

# Journal of Regional & Socio-Economic Issues

Volume 4, Issue 2, June 2014

ISSN 2049-1409

## Table of Contents

**The Contribution of Public-Private Partnerships in the Process of Investment Promotion of Local Development (by Georgia Tsakni, George Polychronopoulos, Alexandros G. Sahinidis)**

**Financial Situation Study of a Company by Means of Du Pont Analysis and the Relation ROE– Capital Structure (by Antoneta Polo and Vjollca Karapici)**

**Work Participatory Regimes in the Greek Archipelago: Current Challenges at a time of financial crisis (by George O. Tsobanoglou and Eirini Ioanna Vlachopoulou)**

**The development of Religious Tourism: The case of Chios in Greece (by Panoraia Poulaki, Maria Ntoumi and Dimitrios Lagos)**

**The social representations of immigrants held by Greek primary school pupils in the North Aegean Region (by Panagiotis Giavrimis)**

**Book Review**

**Call for Conference**

**Call for Papers**

**Instructions to Authors**

# **JOURNAL OF REGIONAL SOCIO- ECONOMIC ISSUES (JRSEI)**

**Journal of Regional & Socio-Economic Issues (Print) ISSN 2049-1395**

**Journal of Regional & Socio-Economic Issues (Online) ISSN 2049-1409**

# JOURNAL OF REGIONAL SOCIO-ECONOMIC ISSUES (JRSEI)

**ISSN No. 2049-1409**

**Aims of the Journal:** Journal of Regional Socio-Economic Issues (JRSEI) is an international multidisciplinary refereed journal the purpose of which is to present papers manuscripts linked to all aspects of regional socio-economic and business and related issues. The views expressed in this journal are the personal views of the authors and do not necessarily reflect the views of JRSEI journal. The journal invites contributions from both academic and industry scholars. Electronic submissions are highly encouraged (mail to: [gkorres@geo.aegean.gr](mailto:gkorres@geo.aegean.gr)).

## Chief-Editor

- Prof. Dr. George M. Korres: **Professor University of the Aegean, School of Social Sciences, Department of Geography, [gkorres@hol.gr](mailto:gkorres@hol.gr), [gkorres@geo.aegean.gr](mailto:gkorres@geo.aegean.gr)**

