Value–Chain clustering as an Alternative strategy for Small-Scale and Micro Firms

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Abstract

Small-scale and micro industries (SSMIs) have received considerable attention in development strategies and policies. On the other hand, the past decade, industrial clusters have emerged as critical forces in economic development strategic planning. The debate of clustering as alternative strategy for SSMI development has dominated many discussions in economic literature. The main objective of the present paper is to explore the motives of SSMIs producing Upholstered Furniture that lead to the creation of a value chain cluster. It examines goals, objectives and investments in relevance with the existing problems and the business leaders' mentality, in order to determine the needs and mix of attitudes necessary to create a promising value chain cluster that enchances productivity and overall performance.

Empirical data was acquired through a recent study of 50 Greek micro and small firms, involved in the Upholstered Furniture industry and localised in the area of Attiki. Regression analyses examine the correlation between these firms' problems, expected goals and investment objectives and the commitment to the creation of a value chain cluster. The survey findings provide empirical evidence of current status in Greek Furniture firms. The lack of specialized personell, economic instability and bureaucracy are the most important problems that strenghten the decision of clustering. Becoming more competitive through promotion actions and New Products Development appear to be the most powerful expected goals, while the investment priority decisions tend to be Quality and Productivity improvements and Marketing development. The study creates new options and leads to guidelines able to justify the creation of successful clusters in regional or national policies.

Keywords: Value Chain Cluster, Upholstered Furniture Industry, Small and Micro Firms

Introduction

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, be flexible and differetiate, in order to survive and prosper. Most greek individual SMEs are still unable to capture these new challenges. Although there are more market

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opportunities, they cannot compete in terms of product quantity and quality, prices and new product development, concistency and after sales support. Specially the furniture industry, a rather mature and fragmented sector is unable to achieve economies of scale, market intelligence, logistics, or technology innovation. Furthermore, the firms are reluctant, when alone, to get involved in functions such as training, quality certification or the adoption of innovative technics such as benchmarking and innomediation.

The above constraints as well as the need of new ways to succeed in an ever more competitive market environment are today managed through clustering.In recent years, clusters have increased in popularity, seen as a panacea to a variety of economic ills (Peters, 2005). This perception is based on the assumption that regional specialization of interdependent firms and their cooperation with other public and private institutions will create synergies, increase productivity, and lead to economic advantages for the region (Peters, 2005; Harrison *et al*., 1996). Enterprises may take advantage of external economies: presence of suppliers; workers with sector specific skills and workshops that make or service the machinery and production tools (Tambunan, 2005). The list of key factors that explains the emergence of clusters is rather long: economies of scale and of scope, transport costs (inputs and outputs), transaction and sourcing costs, availability of production factors and/ or components in a specific location, knowledge, information and technological spillovers, innovation development, cooperation between companies or between suppliers and buyers and uncertainty reduction (Baptista and Swann 1998; Krugman 1991; Muizer and Hospers 2000;Porter 1990).There are plenty of success stories of SME clusters in West Europe such as Goodman and Bamford (1989); Schmitz and Musyck (1994); Sengenberger *et al*.,(1990), as well as many empirical studies such as Klapwijk (1997); Weijland (1999); Sandee (1996); Tambunan (2000, 1998a,b),

Literally, the term cluster has many connotations(Uzor, 2004; Feser and Bergman 2000; Cooper and Folta 2000). Schmitz (1992) defined cluster as a group of enterprises belonging to the same sector and operating in close proximity to each other. Steiner and Hartmann (1998) claim that "Clusters are sets of complementary firms (production-service sectors) public, private and semi-public research and development institutions, which are interconnected by labour market and /or input-output and/or technological links". The most widely accepted definition in recent times is that of Porter (1998): "a cluster is a geographically proximate group of interconnected firms and associated institutions in related industries". This definition encompasses the three basic dimensions of any cluster: geographical proximity, networks between companies and networks with organisms and institutions (Rocha 2004). Many authors have subsequently used Porter's definition in their papers (Carlsson 2002; Khan and Ghani 2004; Rocha 2002; Rocha and Sternberg 2005).

A number of different typologies or taxonomies have been developed to classify cluster-based forms of development(Scorsone, 2000). The most common form is the so-called value-chain cluster (Feser and Koo, 2001). According to Bergman and Feser(1999), a value chain cluster is an industry cluster identified as an extended input-output or buyer-supplier chain. It includes final market producers, and first,second, and third tier suppliers that directly or indirectly engage in trade. Ann Markusen (1996) described three cluster models, related to value chain concept: marshallian districts, hub and spoke, and satellites. A marshallian district consists of groups of SMEs cooperating to achieve

economies of scale regarding supply relationships, infrastructure and other supportive institutions. The hub and spoke system is based on groups of larger companies competing in the same market surrounded by smaller supply companies. Finally, satellite clusters are simple groupings of large, branch plant type firms.

