0.001	YES	19.7	0.001	YES	9.0	0.05	YES	4.3	0.05	NO		
6	Low organization degree	YES	33.9	0.001	YES	29.6	0.001	NO			NO			YES	15.6	0.1
7	Small workshop space	YES	30.9	0.001	YES	16.4	0.001	YES	7.2	0.1	YES	32.9	0.001	YES	16.2	0.1
8	Wood shortage	YES	42.5	0.001	YES	34.7	0.001	YES	19.9	0.001	NO			YES	31.3	0.001
C. OPPORTUNITIES																
1	Brand name development	YES	50.0	0.001	YES	40.6	0.001	YES	9.7	0.05	YES	3.0	0.1	YES	23.4	0.005
2	Access to new markets	YES	50.0	0.001	YES	40.6	0.001	YES	9.7	0.05	YES	3.0	0.1	YES	23.4	0.005
3	New technology advance	NO			NO			NO			NO			NO		
4	Partnership with foreign firms	YES	21.6	0.001	YES	27.3	0.001	YES	9.7	0.05	NO			YES	17.5	0.05
D. THREATS																
1	Competitiveness	NO			NO			YES	7.5	0.1	NO			NO		
2	Market sector's repletion	NO			YES	8.3	0.05	NO			NO			NO		
3	Unemployment	YES	17.6	0.001	YES	22.2	0.001	NO			NO			NO		
4	Sales drop - negative market situation	YES	21.6	0.001	YES	27.3	0.001	NO			NO			NO		
5	Large production units	NO			YES	8.3	0.05	YES	15.3	0.005	NO			NO		

* * The following variables are not included in the Table because of the (100%) percentage: From STRENGTHS: service, experience and competitive prices), from WEAKNESSES: the lack of specialised personnel, from OPPORTUNITIES: the opening of borders and the programs subsidies and from THREATS: the opening of borders with the illicit competition and the big furniture multistores.

In order to find out how the specific characteristics of the candidate enterprises affect their tendency to cluster, we used regression analysis. The regression analysis was realised using the estimate of cluster importance as a dependent variable and the basic characteristics of produced furniture of the sampled enterprises (i.e. legal form, turnover, exports, their foundation year, their activity and occupied personnel) as independent variables. The variables that were finally included in the model were only the turnover and the foundation year and concretely:

$$\text{Cluster importance} = - 77.642 - 0.944 \text{ TR} + 0.042 \text{ YC}$$

with $R^2 = 0.62$, $F=38.113$ and $\text{Sig. } 0.000$.

{TR = Turnover (a rate 1 to 4 for the groups 50-100, 100-250, 250-500 & >500 thousands € respectively) and YC = Year of Constitution}

Table 4. Regression analysis between cluster importance (y) and Profile of respondent firms

Model Summary(a)

R	R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
			R Square Change	F Change	df1	df2	Sig. F Change	
,787(a)	,619	,690	,619	38,113	2	47	,000	1,178

a Predictors: (Constant), year of constitution, turnover

b Dependent Variable: cluster importance

Coefficients(b)

Model		Unstandardized Coefficients		Sig.
		B	Std. Error	
1	(Constant)	-77,642	30,931	,016
	turnover	-,944	,112	,000
	year of constitution	,042	,016	,010

a Dependent Variable: cluster importance

Conclusions

In the new era of intense competition furniture SMEs in the region of Attica in Greece are rather interested in value chain clustering.

Quality, the competitive price and reliability constitute the 3 more basic competitive advantages of the candidate enterprises.

The analysis of Pearson correlation coefficient proved that the higher the price of a furniture product the better the level of customer services, while the stronger the corporate image, the bigger is the guarantee. Furthermore, a higher quality of the furniture promises a higher price or a wider distribution.

The X^2 control confirmed that product quality is not significantly correlated nor with the legal form, neither the turnover, the year of foundation, exports, or the activity of cluster enterprises. The export oriented companies produce a wider variety of furniture, own bigger exhibitions, while they present a lower productivity. This data constitute particularly important tools for the decision-making of the enterprises of the specific

furniture sector, in order to improve their operations and maximize their profits from clustering.