## Editorial Board (alphabetical order)

- **Prof. Dr. Elias G. Carayannis:** Professor School of Business, George Washington University, Washington, USA, [carave@otenet.gr](mailto:carave@otenet.gr); [carave@gwu.edu](mailto:carave@gwu.edu)
- **Prof. Dr. Christos Frangos,** Professor of Statistics and Business Methods, Technological Institute of Athens, [cfragos@teiath.gr](mailto:cfragos@teiath.gr)
- **Prof. Dr. George Halkos,** Professor Department of Economics, University of Thessaly, [halkos@uth.gr](mailto:halkos@uth.gr)
- **Prof. Dr. Hanna Dudek:** Professor Warsaw University of Life Sciences, [hanna.dudek@sggw.pl](mailto:hanna.dudek@sggw.pl)
- **Prof. Dr. Richard Harris:** Professor Durham University, [r.i.d.harris@durham.ac.uk](mailto:r.i.d.harris@durham.ac.uk)
- **Assoc. Prof. Dr. George Gkantzas:** Associate Professor in Cultural Management, New Technology University of the Aegean, [gkantzas@aegean.gr](mailto:gkantzas@aegean.gr)
- **Prof. Dr. Christos Kitsos,** Prof. Technological Institute of Athens, [xkitsos@teiath.gr](mailto:xkitsos@teiath.gr)
- **Dr. Aikaterini Kokkinou:** University of Glasgow, Department of Economics United Kingdom, [katerinakokkinou@hotmail.com](mailto:katerinakokkinou@hotmail.com)
- **Prof. Dr. Elias A. Kourliouros:** Professor Department of Geography, University of the Aegean, [e.kourliouros@aegean.gr](mailto:e.kourliouros@aegean.gr); [e.kourliouros@gmail.com](mailto:e.kourliouros@gmail.com)
- **Assoc. Prof. Dr. Charalambos Louca:** Associate Professor & Head of Business Department, Director of Research Department, [charalambos.louca@ac.ac.cy](mailto:charalambos.louca@ac.ac.cy)
- **Prof. Dr. Emmanuel Marmaras:** Professor Technical University of Crete, [em.marmaras@gmail.com](mailto:em.marmaras@gmail.com); [em.marmaras@arch.tuc.gr](mailto:em.marmaras@arch.tuc.gr);
- **Assoc. Prof. Dr. Maria Michailidis:** Associate Prof. & Dean, Department of Management & MIS, University of Nicosia, [michailidis.m@unic.ac.cy](mailto:michailidis.m@unic.ac.cy)
- **Prof. Dr. Photis Nanopoulos:** Former Director of Eurostat, [phn@otenet.gr](mailto:phn@otenet.gr)
- **Dr. Pablo Ruiz-Nápoles:** Faculty of Economics, Universidad Nacional Autonoma de Mexico, [ruizna@servidor.unam.mx](mailto:ruizna@servidor.unam.mx)
- **Prof. Dr. George Polychronopoulos,** Professor and Dean School of Economics and Business, Technological Institute of Athens, [gpolyc@teiath.gr](mailto:gpolyc@teiath.gr)
- **Prof. Dr. Kiran Prasad,** Professor Sri Padmavati Mahila University [kiranrn\\_prasad@hotmail.com](mailto:kiranrn_prasad@hotmail.com); [kiranrn.prasad@gmail.com](mailto:kiranrn.prasad@gmail.com);
- **Professor Paris Tsartas, Rector,** University of the Aegean, E-mail: [rector@aegean.gr](mailto:rector@aegean.gr)
- **Assoc. Prof. Dr. George O. Tsobanoglou:** Associate Prof. University of the Aegean, Department of Sociology, [g.tsobanoglou@soc.aegean.gr](mailto:g.tsobanoglou@soc.aegean.gr)
- **Prof. Dr. George Zestos:** Christopher Newport University, [gzestos@cnu.edu](mailto:gzestos@cnu.edu)

## **Table of Contents**

Editorial Board	3
Table of Contents	4
Paper 1: The Contribution of Public-Private Partnerships in the Process of Investment Promotion of Local Development (by Georgia Tsakni, George Polychronopoulos, Alexandros G. Sahinidis)	5
Paper 2: Financial Situation Study of a Company by Means of Du Pont Analysis and the Relation ROE – Capital Structure (by Antoneta Polo and Vjollca Karapici)	17
Paper 3: Work Participatory Regimes in the Greek Archipelago: Current Challenges at a time of financial crisis (by George O. Tsobanoglou and Eirini Ioanna Vlachopoulou)	31
Paper 4: The development of Religious Tourism: The case of Chios in Greece (by Panoraia Poulaki, Maria Ntoumi and Dimitrios Lagos)	45
Paper 5: The social representations of immigrants held by Greek primary school pupils in the North Aegean Region (by Panagiotis Giavrimis)	71
Book Review	83
Call for Conference	84
Call for Papers	85
Instructions to Authors	86

## **The Contribution of Public-Private Partnerships in the Process of Investment Promotion of Local Development**

### **Abstract:**

This article surveys the contribution of Public-Private Partnerships (PPP) to the investment attraction of local government organizations. The analysis focuses primarily on the advantages of the institution, as an alternative, when seeking funds for projects primarily undertaken by investment programs for economic development. However, the significance of public-private partnerships is not limited to locating capital. The best possible combinations of capital and manpower are achieved. These aim at the most effective possible management of the basic pillars of economic development, with technical progress leading the way. In addition, by means of a review of the international literature concerning the impact of PPPs on economic development, the significance of the institution as a means of structural reform is highlighted.

**Key Words:** PPPs, Greece, local government organizations

**Georgia Tsakni<sup>1</sup>, George Polychronopoulos<sup>2</sup>, Alexandros G. Sahinidis<sup>3</sup>**

---

<sup>1</sup> Hellenic Quality Assurance and Accreditation Agency

<sup>2</sup> Technological Education Institute, Department Of Business Administration

<sup>3</sup> Technological Education Institute, Department Of Business Administration

**1. Introduction - Chronology of the institution in Europe and Greece**

History indicates that there has always been a degree of cooperation between the public sector and the private sector (Wettenhall 2003, 2005). Public–Private Partnerships (PPP) constitute a significance according to which there is a new language of public management, one intended to include older, established procedures of involvement of private organizations in the delivery of public services. (Linder 1999).

