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Partnerships and development policies in Greece: a firms' appreciation using CFA analysis

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Partnerships and development policies in Greece: a firms' appreciation using CFA analysis

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Abstract

The present research investigates the importance of selected local development policies for SME enterprises in the city of Thessaloniki, Greece, one of the metropolis of south Europe. The field research has been implemented by administering questionnaires on a representative sample of 227 enterprises. These enterprises have been selected through a stratified random sampling where strata are related to the main economic sector. The added value of this research is essential since there are only few similar researches in South east Europe and in Greece. The present research brings on important issues and questions about local economic development because it presents directly the estimations and views of a large number of local enterprises that reflect the image of local economy. Finally, this research gives a satisfactory overview of the inner growth of Thessaloniki and further the results could lead to an evaluation, planning, implementation, rejection or reconstruction of specific actions and policies locally. Through Structural Equation Analysis (SEM) and Confirmatory Factor Analysis (CFA), the objective is not only to appreciate which of the initial variables (reflecting alternatives policies) affect intensively the Exploratory Factor Analysis (EFA) components but also to assess which policies are perceived by firms as the most determinant in terms of partnerships' development and improvement of competitiveness according to their sector of operation.

Key words: Local Development Policies, Partnerships, empirical research, firms' development, EFA, SEM, CFA, Thessaloniki, Greece

Jel codes: R50, R58, R59, L21

1. Introduction

As very important for the materialization of local development and competitiveness policies is regarded the role of local authorities, especially with regards to the planning of and the implementation of local initiatives, promotion strategies and the city image on international level as well (Peck and Tickell, 1994; Strange, 1997; Rydin, 1998; McCarthy, 1998; Wood and Taylor, 2004; Booth, 2005; Crossa, 2009). This reflects the drive for growth mixed with the attempt to increase social responsibility, decrease worklessness and increase local entrepreneurship (Newman, 2008). The main priority developing these strategies focuses on the viable development of the local societies with an emphasis on more than just the economic development, since the existence of local authorities with entrepreneurial orientation derives as a basic need, mainly the last twenty years (van den Berg and Braun, 1999; Turner and Martin, 2007; Metaxas, 2011). For many scholars these development strategies entail transforming the image and functions of cities from centres of production and work to attractive places for local and global investment (i.e. Cochrane and Jonas, 1999; Chang, 2000; Avraham, 2004; Metaxas, 2006, 2010). Barlow (1997) mentions, that the absence of entrepreneurial orientation is likely to sustain disadvantages for a city's development in comparison to other cities. Moreover, a number of recent studies award the significance of *organizing capacity* as an important factor on development process locally (Kresl and Singh, 1995, 1999; Polidano, 2000; van den Berg *et al.*, 1997, 2003). Van den Berg *et al.*'s studies (1997, 1999), showed that the most important factors for the formation of organizing capacity in the planning and implementation of policies, are the clear definition of city vision, the capacity for strategic networks development and, finally, leadership. This view is also supported by the 'Cities of the future – global competition, local leadership' document¹ (PwC, 2005:10) that recognise that political leaders and city managers require a new approach to networks and arenas for dialogue with citizens, companies and organisations so that strategic growth and development can be achieved on a sustainable basis.

Furthermore, Cheshire and Magrini (1999, 2001) and Cheshire *et al.*, (2000), examine the role of local policies and their influence on region development and conclude that the ability of effective development policies on local level, mainly of the strategies for local development promotion policies, is not a random procedure but it is related with a number of factors the commonest of which is the structure of the local authority - or the administrative ability. Especially interesting are considered the views of Dicken *et al.*, (1994) as well as Cheshire and Gordon's (1995), who supported that the role of local authorities should not focus on the effort to attract direct foreign investments only, but also on the ability to create the proper 'business environment' where the firms will be able to operate effectively.

Following Meyer-Stamer (2002), the public sector supports firm competitiveness. Sustains the firms operation, offers supporting services to them, especially on fields which demand collective action such as education and training, employment projects development and provision of motives for new firms establishment and investments (i.e. business incubators – OECD 2000, Kmetz, 2000; Aerts *et al.*, 2005),

¹ The aim of the project is to identify the most important trends and challenges affecting major cities across the globe.

training and enterprise councils (Campbell, 1990; McBride, 1993; Wong, 1998; Sotarauta, 2007) and Local enterprise and development companies (McQuaid, 1997; Lorendahl, 1996; Raco *et al.*, 2003; Pike, 2007), development agencies (Canzanelli, 2011; Mountford, 2009). A number of older and recent studies, award the significance of development partnerships between the public and private sector (Sellgren, 1990; Smallbone, 1991; James, 1997; Fuller *et al.*, 2003). Following Batric (2003), there are advantages, as well as risks, in pursuing local economic development with involvement from the private sector. This can be in the form of a formal public-private partnership that administers some programs or tries to coordinate programs, a formal public-private partnership that implements a specific project, or more informal public-private cooperation. The promotion of sustainable urban development and the implementation of the partnership principle are two complementary, mutually reinforcing goals of EU policies aiming at successful urban governance (Getimis and Grigoriadou 2004).

In addition, partnerships are vital to any sustainable redevelopment program because they foster communications and the building of cooperation and trust between relevant stakeholders. Groups such as community development organizations, chambers of commerce, or business councils can contribute to the process of local economic development (Bartsch 2006, p.2; Carley *et al.*, 2000; Dekker and van Kempen, 2004). More particularly, Bennett and Krebs (1991, p.22) supported that the base for the planning and the implementation of economic development actions on local level is ‘partnership’² which is an intermediate level between actions which are developed by firms individually and actions which take place under the auspices of Local Self-Government, but also actions on higher governmental level.

