The Entrepreneurial Marketing Strategy of Sustainable Building in Greece

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**Abstract:** The aim of the research was the identification of the entrepreneurial marketing strategy of the Greek construction sector, regarding the development and supporting of a sustainable building movement, aiming to the enhancement of the sector’s competitiveness and environmental protection. The research was focused on elements such as business resources and capabilities, their competitive advantages, entrepreneurial culture, strategic targets and promotion of products and services and how these factors could determine a sustainable building policy in the sector through the establishment of a cluster. Data were analyzed using SPSSWIN and the relative statistical tests were made. Most enterprises are focused on the development of environmental friendly innovative products, the improvement of products’ quality, their conformation to environmental legislation and the improvement of their business image and the reduction of production cost. Their strategy involves a) the promotion and institutionalization of sustainable building, b) the development of cooperative activities and c) supporting of a sustainable building cluster. The establishment of an effective entrepreneurial marketing strategy for the construction sector is fundamental on a basis of cooperation and synergy creation. This significance is more than ever up-to-date, proving that environmental protection and economic development can constitute the basis of Greece’s economic recovery.

**Keywords:** environmental marketing, sustainable building, entrepreneurship, sustainable development, clusters.

1. **INTRODUCTION**

1.1 Sustainable building and the Greek reality

Following the Kyoto Protocol, European Union’s environmental policy, is determined in its majority by actions which have to do with the reduction of human activities contribution in climate change and the conformation of the countries to the commitments and the targets of the protocol (Grubb et al., 1999; Oberthur and Ott, 1999; Carraro, 2000; Narayan et al., 2007; Saitku et al., 2008). The actions dealing with the confrontation of climate change are obligated to incorporate a change to the existing developing model, towards the direction of a sustainable, green economy with the use of modern technology. The development of this model has to be based and supported by the horizontal coordination of mitigation and reconciliation policies in the sectors of energy, industry, agricultural production and in many others such as the sector of constructions and building (Brebeny and Batay, 1992; Adams, 2001; Haughton and Hunter, 2003; Russo, 2003; Blakely and Leigh, 2009). The tendency in most developed countries has to do with the turn of people towards the achievement of a better quality of life and the sustainable management of natural resources showing respect to the environment. Thus, the interest of the market nowadays points to the development of a continuously growing “green development”, “green economy”, “green entrepreneurship”, “green building”, movement (Pearce and Atkinson, 1993; Sarmaniotis and Tilikidou 2000; Brown, 2003; Bansal, 2005; Tilikidou and Delistavrou, 2005; Henderson, 2007; Allen and Malin, 2008; Berchicci, 2008).

**Sustainable building** (Anink et al., 1996; Russo, 2003; Bunz et al., 2006; Radlin and Falk, 2009) concerns the design, construction and operation of buildings and landscapes that incorporate energy efficiency, water saving, minimization of wastes, the prevention of pollution, resources’ efficiency of the materials that are used and the quality of living in buildings, during all of the different phases of a building’s life. By definition, sustainable development, leads to “living cities” corresponding to residential and environmental needs, not only through resources and energy saving, but also by the capability to support more productive, stable and innovative economies in urban areas (Haughton and Hunter, 2003).

Greece, incorporating these policies to its residential development, legislates in favor of a more environmental friendly building and house activity. The energy demand of the building sector in Greece is expected to show a relative small increase during the next years, mainly because of the relatively limited increase of population and of the infiltration of more efficient energy technologies. Energy activity is improving with an average annual rate near to 1.9% (National Program of greenhouse gas emissions reduction, 2003). A deeper analysis shows that the construction sector in Greece constitutes one of the most dynamic sectors of economic activity having a total Gross Added Value in current prices for 2009 up to
9.581 millions (Greek Statistic Service, 2010). In a GDP percentage is up to 4% for the same year. Nevertheless, the above positive ambience in the construction sector was inverted by the recent economic crisis. The positive course of the sector was inverted from 2006 and onwards while a dramatic decline occurs since 2008, whereon the effects of the crisis start to become visible in Greece too. The situation seems to get worse in a dramatic way during 2010 and 2011, after the recent financial measures in Greece economy.

The above mentioned data, underline the imperative need that exists in the sector concerning the enhancement of production activity, the boosting of demand and competitiveness of the Greek constructive enterprises, in order to be able to successfully overcome the difficult economic circumstance, reversing the present negative ambience and boosting economic development of the sector and of the country in general.