In the early 90's the promotion of the Public Investment Program in the United Kingdom using private funding (Private Finance Initiative) was the starting point for the establishment of the institution of partnerships (Stane and Carroll, 2000), which became common practice in the creation of public infrastructure. Partnerships between public and private sector organizations constitute one of the many forms for the municipal production of services to satisfy the needs and demands of citizens available (Borys & Jemison, 1989; Mackintosh, Jarvis, & Heery, 1994; Mohr & Spekman, 1994). Campbell (2001) suggests that “a PPP project generally involves the design, construction, financing and maintenance of public infrastructure or a public facility by the private sector under a long-term contract”.

In particular, the countries of the European Union, witnessed a spate of partnerships between public and private authorities for the implementation of development infrastructure, such as railways<sup>4</sup>, highways, communication systems, buildings, bridges, etc. (Yescombe, 2007). PPP are regarded as an organization that is positioned in between the public sphere characterized as democracy, citizens and monopoly production and the private sphere, with its price system, owners and competition (Brunsson, 1989; Dahl & Lindblom, 1953; Parker, 1992; Perry & Rainey, 1988).

The leading country, United Kingdom, signed the first major PPP contract in 1996 and then followed various partnerships involving highways, bridges, construction, trains etc. Additionally, important infrastructures were created, both in health and in education through PPP that cover 20% of the projects included in the Public Investment Program. Even if the work that is materialized via PPP projects is covered, there are significant differences in the degree of success (Moustakas 2008).

---

<sup>4</sup> At this point, it should be emphasized that since the 80s in the UK, the government launched its first partnerships with the private sector on projects, but the intensification of the use of the institution **is** placed in the 90s onwards.

Table 1 presents the projects for the period 2003-2008 in the U. K. With the exception of 2004 for the sub-period from 2005 to 2007, there is an intensification of the public-private partnerships in the implementation of investment programs of local government in the United Kingdom, which could be regarded as evidence for a significant contribution to the implementation of development projects. In this context, the quantity of work of institutions of Public Sector depends largely, on the location that it has in the priority axis in policy that is followed by the general government, with reference to all sectors of the economy. Consequently, the retreat of investments of Local Government for certain time period with the use of PPP does not involve abandonment of institution. Continuing the historical retrospection with regard to the “course” of the institution in the European continent, the implementation of PPP projects focused on improving infrastructures, which advocate the creation of conditions for economic growth and development, both at a central and a regional level.

There has been extensive use of PPP’s in Greece in all development projects implemented in period 1995-2004, with characteristic examples the underground, the bridge of junction “Riou Antirriou”, “Egnatia Road” etc.

The release of funds, thus the positive contribution of PPP’s in managing the fiscal stability of the member countries of the European Union, led institutions of European Union to take measures for further promotion of the institution, while in 2003 guidelines for successful partnerships between Public and Private Sector were published (Koumis, 2009).

## **2. Economic development and PPP**

Creating conditions for economic development is a key priority of each economic policy pursued in a country. In this framework, funding, as a process, is structured by sections where their existence refers to developing policies for the implementation of a group of intermediate targets, which are proceeded in order to lead the economy into growth. Particularly, through the stages of this process, which reflects the characteristics of this development model adopted by the economy, the degree of the adjusted policy is distinguished in the macroeconomic environment, both at national and international level.

According to Hodge (2205), public sector “has clearly moved from its traditional stewardship role to a louder policy advocacy role”. Chronic distortions and the periodicity of imbalances that economy presents, in conjunction with the degree that

the economic policy has the appropriate tools of imbalance, delimits both the growth of development and the effectiveness of policy to achieve the principle of consistency in all phases of financial planning.