The regression model is well fitted and can quite precisely forecast the ascertainment of the importance of clustering, depending on the size and the characteristics of each enterprise in relation to their profile, as well as the competitive advantages they know that they offer.

It is rather obvious that the current companies' structure and the intense competition create the essential suitable conditions for a prompt creation of a successful value chain cluster in the Attica Region in Greece. The conditions of enterprises' collaboration for the creation of the particular furniture cluster seem to exist. However stronger faith is still needed as well as less skepticism.

Among the expected results from clustering are the implementation of quality management processes, the extension in new markets, the reduction of production cost, as well as the disposal and administration of the clustered companies' products.

References

- ADB, 2001. 'Best Practice in Developing Industry Clusters and Business Networks'. Asian Development Bank SME Development TA, Policy Paper No. 8. Jakarta: Kantor Menteri Negara Urusan Koperasi dan UKM.
- Bergman, E.M., Hertog, P., Charles, D.R., Remoe, S., 2001. 'Innovative Clusters: Drivers of National Innovation Systems'. Organisation of Economic Cooperation and Development, Paris.
- Blanas, G., 2003. 'Total Quality Networking: TQM - HRM and IS Networks', Patakis Publications, Athens.
- Botham, R., Gibson, H., Martin R. and Moore, B. 2001 'Business Clusters in the U.K - A First Assessment', A Report for the Department of Trade and Industry, A Consortium led by Trends Business Research.
- Cooke, P., 1996. 'The new wave of Regional Innovation Networks: Analysis, Characteristics and Strategy', Small Business Economics, Vol. 8, pp. 159-171.
- DeBresson, C., Hu, X., 1997. 'Techniques to identify innovative clusters: A method and 8 instruments'. Paper presented at OECD Workshop on Cluster Analysis and Cluster Policies, Amsterdam, Netherlands, 9-10 October.
- Denscombe, M., 1998. 'The Good Research Guide for Small-Scale Social Research Projects', Open University Press, London.
- Dumais, G., Ellison, G., Glaeser, E., 1997. 'Geographic Concentration as a Dynamic Process', MIT and NBER.
- Elsner, W., 1998. 'An Industrial Policy Agenda 2000 and Beyond: Experience, Theory and Policy' Bremen Contributions to Institutional and Social-Economics (Eds.) Biesecker, A./ Elsner, W./ Grenzdörffer, K., No. 34.
- Enright, M., Roberts, B., 2001. 'Regional Clustering in Australia', Australian Journal Management Vol. 26.
- Fink, A. 1995. 'How to Design Surveys', Survey Kit, vol. 5. Sage.
- Folta, T.B., Cooper, A.C., Baik, Y., 2006. 'Geographic cluster size and firm performance', Journal of Business Venturing, Vol. 21, pp 217-242.
- Hill, E.W., J. Brennan, 2000. 'A Methodology for identifying the Drivers of Industrial Clusters: The Foundation of Regional Competitive Advantage', Economic Development Quarterly Vol. 14 pp 65-69.
- Hofe, R., Chen, K., 2006. 'Whither or not Industrial Cluster: Conclusions or Confusions?', The Industrial Geographer, Volume 4, issue 1, p. 2-28.
- Howitt, D., Cramer, D. 2003. 'Statistics with SPSS 11 for WINDOWS', Klidarithmos Publication, Athens, pp 291.
- Humphrey, J & Schmitz, H., 1996. 'The Triple C Approach to Local Industrial Policy, World Development', Vol. 24, No. 12, pp. 1859-1877