Furthermore, Bennett and Krebs (1991, p.21), approaching the relation between firms and local authorities mention the creation of ‘entrepreneurial agents’ which will manage and control the available resources and sort out the priorities in firms’ actions with one another and with other public and business actors. A relevant argument that focused on the efficient use of the existing resources, has been expressed by Lowndes and Skelcher (1998, p.315), Wallis and Dollery (2002) and more recently by Drever (2006), while Giaccherio *et al.* (2007, p.173, cited in Cantner and Malerba 2007), supported that relationships between agents, and between agents and institutions in local level, become an important element in the creation of dynamic competitive advantages, based on the formation, transmission and evolution of knowledge. In addition other studies (Hagedoorn *et al.*, 2000; Baert and Shipman, 2005; Trim, 2011), awarded the establishment of partnerships between local authorities and higher education institutions and research centers. Scott *et al.* (2004, p.12) in the frame of ‘Local Futures’ project, supported that the new strategic policy and planning environment requires local governments to share power with other public and private organisations, while in a very recent study regarding the factors that influencing SMEs competitiveness in Western Region of Romania, Bibu *et al.* (2008) find that the governmental and states institutions have an important role in firms activities, considering that government and non government organizations can be more involved in consulting activities, training, creating a favourable environment for

² Such co-operation are mentioned the following:

a) Simple business development initiatives which are self funded (Metz 1990). Mainly, they refer to new technology introduction, human resources education and training e.t.c.

small and medium business, while the most important communication channel between firms and government are county organizations for SME's, chambers for industry and trade. A good example of entrepreneurial prototyping is the Swedish city of Gavel. In order to create growth and strategic development in the city and in the region, the city has developed a model that integrates the city and its public companies, private companies, the university, the non-profit sector and the citizens who all make a special contribution to the city and the region. In addition similar models of LED planning have been developed the last 20 years, by Bennett and Krebs (1991: 21) for Germany and UK cities and Beyer et al. (2003:6), for Africa (Livingstone, Zambia and Kigali, Rwanda). For instance, Beyer et al., development model, draws its strength from the core – the local government as well as the stakeholders. The model reflects the importance of participation and partnerships. Flexibility is critical, and stakeholders should resist the tendency to compartmentalize and dictate a linear, definitive end to stages in the LED process.

All the above factors and models lead to the seeking of those groups in the city environment which, having the desire and also the knowledge, will act strategically towards the organizing of planning and the successful implementation of the chosen competitiveness policies (Cheshire and Magrini, 1999; Polidano, 2000; Metaxas, 2011).

The previous discussion leads to the conclusion that partnerships between groups that participate in procedures of development and competitiveness at local level could contribute towards the direction of growth and progress. The representation of a common vision and goals or interests is not simple but complicated and multidimensional. The most important issue is that the dynamic and ability of local authorities to plan and implement development policies and activities with the local and regional community so that the development procedure is guaranteed and controlled. This research focuses exactly on this, the importance of specific development policies in a metropolitan city of South Europe and Greece, Thessaloniki. The added value of this research is significant due to the lack of similar studies on local level in this unique region. Similar studies are those of Javier Santos-Cumplido and Linan (...) on enterprises and business men of Seville in Spain and of Metaxas and Kallioras (2007) on enterprises of the urban dipole Larisa-Volos and on enterprises of other cities in Balkans (Tirana, Sofia, Thessaloniki) [Petraikos et.al., 2007]. Further this research raises questions and issues about local development since it outlines/presents the views and estimations of a large number of local enterprises who have a clear view of the local society and economy and as a result their views/opinions are valid/ important. Finally, this research beside the fact of giving/ showing a satisfactory image/ view of the inner development of Thessaloniki its results could lead to evaluation, planning, design and implementation or rejection and reconstruction of specific actions and policies locally. More specific through exploratory factor analysis and cluster analysis this research ranks the importance of policies for enterprises according to production sector while/and also it examines the degree of partnerships among enterprises and local authorities and how these partnerships effect their development and competitiveness. The structure of this research is as follows: The profile of Local Government is presented briefly in the next section. It follows the methodology and the presentation of the studied city and enterprises. In the fourth section the results of

CFA analysis are presented and answers are given to the raised questions. The final section closes with the results of this research.

2. Local Authorities and development policies in Greece in brief

In *Greek* cities, the system of decentralization and local authorities have undergone successive reforms, up to now, with the newest one being the proposal for a new Municipalities Code of Municipals and Communities in the frame of the Greek Law, No 3852/2010. The 2010 “Kallikratis” reform affects at the same time the two levels of governance and introduces a new level of Devolved Authorities between the Central Government and the Regional Self-Government. The elected character of the political decision-makers expands in regional level, setting the regions as the second degree of the Greek Self- Government. Transparency, meritocracy, accountability, open governance, effectiveness, responsiveness are Reforming Key–Words (Alexopoulou, 2010). ‘Kallikratis’ is the continuing of the decentralisation process that started three years ago under the frame of Greek Law 2539/97 (Kapodistrias Law) [Besilla-Vika 2004, p.427]. The grater and more complex these reforms are the greater and more acute is the opposition resulting on local and regional level. This fact surely affects matters of local development and competitiveness among cities, especially the ones with large populations. Moreover, on regional level, there is little entrepreneurial activity on the part of local authorities. Some of the reasons why lie on the lack of information, the small size of the existing firms and their short life-cycle, the negative idea that local societies have of entrepreneurialism (Besilla-Vika 2004, p.433). Unfortunately, in the case of Greece, historically, the role of Local Authorities has always been regulated by the Central Authority. Therefore, the need for substantial reform which will meet the new requests of the society, to much greater degree now depends on the ability of the central authority to listen carefully to and foresee the new needs arising. In addition, Local authorities’ contribution to safeguarding social cohesion and avoiding social exclusion is considered to be of major importance (Pitts and Hope, 1997; Sakellaropoulos, 2005). The basic parameter for this relationship is the natural ability of the local state to understand and react much more directly than the corresponding mechanisms of the central state and the main means for this is undertaking local initiatives (Papakonstantinidis, 2002; Delitheou and Gennadopoulou, 2010).

Greece, also, has recently begun to exploit the potentials of implementing partnerships. First came the adoption of concession agreements for materialization of three large scale projects during the 1990’s, later through the implementation of a legal and institutional framework in 2005. It is important, however, to see how PPPs can be integrated in the Greek system of delivering public works, especially regarding the adoption of partnerships by local governments, who try to function in a highly centralized environment (Karaiskou, 2007). Regarding the level of partnerships among Public Authorities (Public Sector) and Private Sector, Law3389/2005 created a new framework for public-private partnerships (PPP). Greece, also, has recently begun to exploit the potentials of implementing partnerships.

Furthermore, the new special development framework of the Ministry of the Interior, the so-called “Theseas-Program” (www.ypes.gr /theseas), is financially encouraging PPP’s of municipalities. Distribution

of “Thiseas” is made according to a set of criteria (GDP, declining areas, unemployment rate etc.). In this way local governments in “wealthy” Regions like the one’s of Attica or the metropolitan area of Thessaloniki are receiving less funds than one would expect in view of their population.