In recent years numerous studies have appeared analysing the role of clusters in economic activity, both in developed countries, specially in high technology sectors such as biotechnology and electronics, and in developing countries, where clusters are proposed as tools to increase companies' and countries' competitiveness and as a bridge to achieve an international positioning (Romero-Martínez & Montoro-Sánchez 2008, Carlsson 2002). The majority of works have endeavoured to relate the theory of comparative advantage with firm location (Audretsch 1998; Fujita *et al.* 1999), or the conditions that favour the appearance of clusters in certain regions and countries (Khan and Ghani 2004). A review of the literature reveals two main lines of study: the analysis of the cluster formation process and its dynamism; and the effect of clusters on business competitiveness. In this sense, the goal of much of the literature is to explain the creation of industrial clusters (Krugman 1991; Prevenzer 1997) and empirically identify the positive externalities (Ausdretsch and Feldman 1996). Even more recent studies attempt to study the dynamic process of industrial agglomeration, for the purpose of analysing the key factors that generate the emergence of new clusters (Dumais *et al.* 2002;Baptista and Swann 1998; Krugman 1991; Muizer and Hospers 2000; Porter 1990).

Nevertheless,the empirical analyses tend to be imprecise and the findings inconclusive (Romero-Martínez & Montoro-Sánchez 2008). Empirical studies search always the "after" conditions, measuring results and never the "before" situation, where there is hesitation and uncertainty, rather than existing results and benefits. Although cluster research is an area that has undergone renewed interest, there is still a great potential, since clusters and all related issues, especially in the context of entrepreneurship and the identification of cluster key factors, characteristics and effects are as yet insufficiently analysed; studies in this field are very ambiguous. There are still many questions on the benefits and goals that a cluster is expected to offer and are fostered as the main motives for a clustering decision. There is no connection yet, with the type of companies which show greater interest in forming a cluster. All companies are not ideal candidates for a cluster, or otherwise all companies are not ready to accept clustering; but no studies have dealt with it till now.

Furhtermore, taking advantage of opportunities which result in cluster creation depends heavily on the entrepreneur: entrepreneurial action is conceived of as a human attribute, including elements which differentiate the entrepreneur with a cluster mentality from the rest, such as the will to face up uncertainty (Khilstrom and Laffont 1979), and share risk with others, or the need to trust and cooperate. In this way specific personality traits—cooperativeness, the willingness to share,the acceptance of cluster values and synergies— allow certain attitudes to be identified. On the other hand, it is claimed that when major problems arise, managers with certain goals and needs turn to clusters specially when they find it difficult to survive in the face of radical change (Rocha 2002).The present study considers both attitudes, in order to evince features and particularities.

Government policy can play an important role in the development of clusters (Khan and Ghani 2004). Expanding Krugman (1991) we could suggest that all policy makers - from regional commitees to local chambers of commerce and city councils- can take the reported factors and goals into account in order to attract foot-loose firms to become self-sustaining, once a critical mass has been attracted (Tambunan, 2005).Cluster policies are prone to failure because they are often poorly conceptualized and developed, especially when they are defined using political rather than economic justifications (Peters, 2005;Austrian, 2000; Waits, 2000).

Methodology

The purpose of the present study is to identify the way that problems, goals and investment decisions are related to success and failure in creating a value chain cluster in a specific mature industry or otherwise to point out the motives and obstacles that affect the clustering decision from an SSMI point of view, before clustering. It is realized through measuring the impacts of the above parameters on enhancing cluster commitment.

Integrating the findings of relevant literature, activities, problems, or characteristics and a rather long list of key factors found to be associated with cluster success and failure, are used to develop the questionnaire. The elements are then grouped into problems, expected benefits and investment decisions. The questionnaire includes further explanatory questions. The indicator we used is the cluster importance and commitment.

Both quantitative and qualitative data were collected through a combination of e-mailing and personal interviews to SSMIs: 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, and regression analysis. All computations were done using the SPSS package (Norusis,1997). The qualitative responses are used to provide context for the statistical results obtained.

The survey concentrated 50 questionnaires, which is considered a representative sample of small / micro furniture firms in Greece and specially in the area of Attiki(Papadopoulos, 2005). All firms belong

to the Furniture Production value chain. They are grouped according to their turnovers, the type of production (custom or mixed), export – oriention and the entrepreneur's mentality (progressive or conservative) according to their openess to cooperations, consulting, scientific company organization and personal view for clustering.

Major Findings

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

Profile of respondent firms

The Greek Furniture Industry is predominantly characterized by a population of micro, small and medium, privately- owned firms. The sector is mature and fragmented, with many firms operating in a 'craft' production mode and very labour intensive. Products can be classified according to primary material (i.e.wood, upholstered), use (case goods, occasional furniture), as well as style, finish, quality, and price. The production is highly diversified. No cases of foreign ownership were come upon (Papadopoulos et al., 2005). The multiplicity of different production activities involved in the Sector, favor the creation of a value chain cluster.

The firms involved in the survey are Greek, placed in Attiki, near Athens. Out of a sample of fifty firms in the survey, only eight (16% per cent) firms export, mostly in East European countries and Cyprus and have turnovers that exceed 250.000 €, while most of them (41) have both standardized and custom production (mixed production) and the rest (9)only custom production.