### **3. The main pillars of development**

Both in Greek and international literature (Samuelson, P.A., W.D., 2000), the development model of an economic system is based on four key pillars: natural resources, human resources, capital formation<sup>5</sup> and technology<sup>6</sup>. Finding the optimal combination of reported growth poles connected to the availability of funds, such as the overall savings of an economy, results from the sum of private and public saving. Private savings depend on disposable income, the level of inflation and consumer preferences. The level of public savings depends on the efficiency of the tax system and fiscal policy followed. The increase in aggregate savings in an economy creates a capital formation, which is formed through investment in the Private and Public Sector. This formation resulting from public and private investment, contributes effectively to the process of the economic development, as it becomes more efficient allocation of human and natural resources in the productive economic system. Moreover, the process of introduction of new technology is enhanced, and as a result, the productivity of human resources increases. It is also important the fact that through domestic savings, economy is financed with own resources investment, and possible dependencies by transnational sources of financing are reduced.

It should be mentioned that the effective management of aggregate savings requires skilled workforce, economic and social organization, availability of natural resources and entrepreneurship. The existence of these factors creates favorable estimates of investment returns and contributes to the process of economic development. There is no doubt of course that investment should have a productive quality, related to the improvement of infrastructure in quantitative and qualitative terms, in order to achieve the expansion of productive capacity of the economy.

According to the aforementioned theoretical objections, the implementation of the Public Investment Program, in conjunction with private investment, both in

---

<sup>5</sup> Refers to capacity building and investment in learning skills of the available workforce in an economy in order to increase labor productivity.

<sup>6</sup> Refers to new patterns of combination and management of key inputs in the productive system. Entrepreneurship falls in technology.

infrastructure field and in the further refinement of the available workplace, expand the productive limits of the economy through the growth of potential output.

### **3.1. The social and economic impact of PPP's**

#### **3.1.1. Impact on Fiscal Policy**

Regarding the emergence of the institution of PPP's in Europe, restrictions on public finances led European governments to seek alternative solutions to promote the Public Investment Program, which would help the releasing funds from the public savings and the borrowing would be avoided. The participation of private capital was an innovative strategy in the process of public investment management, and directly contributed to the reinforcement of financial institutions, such as the tax system, the management of public debt<sup>7</sup> and the deficit (Vavouras and Manolis, 2006). Particularly, the rational allocation of risks, which is the dominant advantage of PPP's, reduced significantly the cost overruns of the operation of wider public sector, acting positively on reduction of basic fiscal aggregates, while low productivity relative to the cost operation of public sector, offset to a significant degree through the transfer of functions<sup>8</sup> to the private sector within the PPP framework. Additionally, the potential use of non-operational public infrastructures by taking the cost of repair and improvement of these private funds and subsequently their use for the provision of services on the government part, contributes to the efficient management of public assets, the rationalization of expenditure and to the financial savings, strengthening the process of fiscal consolidation.

Furthermore, most Member States try to use their financial resources more effectively by becoming more business-like in their day-to-day practices, so as to promote the local economic development process. (Elander, 2002).

#### **3.1.2. The impact on the process of attracting Foreign Direct Investments (FDI)**

Foreign Direct Investment as an economic concept refers to the flow of foreign capital in order to develop investment in productive infrastructure of the domestic economy. Their connection to the basic pillars of economic growth is also important, such as human and natural resources, capital formation and technology. The excellent

---

<sup>7</sup> The public debt includes the debt of a country abroad (i.e. any form of borrowing from other countries), and the debt domestically (i.e. domestic borrowing, debts to citizens and businesses). It constitutes a stock variable, while the public deficit constitutes variable flow.

<sup>8</sup> As regards the obligations of the State to the individual, they depend on the shape of PPP

combination of these variables, achieves the maximum productivity of the economic system contributing significantly to create conditions for economic growth, fact that highlights not only the growth of GDP, but also significant changes in the structure of economy, such as the increase in the relative contribution to GDP sectors of industry and services, the improvement of the quality of life and the improvement of income distribution. Moreover, foreign direct investment is a key factor of the competitiveness increase in an economy of a country. It is understood that the attraction of foreign direct investment constitutes the key priority, an intermediate policy for goals, in order to create positive conditions for growth. It also enhances capital accumulation in an economy, factor that leads to investment increase.

These investments concern the improvement of infrastructure, the education of the available workforce, the use of new technology, research and development (R & D) in all areas of the production system and finally the implementation of new standards of corporate governance. In this framework, it is obvious that foreign direct investment contributes significantly to the upgrading of the productive systems of an economy and therefore to the increase of competitiveness.