3. Research questions, the profile of the city and the firms

By taking into consideration the previous discussion, the article tends to examine what are the most important development policies for firms’ development and in what level these policies receive different significance from firms belonging in different production sectors.

The on field study took place in the city’s core of Thessaloniki (Greece) and up to 50 km out. The *city of Thessaloniki* is the second-largest city in Greece and the capital of the periphery of Central Macedonia as well as the de facto administrative capital of the Greek regions of Macedonia and Thrace (11,7% of). According to the 2011 census, the municipality of Thessaloniki had a population of 315,196, while its Urban Area had a population of 793,344. The Larger Urban Zone (LUZ) of Thessaloniki has an estimated 995,766 residents (2004), while its area is 1,455.62 km² (562.02 sq mi). Thessaloniki is Greece's second major economic, industrial, commercial and political centre corresponds to and a major transportation hub for the rest of southeastern Europe; its commercial port is also of great importance for Greece and the southeastern European hinterland. Thessaloniki is one of the largest ports in the Aegean and as a free port, it functions as a major gateway to the Balkan hinterland. In the first six months of 2010, more than 7.2 million tons of products went through the city's port, making it one of the largest and most used ports in the Balkans. The city is also a major transportation hub for the whole of south-eastern Europe, carrying among other things, trade to and from the neighboring countries. Recently Thessaloniki is also slowly turning into a major port for cruising in the eastern Mediterranean. The economy of Thessaloniki is being transformed into a service economy with a rapidly grown logistic sector, whereas its economic hinterland shows industrial concentration. Its exports (20% of total national exports) are oriented to EU member countries such as Germany and the United Kingdom, while in the last 15 years exports towards Eastern Europe and Balkans have been growing rapidly (Kunzmann and Wegener, 1990; Sassen, 1991; Labrianidis, 1996).

According to EMBRACE Project (2005:5) SMEs located in the rural and/or urban underdeveloped areas of the Prefecture of Thessaloniki face a lack of competitiveness in especially of ICT usage that prevents them from accessing Knowledge and the Information Society. As a result, SMEs face problems in boosting their efficiency and are excluded from transnational cooperation and globalization of their activities. This problem originates in multiple factors, that concern people, procedures, policies and the location of the respective areas.

The research has been done through the collection of primary data from firms from all production factors (manufacture, commerce, services and tourism). In our study we took advantage of collecting primary data, which cannot be revised because they are related to a specific period and also have little or no chance of false measurements (Hansson, *et.al.* 2005). The selection of the firms was based on the

register of the Commercial and Industrial Chamber of Thessaloniki: all the firms had over 10 employees while 81,7% of them were local. The research took place from January, 2008 to June, 2009 through the use of questionnaires and personal interviews. Each interview lasted in average 25-30 minutes. Interviews were made with high level managers and also business-owners while each interview was certified with the signature of the responder who filled in the questionnaire and the business stamp. The questionnaires has been distributed to 254 firms and 227 were completed, ensuring a satisfactory response rate (89,4%). Initially twenty firms were randomly asked to review the questions and the entire questionnaire was pre-tested.

Regarding the profile of the *studied firms*, 35,7% of them belongs to the industrial/ manufacture sector, 25,0% to the commercial sector, 19,9% to the services and 19,4% to the tourism sector. As mentioned above, most of the firms are local - something that means that the appreciation of firms is extremely important, since they are aware of the urban environment (weaknesses and strengths) as well as of the development policies applied by the local authorities, as much for the benefit of the city as for the benefit of the businesses themselves (Table 1). Furthermore, concerning the number of employees the average is 52 employees. Consequently we report on small-medium firms in total.

Table 1: Number and percentage of the studied firms per production sector

| Production Sectors | Number of firms | % of the total |
|---------------------------|------------------------|-----------------------|
| Industrial/ Manufacture | 81 | 35,7 |
| Commercial | 57 | 25,0 |
| Services | 45 | 19,9 |
| Tourism | 44 | 19,4 |
| Total | 227 | 100,0 |

Source: Authors

4. Structure of the questionnaire: the selection of development policies

In order to design an appropriate and efficient questionnaire, we proceed to a systematic review of the proposed policies for local development and the strengthening of firms' partnerships. Following Viesti (2002), the purpose of policies for local development is to increase the economic development, employment and productivity, and to improve the living standards and life quality, of a group of citizens and of enterprises located in a specific geographical area. Bartik (2003) through an extensive and very important analysis of local development policies argued that local economic development is arguably affected by all local government activities. However, local economic development policy is usually defined more narrowly as special activities, undertaken by public or private groups, to promote economic development.

Several studies (Harvey 1989; Syrett 1994; Priemus 2002; Margassi, 2004) point out that the effectiveness of development programs/ policies for cities and micro regions is often hindered by the limited capacity of municipal governments. Taking this fact under consideration, the selection of the specific policies was made with special care so that the will cover a wide range of co-operations in fields such as joined actions between private and public sectors, co-operations with higher education institutes,

the implementation of strategic planning methods, actions concerning the development of connection networks with other cities on European level, as well as actions pertaining to the social and entrepreneurial environment of cities. It is important that the specific development policies comply with the E.U. principles towards the reinforcement of competitiveness of its regions, with main development axis the co-operation between local/regional administrations and firms for the planning and the implementation of selected actions (European Communities, 2003). In addition Bartik (2003) presents three main types of local development policies: *Fiscal benefits* that include new jobs that will result in increased local profits, wages, sales, and property values, all of which will enhance local tax revenue, *employment benefits*, by encouraging businesses assistance through economic development programs, and *market failures*, focusing on the increase of business productivity mainly through telecommunication, information and R/D.

We will support that the above policies are planned having a common objective that is the economic development and the competitiveness of regions where they are implemented, while they are all focused on the development and the actions of firms located in them. The most important fact is that the success as regards the development of such policies depends on the substantial participation of all the actors involved in the activities of the cities, their capacity to share, as far as possible, a common vision and interests as well as expertise and experience in order to appropriately design and implement these development policies.

The questionnaire is composed – apart the general characteristics of the firms – of 23 questions regrouped in five thematic units. Each one of these 23 development policies is based on an extended Likert scale (1 to 9) [Likert 1932, Stathakopoulos 2005, p.134]. This 9 scale points has been employed in order to evaluate the strength of agreement or disagreement regarding the different issues raised in the questionnaires. We employed a quite large scale because we considered that the respondents' knowledge is sufficient in order to avoid the abuse of endpoints which may occur with long scales³.