All 50 entrepreneurs consinder themselves progressive, but the elaboration of the critical questions proved that only a 30% of them really is. The majority are still rather conservative, although Attiki is one of the most advanced industrial areas in Greece.

Problems and cluster importance

It is shown in Table 1, that firms have certainly a different point of view, when consintering clustering as a solution to their problems. Enterprises with a Progressive culture have significantly higher scores (the difference of their mean scores is significant at the 0.05 level)in problems refering to lack of knowledge, information and managers, as well as economic instability and legislation about employment than Conservative firms (table 1). The very same (adding new product development) goes for the turnover category, with a relevant scale from lower to higher turnover. The only exception is the institutional framework for businesses, where the difference is significant the other way round and which is rather normal. It is also important to see that firms that have mixed production show a higher commitment to clustering, and vice versa. The differences in all scores between the two groups are statistically significant (at $P < 0.05$), except for bureucracy and institutional framework for businesses, which seem more important for custom production (Table 1). Export oriented companies seem to differ significantly in problems regarding the economic instability, bureaucracy, lack of information organizations and new products. This result is considered rather normal, since they have to cope with external markets where a cluster can offer more confindence and awareness. The biggest difference is

found in the weakness they face regarding new product development, in order to be competitive in a larger market scale.

Regression analysis is used to explore the effects of the individual problems on firms' commitment to clustering, and the standard regression coefficients of variables are given in Table 2. It shows that lack of knowledge determines the commitment to a clustering decision of very small firms with a turnover less than 100.000 euros(i.e. standard regression coefficient = 4.964 at significant level *P* < 0.05), followed by lack of markets and managers. Economic instability appears to be the only problem for small firms with a turnover till 250.000 euros (i.e. standard regression coefficient = 0.679 at significant level *P* < 0.05). This is in accordance with literature that underlines the inability of small and alone companies to have access to any type of information (Scorsone 2002, Tampunan 2005) and new markets (Uzor, 2004). Firms with a higher turnover show no interest connecting problems to their entrance in a cluster.

Economic instability is also the strongest unique reason to cluster for all companies, progressive or not (standard regression coefficients = 1.449 and 1.239,with sig=0.00, at significant level *P* < 0.05), in order to achieve better performance and become more competitive. In one sense, the results are consistent with the literature. According to Peters (2005) clusters are mainly seen as a panacea to many economic ills, or flourish in economically weak nations (Barkley and Mark, 1997)and clusters are made for uncertainty reduction (Baptista and Swann 1998; Krugman 1991; Muizer and Hospers 2000;Porter 1990). For Conservative firms cheaper materials and - less -bureaucracy (standard regression coefficients = 1.260 and 0.486 at significant level *P* < 0.05) pay also a unique contribution to explaining their tendency to cluster forming. Literature strongly supports the achievement of economies of scale and specially raw materials (Tampunan,2005; Uzor, 2004; Muizer & Hospers, 2000;Eisingerich *et al*., 2005). The fact that this problem is set only by conservative firms calls for more search.

Table 1: Results on cluster importance, regarding problems (without turnover)

Results on cluster importance											
PROBLEMS	MENTALITY				EXPORTS				PRODUCTION TYPE			
	PROGRESSIVE		CONSERVATIV		YES		NO		BY ORDER		MIXED	
	N=15		N=35		N=8		N=42		N=9		N=41	
	M.	SD	M	SD	M.	SD	M.	SD	M	SD	M	SD
cheaper materials	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
lack of knowledge	0.93	,258	0.74	,448	1,00	,000	,76	,435	,22	,441	,93	,267
economic instability	0,93	,258	0,66	,482	1,00	,000	,69	,468	,00	,000	,90	,300
employee finding difficulty	2,00	,378	1,97	,169	2,00	,000	1,98	,269	1,78	,441	2,02	,156
new product	1,00	,000	1,00	,594	1,50	,926	,90	,297	,56	,527	1,10	,436
bureaucracy	,07	,258	,17	,382	,38	,518	,10	,297	,33	,500	,10	,300
Institut. framework for business	,13	,352	,09	,284	,00	,000	,12	,328	,44	,527	,02	,156
Employm. legislation	1,00	,000	,60	,497	,63	,518	,74	,445	,22	,441	,83	,381
lack of managers	,93	,258	,71	,458	1,00	,000	,74	,445	,11	,333	,93	,264
lack of markets	,00	,000	,03	,169	,00	,000	,02	,154	,11	,333	,00	,000
lack of information	,93	,258	,66	,482	1,00	,000	,69	,468	,00	,000	,90	,300