From the aforementioned, it is understood that the attraction of foreign direct investment through measures for economic growth, is a key priority to an economy, in order to create conditions for economic growth, related to the creation of the appropriate environment for taking investment actions. In particular, the basic characteristics of an economic environment to attract investment pass from the microscope of macroeconomic stability of basic infrastructures. PPP contribute to the creation of environmental investments and their financing from funds of other economies. The release of funds as indicated in the first field of analysis, positively affects the efficient management of public expenditure, by enhancing the rational allocation of risks in the financial peak and the introduction of new technology standards and contribute to a more qualitative and quantitative improvement of the existing infrastructures. The existence of PPP's strengthens, as an incentive, the attraction of foreign direct investment. Regarding the Greek reality, we could mention two major development projects such as the bridge of Rion Antirion and the Airport "Eleftherios Venizelos".

### **3.1.3. The social impact of PPP's**

The social impact of PPP's is mainly related to the improvement of macroeconomic fundamentals, such as the employment level. Specifically, the implementation of

investment from both domestic private capital and also the potential output growth, due to the expansion of the production system, should be mentioned. In both cases, this leads to a reduction of the natural rate of unemployment due to employment growth, while the increase in labor demand, relative to labor supply creates upward trends in nominal wages, improving significantly the living standards. Through PPP's the advantages of private sector are combined with the social responsibility, environmental awareness and local knowledge of the public sector in an effort to solve problems (Kumar and Prasad, 2004). The government leads "socially organized learning processes" that mobilize the ideas, expertise and money of various societal groups for collective problem solving (Gertler, 2000:34).

The employment reinforcement accompanied by capital investment in learning abilities of the workforce, leads to labor productivity growth with positive impact on the growth process. Therefore it is understood that the adverse social reactions, resulting from the state inability to tackle the unemployment, through the implementation of expansionary fiscal policy, especially in periods of intense economic disruptions, mitigated by providing incentives to the private sector to undertake investment PPP's, are part of the third dimension<sup>9</sup> of economic policy. This dimension refers to the promotion of structural reforms (Hardouvelis, 2007) throughout the structure of an economy, so that the adverse effect on the economic development process from the measures of restrictive fiscal and income policy outweigh the long term benefits of structural reforms, whose developmental nature is documented in both empirical and academic level.

#### **4. The contribution of PPP's in the promotion and implementation of investments of Local Government for period 2005-2010**

In the present chapter using statistical data from the Department of Developmental Planning of the Ministry of Interior, we provide elements with regard to the category of investments made in Greece in the period 2005-2010 from local authorities. Table 2 contains the works of Local Authorities by investment category according to the distinction on the thirteen regions of the country for the period 2005-2010. In table 2

---

<sup>9</sup> The basic tools of an economic policy are the fiscal and monetary policy. However, if a member country in the monetary union, such as Greece, is a member of the currency area of €, the quiver of tools to perform economic policy is severely limited, since the exchange and generally the monetary policy is conducted centrally by the European Central Bank. So the economic policy in national level is bounded in the context of the fiscal and income policy with limited flexibility in periods of strong economic fluctuations and low fiscal performance.

below, we group these projects by region and year. The aim of this presentation is to extract information, on the category investments made by local authorities in Greece, and the evolution of these investments over the five years 2005-2010, because of the deterioration of public finances and the overall negative climate in the monetary area of Euro. In the first report about the fiscal situation of the country imposing restrictive fiscal policy entails curtailments of Public Investment Program. Barlow (1997) mentioned that the local public authorities' without entrepreneurial capacity could have a negative impact on a capacity's development compared to others.

Consequently, a redistribution of investments from Local Government cannot be attributed to the impairment of the contribution of the institution of PPP's to promote investment, but the adverse conditions prevailing in the wider economic environment are inhibitory to the process of creating an independent investment entity.