1.2 The role of clustering and environmental marketing

According to a recent report of the European Clusters Observatory (2010), clusters constitute a fundamental part of the European economic reality but also of the policy for innovation and entrepreneurship. The benefits of clustering concern the achievement of economies of scale and scope, reduction of transactions cost, increase of interactions and cooperation between the enterprises, reduction of costs, public investments for the satisfaction of specific sector needs, creation of markets for the satisfaction of specific products’ needs. The growing focus on clusters, reflects the importance of specific initiatives at a regional level in order to constitute the driving force of innovation capabilities and business competitiveness (Prastakos et al., 2003; Pittaway et al., 2004; Gordon and McCann, 2005; Makios et al., 2006; Trigkas, 2010). At the same time, more positive results are being observed continuously concerning firms of many economic sectors, which are collaborating together and participating into a cluster and thus this participation is recognized as a valuable tool for economic development (Rosenfeld, 1997; Robinson, 2002; Cortright, 2006; European Commission, 2006 and 2007; National Observatory of SME’s, 2009; European Cluster Observatory, 2010).

Each successful cluster, implements more effective activities that either the enterprises – participants promote individually, or have not promoted them at all till now. These activities aim to the participants’ enhancement, as well as to their external business environment enhancement. The development of an integrated entrepreneurial marketing strategy constitutes a critical factor of a cluster’s successful operation and the role of environmental marketing could not be an exception.

Green or Environmental Marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, when the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment. (Polonsky, 1994, Grant, 2008; Pride and Ferrell, 2008). This definition incorporates much of the traditional components of the marketing definition, (Stanton and Futrell, 1987). Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising (Papadopoulos et al., 2010). The question of why green marketing has increased in importance is quite simple and relies on the fact that firms face limited natural resources, and thus they must develop new or alternative ways for satisfying unlimited wants of them and these of consumers. Several studies show that marketing goods of firms with environmental characteristics will have a competitive advantage over firms marketing non environmentally responsible alternatives.

On the other hand, clustering with environmental characteristics, often offer more effective and efficient solutions through stronger companies allegiance to ecological programmes and quicker implementation of environmental friendly technologies, because executives ‘own’ the environmental goals (Porter and Van der Linde, 1995). Businesses which recognize that ecology can lead to competitive advantages are benefitted from cooperation as well. Clustering with green characteristics, can pre-empt attacks from several groups, the government and the media, offers ecological expertise, and corporate programmes’ greater credibility than self-developed policies. Moreover, promotions surrounding such green alliances enhance corporate images. Good environmental policies can both advance ecological interests and motivate efficient, cost-saving innovations, integrating ecology into the firm’s strategy to either lower costs or create a differentiation advantage (Trigkas et al., 2011).

2. METHODOLOGY

The aim of the research was the identification of the entrepreneurial marketing strategy of the Greek construction sector, regarding the development and supporting of a sustainable building movement, aiming to the enhancement of sector’s competitiveness and environmental protection. The research was based on the implementation of a specialized research, concerning clusters and sustainable building in Greek market. For the data collection, the method of editing, collecting and processing of specially constructed for the purposes of the study questionnaires was used, according to the basic principles of marketing research, responsibility, transparency, validity, perception and connection to strategy (Gordon and Langmaid, 1988; Tull and Hawkins, 1990; Aaker et al., 2004; Papadopoulos et al., 2010).

The questions that were used, were aiming to originally study the factors of demand, knowledge, willingness and philosophy of the involved stakeholders (scholars, manufacturing industries, suppliers, constructors, research centers, universities, institutes, organizations) concerning the establishment of the sustainable building cluster. Two different questionnaires were created, with some common questions, which were addressed, the one to the enterprises and the other to
the organizations. The time period of questionnaires collection was August 2010. Finally, 33 enterprises and organizations have corresponded, and thus the research sample is considered as enough (>30) for the extraction of reliable conclusions. The data were edited, processed and analyzed through the specialized statistic package SPSSWIN ver 17.0 and all the relative statistical tests were made, such as frequencies, descriptive and crosstabs, independence tests between all variables using the X² criterion, correlation analysis and analysis of variance (t-test), as long as questionnaires content validity and credibility (Norusis, 2007).