organizations

*P<0.05

Table 2: Regression Analysis of problems and cluster importance

Regression Variables	MENTALITY		EXPORTS		PRODUCTION TYPE		TURNOVER		
PROBLEMS	PROGR	CONSERVE	YES	NO	BY ORDER	MIXED	5-10*	10-25	25+
	N=15	N=35	N=8	N=42	N=9	N=41	N=10	N=14	N=26
cheaper materials		1,260							
lack of knowledge		-,356					4,964		
economic instability	1,239	1,449						-,679	
employee find. diff.	-,424				,240		,403		
new product		-,210	,632			-,251	-,434		
bureaucracy		-,486		,678	,408	-,633	,786		
Instit. framework for business									
Employm. legislation					1.080		1.100		
lack of managers						-,419	3,627		
lack of markets				-,503	-,272		3,885		
lack of information organizations		-,563							
R	0.939	0.950	1.000	0.743	0.972	0.805	1.000	0.679	1.000
R2	0.881	0.920	1.000	0.553	0.944	0.649	1.000	0.462	1.000
Adjusted r2	0.875	0.836	1.000	0.423	0.778	0.585	1.000	0.364	1.000
Std. Error	0.289	0.460	0.000	0.696	0.577	0.675	0.000	0.213	0.000

*P<0.05,   * in 10.000 euros

New Product Development (NPD) appears to be the unique variable to affect the will of export oriented companies(standard regression coefficient = 0.632 at significant level *P* < 0.05). Although this group was expected to reflect more needs and present a strongest commitment to clustering, the finding is not surprising, since these companies feel more alone and vulnerable in the new everchanging business landscape, where new products and the speed of changing them is crucial for a firm's survival. On the other hand, bureaucracy – which appears to be a very important constraint for all types of companies-, and lack of markets contribute significantly to the wish of non export firms to enter a cluster. This is also normal, since the domestic market, although somehow protected, is not big enough for the enormous number of the 350 producers and 3700 importers who share it (www.eommex.gr).

With the ever existing problem of bureaucracy to be the most contributing variable, NPD and lack of managers (standard regression coefficients = 0.633, 0.251 and 0.419 respectively at significant level *P* < 0.05) appear to be the key factors for companies with mixed production. This can be explained, seen in accordance with the rest characteristics of them: they are the larger companies, that export. Employ finding difficulty in accordance with legislation about employment and lack of markets (besides bereaucracy) are significant for the custom made firms (standard regression coefficients = 0.240, 1.080,0.272 and 0.408 at significant level *P* < 0.05, Table 2). In this case, the result indicates the difficulty of obtaining specialized personell, since these companies need mainly skilled personell, which are rather scarce, as well as the little share of the domestic market they own. Both are rather important problems, which could be solved in a value chain cluster.

Lack of knowledge, specially on NPD and market-enter processes, economic instability,bureaucracy and the specialized personell shortage are drawn to be the most important problems that could lead greek furniture producers to a value chain cluster, in order to build and sustain their competitive advantage in the new globalized economy.

Investment decisions and cluster importance

Survey results indicate that firms with stronger investment decisions have higher commitment to a cluster creation, and vice versa,(Table 3). The differences in almost all scores between the relevant groups are statistically significant, at significant level *P* < 0.05. Progressive, export-oriented firms with mixed production have significantly higher scores than the conservative, custom makers who serve the domestic market. The only exception regards the investments on quality control systems and new equipment, as well as space reformation, which are strong and a must for all company types. This is normal, when we consider the rather old equipment as well as the growing importance of quality management for greek companies(Blanas, 2002). Transport media supply appears to be a need equally expressed by all categories. This is also normal if we consider the volume of furniture products and the policy to be transfered and placed by the company. It is also important that firms with mixed production show a higher commitment to clustering, and vice versa.

The above findings are supported by the relevant literature and go further by categorizing the priorities of certain company groups. Visser (1999)claimed that "cooperation may take place in networks of entrepreneurs actively pursuing concrete business goals of enhancing production volumes and turnover, improving product quality and design". The literature claims that first are the efficiency gains, in other words external economies that firms can reap simply by clustering (Marshall, 1890; Nadvi, 1996; McCormick, 1998)and empirical results have shown that joint action plays an important role in SME upgrading (Kaplinsky, 2000; Kaplinsky and Readman, 2001); product quality standard to meet export condition (Nadvi,1996); transaction costs reduction (Bräutigam, 1997) etc.

Regression analysis stresses the fact that for progressive and export oriented firms the possibility of presenting themselves abroad (through exhibitions) and the benefit of establishing quality control systems respectively, seem to be those that develop a cluster tendency (i.e. standard regression coefficient = .949 and 1.000 relatively, at significant level *P* < 0.05). The results (see Table 4)show that participation in exhibitions significantly and uniquely affects the cluster commitment of the very small firms, with a turnover till 250.000 euros; (i.e. standard regression coefficient = 0.579 for first group and 1.359 for the second at significant level P < 0.05). In order to achieve competitive advantage, the above firms prove that finding an affordable way to make themselves known is a decisive factor for clustering. Once again, the firms with a higher turnover show no interest regarding connecting investment decisions to clustering.