**Table 1** Table of work [PPP] in the United Kingdom at sector and annual value (2003-2008) in Pounds

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Defense	925	900	654	2674	1000	3291
Education	373	456	749	1495	1514	1613
Health	667	2628	998	3010	1706	520
Local Government, Accommodation	491	62	406	422	570	450
Scotland	209	173	377	1003	1106	395
Northern Ireland	105	60	18	390	382	125
Georgia Ministry of Georgia	145	35	---	421	175	98
Ministry of Internal	138	74	38	---	46	14
Walles	---	82	---	42	17	10
Transport	351	735	1021	150	727	---
Others	57	40	---	---	75	27
<b>TOTAL</b>	<b>3.461</b>	<b>5.245</b>	<b>4.261</b>	<b>9.607</b>	<b>7.318</b>	<b>6.543</b>

*Source: Public Private Finance 2009*

After the presentation of the above tables, it would be interesting to make a brief comment. Specifically, in table 2 we observe that the fourth and seventh category of projects (projects of employment and protection policy) have not performed any work of Local Government in the last five years 2005-2010). The investment interest of local authorities according to data on the thirteen regions of the country, directed ascending projects aimed at the quantity of life and the proper functioning of cities (in the third category of projects were 24 projects, projects of developmental character (in the first category performed 15 projects), environmental projects (in the second category

performed 7 projects), projects in education, sport projects and culture (in the sixth category took place 4 projects) and finally in the fifth category, the category of projects of social protection and solidarity held a project.

**Table 2:** “Work Local authority for period 2005-2010 per region”

Categories of work Regions	1 <sup>st</sup> Category Work of Developmental character	2 <sup>nd</sup> Category Work of environmental character	3 <sup>rd</sup> Category Work quality of life - order operation of cities	4 <sup>th</sup> Category Work of employment	5 <sup>th</sup> Category Work of social protection and solidarity	6 <sup>th</sup> Category work of education of sports and culture	7 <sup>th</sup> Category work of political protection
Athens (1)	-	3	5	-	-	-	-
Central Greece (2)	2	1	-	-	-	-	-
Central Macedonia (3)	3	1	6	-	1	2	-
Crete (4)	-	1	-	-	-	-	-
Eastern Macedonia and Thrace (5)	3	1	3	-	-	-	-
Epirus (6)	-	-	1	-	-	-	-
Ionian Islands (7)	1	-	2	-	-	1	-
Northern Aegean (8)	1	-	2	-	-	-	-
Peloponnese (9)	1	-	-	-	-	-	-
Southern Aegean (10)	1	-	-	-	-	-	-
Thessaly (11)	2	-	3	-	-	1	-
Western Greece (12)	1	-	1	-	-	-	-
Western Macedonia (13)	-	-	1	-	-	-	-

**Table 3:** «Work Local authority per year and region»

Περιφέρειες	2005	2006	2007	2008	2009
Athens (1)	4	3	1	-	-
Central Greece (2)	1	2	-	-	-
Central Macedonia (3)	6	5	1	1	-
Crete (4)	-	1	-	-	-
Eastern Macedonia and Thrace (5)	3	3	-	-	1
Epirus (6)	1	-	-	-	-
Ionian islands (7)	2	2	-	-	-
Southern Aegean (8)	2	-	-	1	-
Peloponnese (9)	-	1	-	-	-
Southern Aegean (10)	-	1	-	-	-
Thessaly (11)	3	2	1	-	-
Western Greece (12)	1	1	-	-	-
Western Macedonia (13)	-	1	-	-	-

## 5. Conclusion

Taking into account the previous analysis regarding the origin of work in the thirteen regions of the country, it shows the following:

- I. Development projects are implemented in regions where there are margins of growth, due to lack of existing infrastructures. It is also noted that these regions, due to limited access of local authorities of these regions in combination with local authorities of the centre, give particular importance to the promotion of investment through processes, creating conditions that promote investment. In particular, the promotion of partnerships constitutes an optimal solution for the promotion of investments, because the responsibility is transferred to the private funding.
- II. Projects related to the improvement of quality of life and the order operation of cities present particular mobility. This phenomenon appears probably due to the fact that all projects within this category shaped PPP's retributive character, which means that an individual acquires an incentive for immediate amortization of invested capital, which is achieved in a relatively short period of time, while reducing significantly the financial risk, because the shape selected PPP does not require the

intermediate stages of implementation of the project of contributing to financing of Local Government, which in the frames of effective management and burdened finances, may fail to respond resulting in increased uncertainty about investment returns on the part of private. Substantially, initial taking financial risks of the owners, enhances the reliability of estimation with the delimitation and the levels of variation of this risk.