3. RESULTS

3.1 Evaluation of the sustainable building demand in Greece.

All of the participating organizations and enterprises to the relative market study that has been conducted, believe that the construction of single “green buildings” could create a general positive “tendency of sustainable building” in Greece too. Simply, several variations exist, concerning the time that the above mentioned “movement” will be developed in a significant level in Greece too, with the existence of a capable number of “green” buildings. The majority of the organizations and enterprises of the research (53.6%) believe that “green” buildings will be able to consecrate in Greece in the next 5-10 years. The most optimistic (29.8%) forecast that this “movement” will be consecrated in the next few years (1-5). The verification concerning the increase or not of the demand for sustainable building internationally during the last years, is that an increase has been observed in a moderate and satisfactory rate. The factors which have been observed to be altered concerning the demand for sustainable building, as well as their alteration rate, are shown in Table 1. These that have been altered in a moderate level are the enhancement of the media’s role, the enhancement of the role of environmental training and the financing of related activities.

Table 1: Alteration rate of sustainable building demand during the last years (ranking 1-7, with 1 = not at all, 4 moderate and 7 in a very high rate)

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>Mean</th>
<th>Std</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancement of the media’s role</td>
<td>4.07</td>
<td>1.44</td>
<td>15.5</td>
</tr>
<tr>
<td>Enhancement of the role of environmental training</td>
<td>4.04</td>
<td>1.46</td>
<td>13.3</td>
</tr>
<tr>
<td>Financing of activities</td>
<td>3.90</td>
<td>1.78</td>
<td>11.2</td>
</tr>
<tr>
<td>Acquisition of experience and know how by the industry in sustainable building subjects</td>
<td>3.73</td>
<td>1.55</td>
<td>13.2</td>
</tr>
<tr>
<td>Development of entrepreneurial opportunities in Greece and abroad</td>
<td>3.63</td>
<td>1.54</td>
<td>12.9</td>
</tr>
<tr>
<td>Enhancement of the “sustainable building” movement</td>
<td>3.60</td>
<td>1.61</td>
<td>12.2</td>
</tr>
<tr>
<td>Number of certified professionals in sustainable building subjects</td>
<td>3.47</td>
<td>1.48</td>
<td>12.8</td>
</tr>
<tr>
<td>Development of corporation schemes in sustainable building subjects</td>
<td>3.41</td>
<td>1.48</td>
<td>12.5</td>
</tr>
<tr>
<td>Number of certification projects in sustainable building subjects</td>
<td>3.32</td>
<td>1.47</td>
<td>12.0</td>
</tr>
<tr>
<td>Acquisition of experience and know how by the consumers in sustainable building subjects</td>
<td>3.03</td>
<td>1.45</td>
<td>11.5</td>
</tr>
<tr>
<td>Number of certified sustainable buildings</td>
<td>2.76</td>
<td>1.60</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Seeking the short-term, mid-term and long-term demand and development of sustainable building in Greek market, it is estimated that the population percentage which will response to the institution of sustainable building will be: in short-term (1-2 years) 4.7%, in mid-term (5 years) 11.3% and in long-term 27.6% per weighted mean. The greater percentage (41.4%) of those questioned estimates that in short-term the 3-5% of Greek households will response. 44.8% estimates that there will be a response in 5 years by the 5-10% of them, while in 10 years there is a great optimism that the response will reach a percentage of 10-20% by mean from the 27.6% of them. Households which are estimated to respond directly to the institution of sustainable building, consists a percentage of 75.9%, these of higher income and only a percentage of 20.7% the smaller and lower income households. This is logical, because during a period of economic crisis someone seeks to ensure his survival and then to be interested for the environment (internal and external) into which he spends his life. By the end of economic crisis which is estimated in the next 3-5 years, sustainable building will expand to all income classes. Accordingly, the economic crisis does not constitute an inhibitory factor for developing sustainable building, at least in a mid and long-term period, since based on the previous result the market – target has been determined.

3.2 The entrepreneurial marketing strategy of sustainable building

For the development of sustainable building in the Greek market, the elements which seem to play a very significant role and should be carefully attended by the Greek firms of the cluster, are: a) the economic situation of the country, b) the nomination of advantages and benefits for the users of “new” products of sustainable building, c) the implementation of appropriate and effective promotion and publicity methods of sustainable building and d) a set of other elements mentioned in the next Figure 3 which worth to be under seriously consideration, by the decision makers that will take the related decisions on the creation and operation of the sustainable building cluster.