Table 3: Results on cluster importance, regarding investment decisions (without turnover category)

Regression Variables INVESTMENT DECISIONS	MENTALITY				EXPORTS				PRODUCTION TYPE			
	PROGRESSIVE N=15		CONSERVATIV N=35		YES N=8		NO N=42		BY ORDER N=9		MIXED N=41	
	M.	SD	M	SD	M.	SD	M.	SD	M	SD	M	SD
Participation in exhibitions	4,07	,258	3,69	,471	4,00	,000	3,76	,484	3,22	,667	3,93	,264
promotion of name through advertising	4,87	,516	4,54	,741	5,00	,000	4,57	,737	3,44	,527	4,90	,374
quality control systems – ISO	4,00	,000	3,97	,514	4,38	,518	3,90	,370	4,00	,000	3,97	,514
IT tools	4,87	,516	4,37	,973	5,00	,000	4,43	,941	3,00	,500	4,85	,527
New Equipment supply	3,93	,258	3,97	,954	5,00	,000	3,76	,726	2,89	,928	4,20	,558
Transport media supply	4,13	,352	4,31	,583	4,00	,000	4,31	,563	3,89	,333	4,34	,530
Layout study	4,00	,000	4,11	,404	4,38	,518	4,02	,269	3,89	,333	4,12	,331

Results on cluster importance

*P<0.05

It is not surprising that quite the opposite draws for companies that do not export and the conservative ones: almost all variables have a unique and significant contribution to cluster importance (Table 4). Being more reluctant to changes, these companies seek more, in order to change their mentality, overcome their tentativeness and reluctance to changes and enter a cluster. Promotion through advertising (standard regression coefficient = 1.295 at significant level $P < 0.05$) and new equipment supply (standard regression coefficient = 0.584 at significant level $P < 0.05$) having the strogest significance prove the desire of the non export category to expand to new markets as well as their weakness to achieve it in their current condition. Participation in exhibitions (standard regression coefficient = 6.152 at significant level $P < 0.05$, sig=0.001), promotion through advertising (standard regression coefficient = 0.584 at significant level $P < 0.05$, with a sig=0.000) and ISO certification support the above assumption in a more conservative way, revealing a rather narrow way of thinking,as well as a suspiciusness regarding the ability of a cluster to offer what they desire. Still, according to literature this type of external economy is particularly significant for small firms, which can rarely afford market studies, participation in foreign exhibitions and promotion (Rabellotti, 1996).

Curiously enough, promotion through advertising is one of the two variables that have no significance at all for companies with mixed production (the second one being the information tools). All other variables affect uniquely and significantly the commitment to a cluster with new equipment supply to be the strongest one. On the other hand, companies producing only by order show a very weak interest in investing, underlining the introversion and limited entrepreneurial activities of the specific firms.

The better access to markets (exhibitions and promotion), the acquisition of new equipment and a quality certification system prove to be strong investment decisions that are easier realized when firms are in a cluster. Conservative companies that serve the domestic

market mainly with custom made furniture tend to seek more proof and reap more benefits in order to be persuaded to create a cluster.

Table 4: Regression Analysis of investment decisions and cluster importance

Results on cluster importance								
INVESTMENT DECISIONS	**MENTALITY**		**EXPORTS**		**PRODUCTION TYPE**		**TURNOVER**	
	PROGR	**CONSERVE**	**YES**	**NO**	**BY ORDER**	**MIXED**	**5-10***	**10-25**	**25+**
	N=15	N=35	N=8	N=42	N=9	N=41	N=10	N=14	N=26
Participation in exhibitions	-,949	6,152		-,418		,252	-,579	1,359	
promotion of name through advertising		,840		1,295					
Quality Systems		-,908	1,000	-,340		,185			
IT tools		3,763		,321					
New Equipment supply		1,001		,584		1,065			
Transp media supply	-,431	1,132		,497		-,506			
Layout study		,373		-,198		-,474			
R	1,000	0.962	1,000	0.881	0.913	1.000	0.893	1.000	1.000
R2	1,000	0.925	1,000	0.776	0.833	1.000	0.798	1.000	1.000
Adjusted r2	1,000	0.906	1,000	0.730	0.333	1.000	0.393	1.000	1.000
Std. Error	0.000	0.328	0.000	0.436	1.000	0.000	0.957	0.000	0.000
*P<0.05 * in 10.000 euros								

Benefits and cluster importance

The test of clusters, however, is whether they make a difference to performance and that means whether firms in clusters benefit from being in relative concentration, compared with non-clustered firms (Romero-Martínez & Montoro-Sánchez, 2008). It is shown in Table 5, that firms regard certainly different benefits from clustering: enterprises with a Progressive culture have significantly higher scores (at the 0.05 level)in all benefits, except those refering to entrance to new markets, economies of co-operation and technology exchange. These benefits are expected by both categories as rather normal (see also Yamawaki, 2002;Feser, 2001; Scorsone, 2002; Kosheleva, 2005). Moreover, Conservative firms need more encouragement in order to become more competitive.