5. Analytic Plan of the study

5.1. Exploratory measurement results

The Exploratory Factor Analysis (EFA) has been initially implemented with the 23 observed variables. The objective was to define the main dimensions of the firms' assessment about the importance of the selected policies. EFA is especially pertinent when there is no a-priori knowledge about how many of the factors / constructs needed to explain the relationship between the set of indicators or items (Gorsuch, 1993; Tabachnick and Fidell, 2001; Sharma, 1996). The usefulness of the method is confirmed by the fact that there is a wide range of its implementation in various fields of empirical surveys (Piscitello and Sgobbi 2003; Jang et al., 2002; Topaloglou et al., 2006).

³ Often five ordered response scales are used, although many researchers advocate using seven or nine scales (Liargovas and Skandalis, 2008). A recent empirical study of Dawes (2008) found that data from 5-scale, 7-scale and 10-scale items showed very similar characteristics in terms of mean, variance, skewness and kurtosis after a simple transformation was applied.

In order to obtain a more interpretable and simple solution, it is generally suggested to proceed to a rotation procedure (Yaremko et al., 1986). The choice of the rotation method (orthogonal or oblique) depends on the presence or not of correlation between the extracted factors (Field, 2000). In the present research, it appears that the oblique rotation method was more appropriate than the orthogonal one because following Tabachnick and Fidell (2007:646), we observed that the data were driving factor correlation, so that the structure is not a simple one (Cattell, 1978; Kline, 2002).

As recommended by Thompson and Daniel (1996), we used “multiple decision rules” as well as reasoned reflection in order to fix the number of extracted factors (constructs). The *Kaiser's* criterion suggests to select the factors with eigenvalue greater than 1 (Nunnally, 1978), taking into consideration these indicators of variance are constrained to decrease monotonically from the first hyper-variable to the last one. one because variables with eigenvalue < 1 . We also pay a specific attention to the total amount of variance explained by the extracted factors in order to limit the loss of information (proportion of total inertia). If there is once again no absolute rule or precise threshold, it is generally admitted that the factors to be retained, are those which guaranty about 70-80% of the total variance. We also consider the scree test of Cattell (1966) and we examine in which extent a linear regression fits well the scree plot, dropping successively, one by one, the eigenvalues from the higher until the lowest one (Nelson, 2005).

After choosing the right number of factors, we examined the internal consistency of the items in the scale formed by the extracted factor that is the average correlation of items in a survey instrument to gauge its reliability (Santos, 1999; Santos and Clegg, 1999; Bussing et al., 2005; Jelenc, 2007). For this purpose, we proceeded to the reliability test based on the estimate of Cronbach's α (Cronbach, 1951) while the Corrected Item-Total correlation (CITC) analyses were also conducted for each factor construct. As suggested by Gliem and Gliem (2003), “when using Likert-type scales, it is imperative to calculate and report Cronbach's alpha coefficient”. We also consider the variation of the alpha reliability coefficient when items are removed from the scale, in order to best evaluate the internal consistency of each factor, taking into account that internal consistency ranges between zero (0) and one (1). A commonly-accepted rule of thumb is that an Cronbach's α of 0.6-0.7 indicates acceptable reliability, and 0.8 or higher indicates very good reliability (Rust and Cooil, 1994; Goulimaris et. al., 2009)⁴. As regards the CITC, the traditional cut-off value of 0.50 was retained (Lu, Lai and Cheng, 2007). The goal in designing a reliable instrument is to relate the scores on similar items (internally consistent), but for each to contribute some unique information as well. This complex process allowed us to specify the basic structure of our predictive model: main constructs (latent variables) with their associated observed variables.

5.2. Structural equation modelling (SEM)

As suggested by Anderson and Gerhing (1992), a two-step approach was undertaken to evaluate whether the suggested model fits well our data.

⁴ More precisely, the rules of thumb proposed by George and Mallery (2003: 231) are the following: “>.9: Excellent, >.8: Good, >.7: Acceptable, >.6: Questionable, >.5: Poor and <.5: Unacceptable”.

The first step concerns the implementation of Confirmatory Factorial Analysis (CFA) through which it is possible to estimate the measurement component of the constructs. The CFA was specified as follows: Policies variables (observed variables) have been loaded on their underlying construct and inter-construct correlations were allowed. Their corresponding measurement errors have also been estimated.

In order to verify that the structure of the model is acceptable, three categories of tests were examined. The first one concerns the *absolute fit indices* through which we examined in which extent our model fits the sample data. The good approximation of the data is based on the Chi-squared test where a non-significant chi-square leads to the non-rejection of the model (p -value > 0.05) and suggests a good approximation otherwise we will have “a lack of fit” (Mulaik et al., 1989). Because this test is sensitive to sample size (Bollen, 1989; Joreskog and Sorbom, 1993), we pay more attention to the well-known *Chi-square to degree of freedom ratio* whereby a ratio < 0.7 is acceptable while a ratio < 0.2 is considered as most pertinent (Tabachnik and Fidell, 2007). The residual-based index RMSEA (Root Mean Square Error of Approximation) is the second important index for the model evaluation and indicates how the model fit the population covariance matrix. If values larger than 0.10 reveal a very poor fitting model (Browne and Cudeck, 1993), there is anymore quite a consensus about the upper limit of 0.07 (Steiger, 2007). We also take into consideration the Goodness of Fit Statistic (GFS) and the adjusted one (AGFS) where values greater than 0.90 indicate well fitting models as well as the Root Mean Square Residual (RMR) and the standardised one (SRMR).

The second category of tests is related to the *incremental fit indexes* through which a chi-square value is compared to a baseline mode. We examined common reported fit indexes such as Normed Fix Index (NFI) and Comparative Fit Index (CFI). For these tests we followed the Hooper and al (2008) recommendations.

Finally, the third category is related to *parsimony fit indices*: the Parsimony Goodness of Fit (PGF) and the Parsimonious Normed Fit Index (PNFI) proposed by Mulaik et al (1989). Even if no threshold levels have been proposed, the authors suggest that values over 0.90 are mainly desirable.

Second step: After confirming the good approximation of the data, we proceed with the predictive model. In this step, the measurement and structural components were simultaneously estimated. The model's specification can be summarized as follows: each one of the constructs (groups of policies) was specified to predict its respective items (observed variables). Then the groups of policies were allowed to freely inter-correlate with one another and all were set to be predictive of policies impacts' assessment on firms' competitiveness. Measurement errors and disturbance terms were also estimated. Finally we have to mention that the number of estimated parameters is not allowed to exceed the number of unique data points, necessary condition for estimating a solution.