The Pearson correlation analysis concerning the alterations of the factors affecting the development of sustainable building in Greek market, has shown that:
• The greater the economic crisis of the country is the more significant is the institution and the implementation of a legislation framework, for the development of sustainable building and the allowance of motivations and investments support by financing programs (Pearson correlation coefficient = 0.677 and 0.428 respectively at a significance level of 0.01, 2-tailed)
• The support of investment by financing programs should be accompanied by the institution and implementation of the legislation framework concerning subjects of sustainable building (Pearson correlation coefficient = 0.533 at a significance level of 0.01, 2-tailed),
• The bigger the competition between enterprises for sustainable building, the more significant factor is the implementation of market studies (Pearson correlation coefficient = 0.617 at a significance level of 0.01, 2-tailed),
• The greater the investments ceiling for sustainable building, the bigger is the entrepreneurial venture (Pearson correlation coefficient = 0.552 at a significance level of 0.01, 2-tailed),
• The more accurate the accounting of sustainable building is, the better and more significant as a factor will be the pricing of the “product” (Pearson correlation coefficient = 0.664 at a significance level of 0.01, 2-tailed) and
• The better the business organization, the more significant is the implementation of market studies concerning sustainable building, as well as, the more appropriate are the information of salesmen for the comparative advantages and the specific characteristics of sustainable building (Pearson correlation coefficient = 0.588 and 0.671 respectively at a significance level of 0.01, 2-tailed).

Unfortunately, Greek enterprises are operating in an environment which creates many serious obstacles for their entrepreneurial activity. The most significant of them, that the present study has shown, seem to be in declining ranking: bureaucracy during the establishment as well as during the operation of enterprises, the intensively observed in nowadays economic uncertainty, the corruption of the system especially concerning public services as well as the operation of the banking system for the allowance of the needed working capital by the enterprises, their financing, as well as the ceiling of interests rates. Especially the factor of economic uncertainty seems to be significantly statistically correlated to the implementation or not of exports by the enterprises which are going to participate in the sustainable building cluster, according to \(X^2\) test (Pearson \(X^2 = 3.027\), Cramer’s \(V = 0.323\) for a significance level greater than 90% Approx. Sig = 0.099). This means that the enterprises that export are directed towards this activity when there is economic instability in their headquarters’ country.

Concerning the development of a sophisticated policy for the effective implementation of sustainable building for the enterprises themselves, the factors that seem to play a fundamental role are: the adoption of innovation strategies and culture (mean = 5.82 with max = 7.0), the leadership and management of new ideas (5.75), technology and information systems (5.75) and the development of new co operations with foreign firms (5.52). A minor role, but at an important level, seem to constitute the easy access to new markets (5.41), the engineering corporations (5.39) and research institutes and the rest academic institutions (5.38). Good leadership and appropriate management of new ideas for the development of sustainable building seems to be significantly statistically correlated to the choice of specialized personnel in their firm (Pearson correlation coefficient = 0.597) and the adoption of innovation strategies and culture (Pearson correlation coefficient = 0.557. Correlation is significant at the 0.01 level (2-tailed). Furthermore, the adoption of innovation strategies and culture is positively correlated to specialized personnel of the sustainable building cluster enterprises (Pearson correlation coefficient = 0.647 at significance level of 0.01).

On the contrary, the main obstacle for the development of a sophisticated policy concerning sustainable building seems to be the absence of appropriate financing sources (mean = 5.79, max = 7), at least until today. In high ranking stand also the factors of: a) the very high cost of the alterations needed and should be made by the enterprises themselves (mean = 4.93), b) the absence of customers response in new products and services (4.82), since until today not any kind of a fundamental promotion towards the public opinion about sustainable building subjects, has been implemented c) the very long period of the necessary investments amortizations (4.81), d) the absence of know how and innovation flows organizations, in the building sector (4.79) and e) the existing weaknesses of the Greek legislation framework (4.75).

A very important parameter for the establishment of the sustainable building cluster is the intension and the attitude of the enterprises and related stakeholders to develop co operations between them. The present research has shown that the sum (100%) of the participants develop such co operations. From the up to date activity of the research participants, it seems that the most important co operations concern these with customers (mean=5.25, max=7.0), with construction companies (5.09) and engineering companies (4.92). Satisfactory seem to be the co operations with governmental or private non profit research institutes (4.55), with R&D enterprises (4.45), as well as with Universities and TEI (4.45). In a moderate rate until today, they develop co operations with other enterprises of the same sector (3.91), as well as with their competitors (3.67). Through the participation of the enterprises and organizations into the sustainable building cluster, co operation between them will be constrainedly developed and their benefits will be multiplied.