The means of Economy of knowledge and marketing experience show the outstanding importance of the two variables for progressive companies with mixed production that export (means=5.00, 5.00, 4.80 and 5.00, 5.00, 4.88 respectively). It is worth mentioning that there is a statistically significant difference in the above means and the ones of the two variables of the non export companies and those with a low turn over. In one sense, the differences are shocking but quite expectable. The weakest category seems to be the companies with a turnover till 100.000 euros, which does not consider the benefits derived by a cluster (most means around 3.00)as feasible by them. Many questions could be posed here, mainly seen by a policy view.

All benefits used in this study were taken from literature as key factors for successful clusters. However, the standard regression coefficients prove that there are no significant values for companies with a turnover till 250.000 euros, while firms of a higher turnover consider the formation of sales networks as the one and strongest

benefit of a cluster (see Table 6). There is no benefit that could significantly influence the decision of clustering for custom furniture producers, while sales networks and entrance to new markets appear to be the only determinants for firms with mixed production(standard regression coefficient= -0.964 and 1.288 at significant level *P* < 0.05). Having practically no possibility for expanding, both because of size of firms and nature of industry, these firms rely heavily on external help (i.e. goverment policies)and regard the two above benefits as strong motives to overcome their mentality "bobs"and create a cluster.

Table 5: Results on cluster importance, regarding benefits (without turnover category)

Results on cluster importance												
BENEFITS	MENTALITY				EXPORTS				PRODUCTION TYPE			
	PROGRESSIVE		CONSERVATIVE		YES		NO		BY ORDER		MIXED	
	N=15		N=35		N=8		N=42		N=9		N=41	
	M.	SD	M	SD	M.	SD	M.	SD	M	SD	M	SD
Entran. new markets	3,00	,000	3,00	,542	3,38	,518	2,93	,407	2,78	,441	3,05	,444
Format.sales network	4,67	,577	4,00	1,02	4,00	,000	4,07	1,14	3,11	,782	4,34	,897
enforcment of sales network	3,80	,561	3,40	,881	3,63	,518	3,50	,862	2,33	,707	3,78	,571
improvement of marketing proceedure	4,93	,258	4,31	1,07	5,00	,000	4,40	1,01	3,11	,601	4,80	,715
economy of knowledge	5,00	,000	4,60	,604	5,00	,000	4,67	,570	4,00	,500	4,88	,400
economy of cooperat.	3,00	,000	3,00	,485	3,00	,000	3,00	,442	3,00	,866	3,00	,224
economy of scale	3,93	,258	3,60	,497	3,63	,518	3,71	,457	3,11	,333	3,83	,381
Competitiven.improv.	3,00	,000	3,34	,539	3,38	,518	3,21	,470	3,56	,726	3,17	,381
improvement of production process	3,20	,414	3,91	,445	4,00	,000	3,64	,577	3,56	,726	3,73	,501
Productiv. increase	4,00	,000	3,97	,169	4,00	,000	3,98	,154	3,89	,333	4,00	,000
NPD	3,40	,737	4,26	,657	4,00	,000	4,00	,855	4,00	,000	4,00	,866
Innov. encouragement	3,07	,458	3,43	,608	3,38	,518	3,31	,604	2,78	,441	3,44	,550
technology exchange	4,00	,000	4,00	,594	4,13	,991	3,98	,348	4,00	,000	4,00	,548
skill and induction of new products	3,93	,258	3,57	,698	3,75	,707	3,67	,612	2,78	,441	3,88	,458
state financing	4,00	,000	3,94	,236	4,00	,000	3,95	,216	3,78	,441	4,00	,000
state grants	4,60	,828	3,20	,531	3,50	,535	3,64	,958	3,00	,000	3,76	,943
tax exemption	4,00	,000	3,97	,169	4,00	,000	3,98	,154	4,00	,000	3,98	,156
*P<0.05												

Sales networks seem to play an influential role also for progressive companies (standard regression coefficient= 0.343 at significant level *P* < 0.05). However, these ones reveal a broader view, since they expect benefits related to new product development and the cultivation of relevant skills (standard regression coefficients= 0.451 and 1.107 at significant level *P* < 0.05). Although much of the literature deals with clusters and innovation (see also Audretsch, 1998; Baptista & Swann, 1998; Cooper & Folta, 2000; Khan & Ghani, 2004), greek furniture companies consinder it as of medium importance (means between 2.78 and 3.44) but not a turning point. That is quite normal, since the industry itself is not considered to be an innovative one (mature and highly fragmented).

On the other hand, special attention is given to the benefits that influence the decision for clustering for conservative firms, which really surprise (see Table 6):besides entrance to new markets, development of new products proves to be the most influential one (standard regression coefficient= 0.828 at significant level *P* < 0.05), followed by economy of knowledge and competitiveness improvement. The results straingthen the assumption that conservative firms are so formed under the stress of their recognized weaknesses and inexisting strategies and shows that the dividing line between the two mentality categories is mainly the role of the entrepreneur in actively pursuing cooperation with other firms with the purpose of learning (technical, managerial and entrepreneurial) and innovation (with regard to products, processes and organization). This may be the most important problem in cluster creation not only in furniture industry, but other mature industries, in certain nations (e.g. Cyprus) too.