III. It is pointed out that this strategy on the part of the individual to assume the financing risk from the outset for all stages of the project to reduce the overall financing risk refers to projects whose use is subject to compensatory fees. Looking at the third table, we observe that during the period 2005-2006 in all local and regional sections of the country have development projects and since 2007 we are entering a recession, which could be attributed primarily to current economic crisis and not to the challenge of PPP's institution in the process to promote investments of Local Government.

## 6. References

- Borys, B., & Jemison, D.B.(1989). Hybrid arrangements as strategic alliances: Theoretical issues in organizational combinations. *Academy of Management Review*, 14, 234-249.
- Barlow, M.(1997). Administrative systems and metropolitan regions. *Environment and Planning C: Government and Policy*, 15, 399-411.
- Brunsson, N. (1989) *The organization of hypocrisy*, New York: John Wiley
- Dahl, R., & Lindblom, C. (1953). *Politics, economics and welfare*. New York: Harper.
- Campbell, G.(2001).Public-Private Partnerships – A Developing Market? Unpublished manuscript.
- Elander I., (2002). Partnerships and Urban Governance, UN-ESCO, pp 191-204. European PPP report 2009 launched by DLA Piper and EPEC Press Release, 15 Dec 2009: [www.dlapiper.com](http://www.dlapiper.com)
- Gertler, Meric S.(2000). Self-determination for Toronto: “What are the Economic Conditions and Do They Exist.” In Toronto: Considering Self Government, ed. Mary W. Rowe. Toronto: Ginger Press.
- Hardouvelis, G. (2007). “Macroeconomic management and the need for structural reforms after entering the monetary union”, Eurobank research, Market and Economy, [www.eurobank.gr/research](http://www.eurobank.gr/research)
- Hodge, G. (2004a). Risks in Public – Private Partnerships: Shifting, Sharing or Shirking? *Asia Pacific Journal of Public Administration*, 157-79.
- Koumis, G. (2009). Cooperation and Partnerships of Local Government with the Private Sector, Athens, National School of Local Government.
- Kumar S., Prasad J.C., (2004). Public – private partnerships in urban infrastructure, *Kerala Calling*, 36-37.
- Linder, S. (1999). Coming to Terms with the Public-Private Partnership: A Grammar of Multiple Meanings. *American Behavioral Scientist* 43(1):35-51.
- Mackintosh, M. Jarvis, R., & Heery, E.(1994). On managing hybrids: Some dilemmas

- in higher education management. *Financial Accountability and Management*, 10, 339-353.
- Mohr, J., & Spekman, R. (1994). Characteristics of partnership success: Partnership attributes, communication behavior, and conflict resolution techniques. *Strategic Management Journal*, 15, 135-152.
- Moustakas, A. (2008). Public-Private Partnerships, Panteion University of Social and Political Science, Library of the University, 24.
- Parker, D. (1992, October). *Ownership, change and improved performance*. Paper presented at the 12<sup>th</sup> Annual International Conference of the Strategic Management Society, London.
- Perry, J., & Rainey, H.G. (1988). The public-private distinction in organization theory: A critique and research strategy, *Academy of Management Review*, 13, 182-201.
- Ramsaroop, P. (2010). PPP economic plan – the knockout punch, *Stabroek news*, April 6, 2010 in Daily, Features.
- Samuelson, P.A., W.D. (2000). "Microeconomics".
- Steane, P. & Carroll P. (2000). Public-Private partnerships, Sectoral Perspectives Public-Private Partnerships. Theory and practice in international perspectives. *Advances in Management and Business Studies*, Roudledge.
- Vavouras, I., Manolis, C. (2006). "Introduction to Macroeconomic Concepts", Papazisis, 195-201.
- Yescombe E.R. (2007). "Public-Private Partnerships: Principles of Policy and Finance", London, Butterworth-Heinemann.
- Wettenhall, R. (2003). The Rhetoric and Reality of Public-Private Partnerships. *Public Organisation Review: A Global Journal* 3: 77-107.