- Kalogirou, J., Makridakis, S., Papajiannakis, L., Paraskevopoulos, D. 1994. 'Texts of Reflection, the future of Greek Industry', Industry Operational Program 1994-1999, Ministry of Development.
- Kaufman, L., Rousseuw, P., 1990. 'Findings Groups in Data. An Introduction to Cluster Analysis', Wiley Series in Probability and Mathematical Statistics.
- Knor, A., Lemper, A., Sell, A., Wohlmuth, K., 2004. 'Small and Medium Scale Enterprises Cluster Development in South-Eastern Region of Nigeria', Institute for World Economics and International Management, Nr 86, Universität Bremen, pp 42.
- Makios, B., Jorge, A., Sanchez, P., Vogiatzis, N., 2007. 'Hellenic Technology Clusters Initiative', Regional Development - International Competitiveness, 9th annual Conference, ICT Forum, Athens.
- Malerba, F., 1993. 'The National System of Innovation: Italy', NATIONAL INNOVATION SYSTEMS Edited by Nelson Richard, Oxford University Press.
- Norusis, M. 1997. 'SPSS Professional Statistics 7.5', Chicago: SPSS Inc. 276 p.
- Ntalos, G., Papadopoulos, J., Tsialtas, T., 2004. 'New Products and/or Processes Development and/or methods of transformation in Timber sector (W.IN)', Proceedings of "Innovative Actions in W. Macedonia", scientific Congress of the Region of W. Macedonia, Kastoria 13/12/2004.
- OECD, 2000. 'Enhancing the Competitiveness of SMEs in the Global Economy: Strategies and Policies, Local Partnership, Clusters and SME Globalization', Conference for Ministers responsible for SMEs and Industry Ministers, Bologna, Italy, 14-15 June.
- OECD, 2000b. 'Enhancing the Competitiveness of SMEs in the Global Economy: Strategies and Policies, Economy and their Partnership with SMEs of OECD Countries', Conference for Ministers responsible for SMEs and Industry Ministers, Bologna, Italy, 14-15 June.
- OECD, 2001. 'Issues paper', World Congress on Local Clusters: Networks of Enterprises in the World Economy organized by LEED programme of the OECD.
- Pacitto, J.C., Julien, P.A., Bizeul, P., 2006. 'Marketing in medium-sized manufacturing firms: The state-of-the-art in France and in Quebec', Journal of Int. Enterprises Management, Vol 3, pp. 29-50
- Papachroni, M., Mavri, M., 2006. 'Determination of regional industrial clusters in Greek economy', *SPOUDAI*, Vol. 56(2), University of Piraeus, pp 89-132
- Papadopoulos I., 2005. 'Historical Study on the structure and development of Furniture Sector', *Geotechnical Scientific Issues*, 18
- Paschaloudis, D., Zafeiropoulos K., 2002. 'A Marketing Research', Gkiourdas Eds, Athens, pp. 88.
- Porter, A., M., 1990. 'The Competitive Advantage of Nations', The Macmillan press Ltd.
- Porter, M., 1998. 'Clusters and the new Economics of Competition', Harvard Business Review, Nov.-Dec. pp 77-90.
- Roberts, B., R.S.J. Stimson, 1998. 'Multi-sectoral qualitative analysis: A tool for assessing the competitiveness of regions and formulating strategies for economic development', *Annals of Regional Science* 32: 469-494.
- Roelandt, T., Hertog, P., 1998. 'Clusters Analysis & Cluster-Based Policy in OECD-Countries. Note prepared for the OECD-Secretariat and the OECD TIP-group', presented at the 2nd OECD-workshop on cluster analysis and cluster-based policy, Vienna, May 4th & 5th.
- Rosenfeld, S. A., 1994. 'Danish modern. Designing networks in North America', *CMA Magazine*, April, pp. 24-26.
- Rosenfeld, Stuart A., 1996. 'Overachievers - Business Clusters that Work: Prospects for Regional Development', Paper presented at the Graylyn Center, Winston-Salem, North Carolina.
- Scorsone, E.A., 2002. 'Industrial clusters: Enhancing rural economies through business linkages', Southern Rural Development Centre, Mississippi State, pp 1-7.
- Tambunan, T., 2000. 'Development of Small-Scale Industries During the New Order Government in Indonesia', Aldershot, UK: Ashgate Publishing.

- Tambunan, T., 2005. 'Promoting Small and Medium Enterprises with a Clustering Approach: A Policy Experience from Indonesia', *Journal of Small Business Management* 43(2), pp. 138-154.
- Wasserman, S., Faust, K., 1994. 'Social Network Analysis', Cambridge University Press.
- Welch, Denice E., Welch, Lawrence S., Young, Louise C. & Wilkinson Ian F., 1998. 'The Importance of Networks in Export Promotion: Policy Issues', *Journal of International Marketing*, Vol. 6, No. 4, pp. 66-82