Table 6: Regression Analysis of benefits and cluster importance

Results on cluster importance									
BENEFITS	MENTALITY		EXPORTS		PRODUCTION TYPE		TURNOVER		
	PROGR	CONSERVE	YES	NO	BY ORDER	MIXED	5-10*	10-25	25+
	N=15	N=35	N=8	N=42	N=9	N=41	N=10	N=14	N=26
Entr. to new markets		,583				1,268			
Form. sales networks									1,00
enforcment of sales network	-,343		1,00	,524		-,964			
improvement of marketing proceedure				1,758	1,109				
economy of knowledge		-,818			-,590		-,639		
Econo.of cooperation						,970			
economy of scale									
competitiveness improvement		,399							
improvement of production process				-1,285					
Productiv. increase									
NPD	-,451	,826				,781			
Innov. encouragement				,633			,457		
technology exchange									
skill and induction of new products	1,107				-,600		-,800		0
state financing				,865					
state grants				,540					0
tax exemption								1,000	
R	1.000	0.974	1.000	0.907	0.972	1.000	0.924	1.000	1.000
R2	1.000	0.954	1.000	0.942	0.944	1.000	0.853	1.000	1.000
Adjusted r2	1.000	0.926	1.000	0.895	0.778	1.000	0.559	1.000	1.000
Std. Error	0.000	0.309	0.000	0.297	0.577	0.000	0.816	0.000	0.000

*P<0.05   * in 10.000 euros

Improvements of marketing and production processes (standard regression coefficients= 1.758 and 1.285 at significant level *P* < 0.05) have a significant unique contribution to cluster creation for non export companies. This category appears to be the only one that relates economic benefits (state financing and grants) to clustering, revealing once again that the entrepreneurs belonging to it expect

direct and rapid benefits in order to change strategies and place their own development in a value chain cluster.

It is statistically evident that there exists a relationship between benefits (as selected by existing literature) and cluster importance. It is worth mentioning that each category has a different point of view, inspite the joint targets that appear. Thereupon, it proves to be of crucial importance for firms to enter new markets and export-oriented skills (e.g. marketing improvement and new product development) especially in the era of global competition. In order to create a new cluster strategy and vision, policies could take into account the above differencies and similarities and form fitting plans, unterlining the mentioned characteristics and particularities of the specific industry.

Conclusions

Over the past fifteen years, regional, industrial cluster development has gained popularity as a vital economic development strategy to boost competitiveness in a globalizing economy. Moreover, many policy makers and academicians see industrial cluster analysis as the ultimate policy panacea. On the other hand, while many postulate that networking is necessary to success, research has shown cases where owners of small firms do not actively engage in networking activities. Reasons for lack of networking include lack of growth aspirations as well as a reluctance to network, arising from the entrepreneur's need for independence (vom Hofe & Chen 2006).In this study, we examined how SMEs of the mature Furniture Industry in Attiki (Greece) are combating this challenge, in order to survive and become more competitive. We proved the existence of a correlation between problems, investment decisions and benefits and the commitment to cluster creation. As this is a single industry sector study, generalizations are limited. Some conclusions can be drawn for managers of SMEs and entrepreneurs, particularly in this industry, as well as policy makers in a more general aspect.

The present study proved that there is not a sigle line on expectations (no matter if we refer to problems or benefits) for all kinds of enterprises. There are certain key factors that can be taken into account, in order to encourage different company types to overcome entrepreneurs' suspiciousness and the physical tendency for independence and cluster, specially when there is no path dependency, as in the case of *distretti industrialli* in Italy.

Mentality proved to be very important to clustering. Progressive firms tent to be more open to cooperations and networking and have broader views of the entrepreneurial landscape. This is in accordance with literature, where their active behavior is noted to have its roots in competitive forces, "compelling them to upgrade their ties with suppliers, clients, competitors, banks and research centers with the aim to reset the resource disadvantages characterizing most SMEs" (Visser, 1999). In our case, the benefits of cooperation take the form of cost reductions, quality and design improvements, and new product development.

Conservative firms seem to need more reassurance about problems and benefits, in order to consent to a cluster creation. The fact that they draw connections among problems and benefits creates expectations

that they may become supporters of a cluster once they are convinced that it can be of real help. Their low trust to clusters relies heavily on their unfamiliarity to it. The amazing rate of firms that had never heard of clustering again (90%) caused much delay, since almost all entrepreneurs wanted to hear more than once about this *new idea*. It is also worth mentioning that although this category was the only one to refer to the problem of expensive raw materials, economies of scale did not appear to affect their commitment to clustering at all. In fact the other categories did not seem even to mention resources'cost as a problem, or economies of scale as a benefit. That can be explained either because of the small volumes that the sample companies use, or because of a subconcious inability to reach the concept of such collective benefits.