6. Results

6.1. Exploratory Factor Analysis

Following the above described methods, six (6) new hyper-variables have been extracted, allowing a significant reduction of the initial dimensions (23). The Kaiser-Meyer-Olkin (KMO) reflecting the degree

of synergy among the initial variables and testing the construct validity of the model, has a quite high value (0,760) [Kaiser, 1974] while at the same time the communalities (Table 2), measuring the variance of the 23 initial variables contained in the six selected factors, are systematically higher than 50%

The six (6) hyper-variables with eigenvalues >1.00 explain around 67% (quite satisfactory share) of the total variance of initial variables.

Table 2: Total variance explained by the 6 hyper-variables

| Hyper-variables | Extraction Sums of Squared Loadings | | |
|-----------------|-------------------------------------|---------------|--------------------------|
| | Total | % of variance | Cumulative % of variance |
| 1 | 4,981 | 22,642 | 22,642 |
| 2 | 3,140 | 14,272 | 36,915 |
| 3 | 2,129 | 9,679 | 46,594 |
| 4 | 2,001 | 9,094 | 55,688 |
| 5 | 1,364 | 6,199 | 61,887 |
| 6 | 1,207 | 5,488 | 67,375 |

In oblique rotation, the interpretation of the hyper-variables is based on the structure matrix reflecting the correlations between the initial variables and the factors while the pattern matrix holds the beta weights reproducing variable scores from factor scores. Even if in applied research, the analysis is generally based on the pattern matrix (Brown, 2006), we observe that the analysis of the two matrix gives similar results (Table 3). Most of the loadings are > 0.60, confirming that the initial variables contribute clearly to the extraction of the six hyper-variables (Bollen and Lennox, 1991; Chang et al, 2003).

Table 3: Structure and Pattern Matrixes

| | | Pattern Matrix | | | | | | Structure Matrix | | | | | | |
|------|---|----------------|--------|---|---|---|---|------------------|--------|---|---|---|---|--|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| DP09 | Providing a good management labor relations and business ethics locally | 0,820 | | | | | | 0,825 | | | | | | |
| DP10 | Encourage the innovation and the diffusion of new technology (R/D centres, technological institutes, industrial parks etc). | 0,765 | | | | | | 0,776 | | | | | | |
| DP16 | Controlling and managing the local / regional of land costs | 0,750 | | | | | | 0,765 | | | | | | |
| DP17 | Controlling and managing the local / regional of labor costs | 0,651 | | | | | | 0,703 | | | | | | |
| DP5 | Development of City Marketing Plan with specific aims and budget | 0,537 | | | | | | 0,579 | | | | | | |
| DP2 | Promotion of partnerships with Universities and Research Centres in development projects | | -0,851 | | | | | | -0,863 | | | | | |
| DP15 | Encourage the creation of efficient urban infrastructure and enterprises zones | | -0,762 | | | | | | -0,778 | | | | | |
| DP21 | Reconstruct the relations with the central state government | | -0,696 | | | | | | -0,741 | | | | | |
| DP19 | Encourage the establishment of institutions, in order to support business and economic development locally. | | -0,681 | | | | | | -0,711 | | | | | |
| DP20 | Organise and improve the operation and the capability of public organizations related to business (i.e. associations, chambers of commerce and industry, business agencies, etc.) | | -0,578 | | | | | | -0,630 | | | | | |

| | | | | | | | | | | | | | |
|------|---|--|--|--------|--|--|--|--|-------|--------|--|-------|--------|
| DP4 | Participation on the planning and the implementation of a city development plan | | | -0,729 | | | | | | -0,712 | | | |
| DP22 | Promote networking among enterprises, especially SMEs, in national and international level | | | -0,703 | | | | | | -0,745 | | | |
| DP14 | Provision of direct loans to small and medium enterprises | | | -0,634 | | | | | | -0,626 | | | |
| DP13 | Existence of business incubators providing to new businesses cheap space, shared office support and business development advice | | | -0,547 | | | | | | -0,608 | | | |
| DP12 | Participate on fiscal benefits provision, by encouraging new business start-up and new jobs creation | | | | | | | | | | | 0,762 | |
| DP23 | Establish an 'entrepreneurial profile', improving 'organising capacity', place management, and know-how of local public authorities | | | | | | | | | | | 0,661 | |
| DP18 | Organise and develop cooperative planning and open dialogue with business local actors/ organisations | | | | | | | | | | | 0,614 | |
| DP7 | Participation in networks with other cities | | | | | | | | 0,798 | | | | 0,792 |
| DP1 | Promotion of partnerships with private sector in specific development projects | | | | | | | | 0,652 | | | | 0,686 |
| DP3 | Enforcement the continuing learning and training process | | | | | | | | | -0,837 | | | -0,813 |
| DP8 | Existence of attractive investment motives | | | | | | | | | -0,714 | | | -0,752 |
| DP6 | Seeking for European Funds and programmes | | | | | | | | | -0,575 | | | -0,636 |
| DP11 | Efficient control of local taxes | | | | | | | | | -0,471 | | | -0,530 |

Generally, the above results demonstrate the reliability degree of the estimates of the firms in our research and secondly, because these estimates may be associated to the design and realization of specific development policies so as to stimulate business and local development. Consequently, the EFA allows us to define six constructs, named as COST, ORGAN, BUSINESS, ENPROF, PARTNER and FUND. More particularly:

Construct 1 - COST: it mainly awards the importance of management and controlling local cost of land and labour. It also combines qualitative, soft factors on firms' competitiveness such as innovation and technology with the existence of labor relations and business ethics. This construct combines two crucial dimensions for the studied firms. In particular, firms support that the development of policies regarding the efficient control and evaluation of local costs but also the existence of labour ethics constitute the core of their development strategy, contributing to create a healthy and attractive business environment, capable of attracting new investments. Such an attractive environment is also dependent of the local actors' capacity to develop a well focused City Marketing Plan which will guaranty the necessary conditions for the establishment of innovative firms and not only firms looking for low cost of land and labour.