In order the enterprises, which are going to participate in the sustainable building cluster, to achieve their entrepreneurial vision, they have set targets that seem to be fundamental to the development of their environmental strategy. Answers show, that greater attention is given on the development of new innovative products, on the improvement of products quality, on the conformity to the environmental legislation and on the improvement of the firm’s image.
Furthermore, the reduction of pollutants and wastes, the reduction of the production cost, implementation of process innovations, the improvement of knowledge regarding environmental friendly technologies and the entrance in new profitable markets, seem to also play a fundamental role. Regarding enterprises that have ambitions and see in a positive way their entrance in international markets in a short or long term, they believe that they could improve their competitiveness if they focus on process and products innovations, if they give a greater importance on their communication sector and if suitable funding by governmental organizations exists. (Table 4).

Table 4: Ways through which, the sustainable building cluster’s enterprises, will become more competitive in an international level.

<table>
<thead>
<tr>
<th>Ways</th>
<th>Implementation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovations</td>
<td>5,66</td>
</tr>
<tr>
<td>Enhancement of communication</td>
<td>5,43</td>
</tr>
<tr>
<td>Governmental funding</td>
<td>5,17</td>
</tr>
<tr>
<td>Quality control of products/services</td>
<td>5,17</td>
</tr>
<tr>
<td>Cheaper raw materials</td>
<td>5,17</td>
</tr>
<tr>
<td>Renewal of technological equipment</td>
<td>4,90</td>
</tr>
<tr>
<td>Expertise personnel</td>
<td>4,83</td>
</tr>
</tbody>
</table>

A very important parameter of the present research constitutes the way through which the relative message of sustainable building will be able to reach Greek market and who are going to be responsible for that to happen. The study has shown that the major role should be undertaken by the Greek government, by the media as well as by the construction sector itself and mainly by the architectures and civil engineers. The research has also highlighted that specific communication activities should also be undertaken by the stakeholders such as the organisation of relative conferences, commercials and use of internet. Finally, regarding the long term prediction of the sustainable building cluster’s development, it seems to pass mainly through the promotion of the participating enterprises development, the attraction and participation of new members and capable and charismatic personnel. Some of the future steps should also focus on the creation of motivations for foreign direct investments, the establishment of the cluster’s fame and the creation of spin-offs.

5. CONCLUSIONS – PROPOSALS

The building sector which includes many other sectors and subsectors holds a very high and dynamic position in Greek economy. Its problems are well known, because of the global financial crisis, but also because of the Greek economic crisis. The increase of competitiveness and environmental protection constitute basic priorities for the European Union as well as for Greece. Best practices around the world should be potentially fulfilled at the highest point. The idea that the society should live in an environment that is designed and operates incorporating energy efficiency, water saving, waste minimization, pollution prevention, increase of the efficiency of the sources in the materials that are used but also ensuring a better quality of life inside buildings based on the principals of “green economy”, has already grown. Sustainable building with its multiple benefits for enterprises and the stakeholders, cooperating organizations and consumers that have been pointed by the analysis, constitute a direct necessity and the expediency is given.

Greek enterprises estimate that the tendency of “green” buildings is coming to Greece too, the majority of them estimate that in the next 5 years this will be institutionalized and they are getting prepared for this. For the development of sustainable building in Greece too, the factors that have been detected to play the most significant role and should be especially attended by the Greek enterprises of the cluster, seem to be: the economic situation of the country, the highlighting of advantages and benefits for the users of “new” products of sustainable building, the implementation of appropriate and effective promotion and publicity methods of sustainable building and the support of investments from financing programs.

The highlighting of appropriate strategies that the cluster’s enterprises will implement, in order to pass the message of “sustainable building” to the Greek consumers, should constitute the main point for continuing this research and connecting its results with the present study.

Best practices and case studies could also be investigated and detected, in order to constitute roadmaps for the survival and development of the sustainable building cluster enterprises. Through this kind of research we will be able to detect several key points of sustainable building and of successful business activity in the frameworks of the cluster such as, financing capabilities and viability of a cluster, staff training in subjects of sustainable building as well as of the citizens, protection of the household income through money saving and development of new entrepreneurial opportunities.

References