Turnover did not play an important role in determinig key factors to clustering. Companies with very low turnover (as well as custom makers) appear to be unable to solve their problems alone, they do consider that they can be solved in a cluster, but curiously they show an indifference in any investment or benefit derived from a cluster. That can be explained mainly as an opposition to the idea of dense networks of relationships ('strong ties') (Romero-Martínez & Montoro-Sánchez, 2008), and a normal tendency to mistrust and doubts that they will be the ones to benefit, since they are very small companies that serve limited markets.

On the other hand companies with a high turnover do not appear willing to participate into a clustering adventure. They seem happy enough mentioning no problems or investment decisions that could make them form a cluster. The only benefit affecting significantly a tendency to a cluster could be sales networks, showing their wish to expand more. Are these companies so succesful or is their strategy two narrow-minded and with no aspirations?

While custom makers seem rather indifferent, companies that produce both customized and massive furniture appear more conscious regarding the relatiohship among problems, investments and benefits. Messy problems like bureaucracy, NPD weakness and lack of managers affect the clustering decision, which is expected to promote cooperations, accelerate the NPD process and create neworks for easier and more efficient entrance in new markets.

Non export companies showed a great interest in reaping a significant amount of benefits and investments from a cluster. Although they considered only bureaucracy as an important problem, they tent to fully support a cluster that could help them enter external markets. That underlines the fact that companies feel more alone and vulnerable in the international business landscape and entrepreneurs have accepted their present weaknesses (since they were not mentioned as problems) but see favorably the possibility of expanding. It is important to note that this category is the only one to strongly relate financial benefits to a cluster. Non export companies seek to form collective capabilities in order to export, while export companies place the importance of a cluster to skills and capabilities related to NPD, since they are competing in an international, entrepreneurial arena where new product development is crucial for a firm's survival.

In summary, greek furniture micro and small firms with low turnover that do not export and produce by order are significantly less

commited to clustering than the ones with mixed production and expot orientation. On the contrary, both progressive and conservative firms show an interest on a value chain cluster creation but seeing it from a different point of view. NPD and sales networks are the most significant profits that affect the clustering decision, while exhibitions and quality certification prove to be the strongest investment decisions. In consistency, dominating problems are the weak NPD processes, lack of markets, legislation about employment, economic instability and bureaucracy. A matter of discussion should be whether bureaucracy is such an important problem as it appears to be or just covers other, more critical weaknesses and inabilities of the companies in issue. Another subject in discuss is the contradiction among problems and benefits, mentioned above. Recognized problems underline the need of clustering but the lack of targeting benefits and investments shows the existing reluctance, mainly due to ignorance and a physical tendency to independence. We should not ommit the important and catholic need of transport media acquisition which entails further discussion about these firms'strategy and policies.

An important limitation is the fact that the sample was too small and a single case and that although selected by current literature, the final list of questions was selective and filtered after the initial pilot research. Thus, we have engaged the most popular choices – but not all of them. Despite these limitations, the findings and suggestions are useful, given the absence of guidelines for providing suited policies for cluster formation.

To conclude, it must be pointed out that government policy can play an important role in the development of clusters (Khan and Ghani 2004), when taking into consideration the profile of companies and entrepreneurs that are candidates for clustering. The changes produced by similar studies can be translated in the form of processes of organisational, individual and collective learning, in influences on conventions, norms and standards. On the other hand, incorrect regional policies, often designed in a more generalized concept, standard for all nations, often end up fragmenting scarce human and capital resources, thereby blocking or damaging cluster development.

Future Research Directions

This study aimed to explore the correlation between Greek furniture firms' problems, expected goals and investment objectives and the commitment to the creation of a value chain cluster. It was realized in the industrial area of Attiki (Greece) and now it is continued in order to cover the whole furniture sector in Greece.
Needless to say, it is rather hazardous to draw strong conclusions from a sigle case study. However, since the multivariety of firms' priorities, when considering the idea of a cluster, has not been widely investigated, it would be a challenge for researchers to examine similarities and dissimilarities in enterprises' characteristics and expectations across different industries in different countries, in order to form cluster policies suitable for each cluster and nation.

Having in mind the sample size, there are many findings that create questions and deserve further research, as the fact that economies of scale do not seem important, or that firm size makes no distiguish (while in literature there are many correlations between these two parameters for existing clusters). Hypotheses have to be verified

about the role of strategy and company's expectations on cluster creation and the mechanisms that lead entrepreneurs to overcome certain constraints and decide to cluster. Clusters create identity, a common understanding of an industry, and interacting networks of firms. However, small firms are not always ready to accept the changes clustering brings and this has encouraged attention to be given towards diversity in firms' behaviour and priorities.

The majority of works that study clusters have endeavoured to relate the theory of comparative advantage with firm location, studying the conditions that favour the appearance of clusters in certain regions and countries (Khan and Ghani 2004) and giving long lists of key factors that explain the emergence of existing clusters and the principal positive effects of them. Nevertheless, the empirical analyses tend to be imprecise and the findings inconclusive. More research is needed in this area. For this reason, current and future researchers should be encouraged to carry out empirical studies into this area with enormous research potential.

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