Construct 2 - ORGAN: is a combination of items related to the organisation of efficient relationships and partnerships with different institutions covering Universities, Research Centres as well as the central state government. The development of efficient relationships / partnerships is also linked with the establishment of any other type of institutions able to support the local business and economic

development. Finally the creation of efficient infrastructure and enterprises zones as well as the improvement of public organisations regarding their operation and capacity to promote business are considered as a prerequisite in order to reinforce the proximity between actors and so far the development of partnerships. The picture given is that this construct and the items that compose it are considered very important for city's and firms' development. Firms appreciate that the development of partnerships and cooperative planning with local decision makers and local authorities could be the base for a dynamic city development which will benefit and enhance local business competitiveness. This fact is very crucial because it arises as a need of the business environment of a city with unique dynamic as Thessaloniki is.

Construct 3 – BUSINESS: combines items related to the development of business activities, especially based on SME. The studied firms award the significance of the establishment of networking among them, but also the provision of loans and the existence of business incubators for business support. The current frame of these items is the enhanced local business activity by policies with aim to strengthen the existed enterprises and set the bases for new (enterprises). Enterprises request direct policies with practical application in order to have clear results in their environment and in the broader urban space. This need is real and is important when it comes from the local enterprises.

From the above analysis it results that for the studied enterprises/companies the development policies on local level depend by the efficiency/capacity of public authorities and the rest of the decision makers to develop beneficial partnerships for the/in favor of the local economy and society and to ensure the control and manage the local authorities frame and costs while also follow planning, evaluation and implementation of direct practical policies in favor of the local enterprises and the business activity as a whole. As a result this triptych/ groups of policies could be the base for reconstruction a new local development and competitiveness framework for the city of Thessaloniki and its enterprises.

Nevertheless, three complementary constructs have been produced: *ENPROF* which mainly concern policies related to the development of a territorial competitiveness of the city, giving an “entrepreneurial profile” to the local public authorities as well as local actors/ organizations, *PARTNER* mainly through the development of specific partnerships with private sector and participation to networks with other cities, and finally *FUND* which mainly reflects the strengthening of the local economy through EU funding, attractive incentives for investment, enforcement of the continuing learning and training process. This reinforcement of the local economy also requires an efficient administration of local taxes.

Through the above analysis we can argue that firms seem to give greater importance to policies directly related to their own environment and their development comparatively to policies concerning local development plans and creation of an attractive business and entrepreneurial image of the city in itself, able to attract investment, funding programs and European collaborations.

6.2. Reliability Measurement

The results of the reliability analysis and the values of the CITC are summarized in the Table 4. Following the rules of thumb proposed by George and Mallery (2003) it appears that the first two factors provide “Good” values of alpha, while the other ones are “acceptable” (especially the 3rd, 4th and 6th). As

regards the 5th hyper-variable, the alpha value is relatively “poor” but this result is not so much surprising, taking into account that the number of items in the scale is very limited.

Table 4: Reliability Analysis

| Constructs | Number of items | Cronbach's Alpha | Items (Policies) | | Mean | Std. Deviation | Corrected Item-Total Correlation (CITC) |
|------------|-----------------|------------------|------------------|--|------|----------------|---|
| COST | 5 | 0,804 | DP09 | Providing a good management labor relations and business ethics locally | 5,32 | 1,483 | 0,669 |
| | | | DP10 | Encourage the innovation and the diffusion of new technology (R/D centres, technological institutes, industrial parks etc). | 5,6 | 2,264 | 0,617 |
| | | | DP16 | Controlling and managing the local / regional of land costs | 5,18 | 1,372 | 0,574 |
| | | | DP17 | Controlling and managing the local / regional of labor costs | 4,63 | 1,118 | 0,58 |
| | | | DP5 | Development of City Marketing Plan with specific aims and budget | 6,11 | 1,75 | 0,494 |
| ORGAN | 5 | 0,836 | DP2 | Promotion of partnerships with Universities and Research Centres in development projects | 5,78 | 1,951 | 0,752 |
| | | | DP15 | Encourage the creation of efficient urban infrastructure and enterprises zones | 4,65 | 1,545 | 0,68 |
| | | | DP21 | Reconstruct the relations with the central state government | 4,88 | 1,404 | 0,615 |
| | | | DP19 | Encourage the establishment of institutions, in order to support business and economic development locally. | 5,27 | 1,811 | 0,597 |
| | | | DP20 | Organize and improve the operation and the capability of public organizations related to business (i.e. associations, chambers of commerce and industry, business agencies, etc.) | 5,3 | 1,706 | 0,549 |
| BUSINESS | 4 | 0,67 | DP4 | Participation on the planning and the implementation of a city development plan | 4,33 | 1,566 | 0,483 |
| | | | DP22 | Promote networking among enterprises, especially SMEs, in national and international level | 5,75 | 1,114 | 0,518 |
| | | | DP14 | Provision of direct loans to small and medium enterprises | 5,67 | 1,709 | 0,497 |
| | | | DP13 | Existence of business incubators providing to new businesses cheap space, shared office support and business development advice | 4,41 | 1,062 | 0,492 |
| ENPROF | 3 | 0,681 | DP12 | Participate on fiscal benefits provision, by encouraging new business start-up and new jobs creation | 6,47 | 1,63 | 0,462 |
| | | | DP23 | Establish an 'entrepreneurial profile', improving 'organizing capacity', place management, and know-how of local public authorities | 5,93 | 1,501 | 0,462 |
| | | | DP18 | Organize and develop cooperative planning and open dialogue with business local actors/ organizations | 5,61 | 1,61 | 0,421 |
| PARTNER | 2 | 0,59 | DP7 | Participation in networks with other cities | 6,19 | 1,533 | 0,342 |
| | | | DP1 | Promotion of partnerships with private sector in specific development projects | 6,23 | 0,743 | 0,342 |
| FUND | 4 | 0,703 | DP3 | Enforcement the continuing learning and training process | 5,19 | 2,187 | 0,49 |
| | | | DP8 | Existence of attractive investment motives | 4,9 | 2,029 | 0,603 |
| | | | DP6 | Seeking for European Funds and programmes | 5,29 | 2,28 | 0,499 |
| | | | DP11 | Efficient administration of local taxes | 6,22 | 1,987 | 0,519 |

Moreover the values of the CITC for these two variables are clearly lower than the admitted threshold of 0.50. We have also to mention that the CITC is systematically lower than 0.50 for the three policies

associated to the ENPROF construct. Based on these non desirable results, the two constructs ENPROF and PARTNER have been dropped from further analyses.

6.3. Hypotheses of the Model

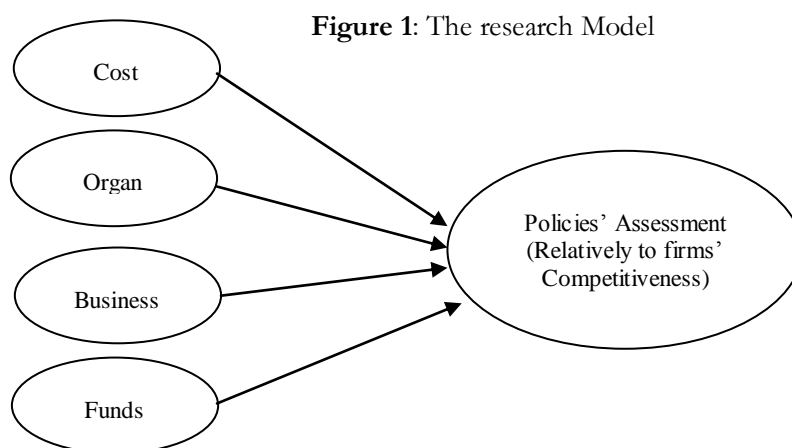
Taking into account the above results, the hypotheses that we are going to verify, are the following:

Hypothesis 1: the firms' perceptions – assessments distinguish mainly four categories of policies with effective impact on their competitiveness and future development. These categories correspond to the four constructs (latent variables) of the model.

Hypothesis 2: Policies related to *Cost* and *Organization* dimensions are the most determinant for the firms and should have the higher impact on their competitiveness.

Hypothesis 3: Policies contributing to the development of *Business* activities and allowing promoting through *Funds* attractive investments are also considered positively, even if they appeared at a second level, comparatively to the Cost and Organization's policies.

As a result of the above analysis, the proposed model that we are going to test is representing by the following figure.



6.4. Confirmatory Analysis

The Confirmatory Factor Analysis applied to the 4 above constructs and their 18 associated items (Table 5) did not fit so well the data. The chi-square to df ratio is larger than 3 ($X^2 = 447.36$, $df = 129$) while the RMSEA (= 0,094) confirmed a mediocre fit (Hooper et al., 2008). The other common used indexes were around the admitted cut-off level but generally a little below. Nevertheless, all the items loading were statistically significant (p-value less than 0.01).

It was suggested to modify the initial model by introducing some errors' covariance as well as complementary relations (paths) between some items and latent variables. We did not accept that errors can covary, following a conservative strategy. As well known, the introduction of new paths must be made with great caution. Finding a statistically significant result cannot justify in itself the introduction of new relationships. For this reason, we examined the various suggestions and we decided to retain only those

considered as relevant in terms of the meaning of each construct. Consequently, we accepted the following modifications:

- Beyond the 5 initial items, the construct **Cost** is also related to the item DP11 “*Efficient administration of local taxes*”.
- the construct **Organ** (5 initial items) is also reflected the item DP4 “*Participation on the planning and the implementation of a city development plan*”
- the construct **Business** (4 initial items) is also related to the item DP8 “*Existence of attractive investment motives*”
- Finally, the construct **Fund** (3 initial items) is also related to the item DP19 “*Encourage the establishment of institutions (i.e. Community Development Loan Funds, development Banks, non-profit organizations etc), in order to support business and economic development locally*”.

The results of the CFA on the improved model are presented in Table 6 as regards the overall fit of the model and in Table 6 as regards the item loadings and the representativeness in their corresponding constructs.

Table 5: Overall fit of the improved model

| Category of Fit indexes | Goodness of Fit | Cut-off |
|------------------------------|-----------------|--------------------------|
| 1. Absolute | | |
| Chi square and df | 289,31 and 125 | |
| Ratio | 2.31 | < 2 good, < 5 acceptable |
| RMSEA | 0.073 | ≤ 0.06 |
| 90% C.I. | [0.060 – 0.086] | |
| GFI | 0.905 | ≥ 0.95 |
| AGFI | 0.859 | ≥ 0.90 |
| SRMR | 0.085 | ≤ 0.08 |
| 2. Incremental / Comparative | | |
| NNFI | 0.91 | ≥ 0.95 |
| CFI | 0.94 | ≥ 0.95 |
| IFI | 0.94 | ≥ 0.95 |
| 3. Parsimony | | |
| PNFI | 0.61 | No commun cut-off |

All items loadings are still statistically significant (p-value < 0.1). Some of them are especially well reflected by their construct. The Policies related to the Controlling and managing the local / regional of land and labor costs (DP16 and DP17) are strongly related with the construct *COST* (with $R^2 > 0.50$). The promotion of partnerships with Universities and Research Centres in development projects (DP2) and the encouragement of the creation of efficient urban infrastructures and enterprises zones (DP15) present the strongest relationships with the construct *ORGAN*. The policies contributing to the development of networking among enterprises - especially SMEs - (DP22) as well as business incubators providing new businesses cheap space, shared office support and business development advice (DP13) are highly related

to the construct *BUSINESS*. As regards the construct *FUND* it appears that policies providing access to European Funds (DP6) and policies offering attractive investment motives (DP8) are the most important.

Table 6: Items loadings on constructs

| Construct | Items | Estimates | Standardized estimates | T-values |
|-----------|-------|-----------|------------------------|----------|
| Cost | DP9 | 0.95 | 0.66 | 10.26 |
| | DP10 | 1.13 | 0.51 | 7.73 |
| | DP16 | 1.09 | 0.80 | 13.38 |
| | DP17 | 0.83 | 0.75 | 11.98 |
| | DP5 | 0.67 | 0.39 | 5.63 |
| | DP11 | 1.20 | 0.53 | 7.91 |
| Organ | DP2 | 1.52 | 0.78 | 13.92 |
| | DP15 | 1.20 | 0.76 | 14.16 |
| | DP21 | 0.95 | 0.68 | 11.53 |
| | DP19 | 1.42 | 0.79 | 12.29 |
| | DP20 | 1.14 | 0.66 | 10.65 |
| | DP4 | 0.71 | 0.48 | 6.21 |
| Business | DP4 | 0.88 | 0.60 | 6.97 |
| | DP22 | 0.81 | 0.72 | 10.76 |
| | DP14 | 0.68 | 0.39 | 5.37 |
| | DP13 | 0.73 | 0.69 | 10.11 |
| | DP8 | 0.77 | 0.39 | 5.90 |
| Fund | DP3 | 0.87 | 0.40 | 5.52 |
| | DP8 | 1.24 | 0.62 | 8.71 |
| | DP6 | 1.27 | 0.67 | 10.10 |
| | DP11 | 1.08 | 0.48 | 7.32 |
| | DP19 | 0.75 | 0.42 | 6.23 |

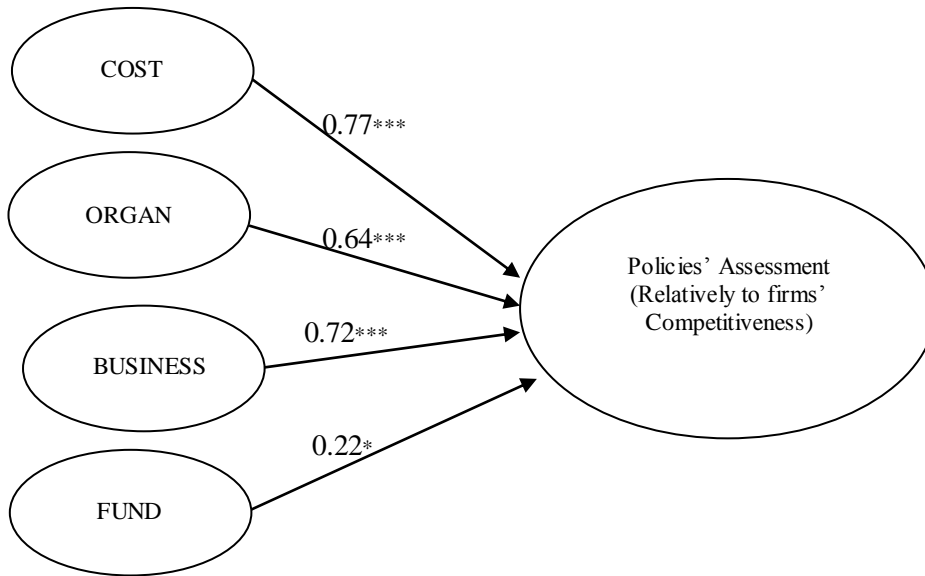
Note: all loadings have a p-value < 0,001

Considering the 4 constructs of the model, three of them were found to be highly interrelated ($p < 0.001$): Cost, Organ and Business while the 4th construct Fund presents the weakest correlations with the 3 other ones ($p < 0.05$) and more the correlation with Cost is not significant.

6.5. Predictive model

The four constructs have been set to predict the firms' assessment as regards the pertinence of the selected policies. The results of the model with standardized paths are displayed in figure 2. The predictive model successfully approximates the data: the $X^2(127, n=227) = 270.61$ with a ratio of 2.13 while the $RMSEA = 0.059$ [90% CI: 0.046 – 0.071]. The values of the comparative indices are at acceptable level (GFI=0.92; SRMR= 0.080; NNFI = 0.92; CFI and IFI=0.94). These results corroborate that the predictive model approximated properly the data.

Figure 2: Results of the Predictive Model



Note: *** p-value < 0.001 while * p-value < 0.05

Finally, the examination of the predictive model (Table 7) reveals that the four constructs are positively correlated with each other as we hypothesised initially. If all the paths are significant, we have nevertheless to mention that the link between the construct FUND and the firms' assessment of the policies is not as strong as the three other categories of policies. We can even consider it as weak.

Table 7: Validation of the hypotheses

| Paths | B | St. Error | t-values | R ² | Hypotheses |
|-----------------------|-------|-----------|----------|----------------|-------------------|
| COST – ASSESSMENT | 0.774 | 0.108 | 7.199*** | 0.60 | Positive relation |
| ORGAN – ASSESSMENT | 0.644 | 0.087 | 7.354*** | 0.42 | Positive relation |
| BUSINESS – ASSESSMENT | 0.718 | 0.101 | 7.141*** | 0.54 | Positive relation |
| FUND – ASSESSMENT | 0.224 | 0.101 | 2.222* | 0,15 | Positive relation |

8. Conclusions and further research

The aim of the article was to pinpoint the importance of specific development policies in the environment of the city of Thessaloniki, on the competitiveness of small-medium firms, mainly are located in this environment. After an extended bibliographical insight this research used 23 development policies which are considered important for the growth and competitiveness of SME enterprises. These development policies were evaluated through empirical research of 227 SME enterprises. Several methods used in order to come up with valuable and specific conclusions. More p[particularly:

First, the research support that the main interest of the relevant bibliography is about the importance of specific development policies for the growth and competitiveness of SME enterprises as well as of the

cities. Enterprises understand and designate the importance of specific policies that affect their development while at the same time through their evaluations they outline the character and dynamics of these policies in a unique dynamic, geographical, and productive city like this of Thessaloniki.

Through the CFA analysis and the examination of the structural model, we were able to demonstrate that the 227 enterprises surveyed have indeed an accurate judgment about the expected impacts of the policies examined in the present study as regards their competitiveness and business development. The analysis showed that enterprises recognize as positive factor the effort of the local authorities to set the area as a business pole in favour of enterprises and the broader area but policy problems of organization and planning arise that concern mainly the operation and support of local enterprises and specific those from the tourist and service sector.

It also appeared that the four main categories of policies present high level of correlations, corroborating the fact that, all these policies are not considered to be purely independent to each other. There are estimated complementary or even interdependent. A typical example of this understanding is the fact that policies encouraging the establishment of institutions in order to support locally business and economic development reflect not only the organizational improvement of the local economy but also the opportunity to facilitate at a regional even national level their investments' funding.

For the participants, the firms' competitiveness depends, above all, on the direct control of costs production and mainly on the efficient management of local and regional land and labor costs while they estimate that, by promoting innovation and new technologies, the impact on costs is strongly positive. Finally, the predictive model revealed that the 227 firms of the study believe that the prevailing policies for their future development are those that have a purely economic dimension (contributing to lower costs) or those that improve the organization of the local economy. Even in a quite difficult context the economic and organizational dimension are assessed as much more important than the aspect of investment financing and incentives.

This image raises issues of competence on planning and organization of development policies by the local authorities focusing on specific productive sectors so as the effect of these policies to be effective with positive results for enterprises.

Finally the above analysis is constrained by weakness since the sample of enterprises is rather small and the results concern only the enterprises located in Thessaloniki. Based on this fact, general conclusions can be drawn for other regions as well as for the whole Greece. This is subjected to further analysis.

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