## Financial Situation Study of a Company by Means of Du Pont Analysis and the Relation ROE – Capital Structure

### **Abstract :**

Financial analysis as a means for the realization the basis micro-macro economic researches , enables us that in many cases to draw useful conclusions in relation to business features and via them to be led in business resolving for investments. The structure of the capital is related directly with the financial decisions of a company. This consists in the debt and the used capital to finance the company. Different scientific researchers hold on to analyse the structure of capital trying to determine if there exists an optimal structure of the capital.

One of the essential elements used in the functioning of this idea are the financial raports, which usually are used to measure the company performance. In this study, among others, we'll show that there exists an important connection between the capital structure and ROE.

The actual economic crisis has aroused the concern (anxiety) of the investors, big and small ones, related with their investing activity. Such an unsecurity climate, it is necessary the need of determining the real value of economic units. Of the same importance is that, every economic unit to have clearly known which are the main indicators that lead up to the increase of ROE.As the increasing of ROE is one of the main aims of every company, in this research, modestly, are presented some of the possible factors that lead up to realization of this aim.

**Keywords:** financial analysis, company, financial raport, evaluation process, cumulative indicators, ROE, Du Pont analysis.

**Antoneta Polo<sup>1</sup> and Vjollca Karapici<sup>2</sup>**

---

<sup>1</sup> Department of Economics, “Eqrem Cabej” University, Gjirokaster, Albania, Email: [neta\\_polo@yahoo.com](mailto:neta_polo@yahoo.com)

<sup>2</sup>Department of Accounting, Faculty of Economy, Tirana University, Tirana, Albania. Email: [v\\_karapici@yahoo.com](mailto:v_karapici@yahoo.com)

## **1. Introduction**

Trying to make a connection in the meaning of financial analysis and the aim for which that was conceived, we may say that it is a very important mean in business resolving. It is the information coming out via numerals that makes the financial analysis an important 'manual' in the hands of managers, analysers, business consultants, investors and bankers, in a manner that they to be led in right resolving related to their investing activities, financing activities and generally, for every kind of business operation. The financial situation of the company is analysed by means of a considerable number of reports and indicators, such as analysis by means of absolute indicators, analysis of subtractive indicators, analysis by means of the reports and the analysis by means of cumulative indicators. The disadvantage of some of these analyses is that different indicators have limited informative data, because they only can characterize the given activity of the company. In calculating the above disadvantage, the cumulative indicators are used for the evaluation of the general financial situation. Often the indicators are called as the analytical systems or the models for financial analysis. On one side, the number in increase of the indicators in a model secures a more detailed representation of the economic-financial situation of the company. On the other side, the number in increase of indicators may cause problems when is analysed and evaluated its position. The aim of cumulative indicators is to indicate the general characteristics of the financial and economic health of the company by means of only one number, however, their reporting ability is lower. Indicators are convenient to be used for quick and global comparison of companies and, at the same time, may serve as a basis for further evaluation. Du Pont analysis is one of the most important elements of the cumulative indicators, besides Kralicek Quick Test and Altman Z-Score.

In this study, are analysed accepted views in international rate in relation to the meaning, aim and process of the implementation of the means called financial analysis, and also the personal opinions.

## **2. Methodology and Data**

The purpose of this paper is to describe the relation between the capital structure and ROE. To enable the evaluation of all the economic and financial indicators of a company, we are reposed on the basis of the data we have gathered in 44 companies, during three years, 2010, 2011, 2012. An authentic statistical analysis would give truth to the hypothesis that supposes dependence of ROE from its capital structure of a

company. Firstly, the data we have for 44 companies, must be worked out in such a manner to take out (elicit) two variables with which we develop our statistical and econometric analysis.

As dependent variable we'll take in consideration "ROE" with the 44 values it takes in the companies under analysis. All the ROE values will be expressed in %. As independent variable we'll take in consideration the "capital structure", which in the econometric model we'll build will be presented by the percentage that seizes its own capital in the total of the company sources, which also will have values expressed in %.

Our statistical-econometric analysis we are spreading in the three years for which we have reached to gather data and to build the respective database for the 44 studied companies. This analysis will be done specifically for each year, to reach later in a general conclusion related to the hypotheses put forward by us and their verity.

To take the first step of an analysis that would evaluate the relation existing between the two variables as they are in our case ROE and capital structure, we start with a correlative analysis which would send us in the evaluation of the correlation coefficient that express the relation between these two variables.

The second analysis would be the evaluation of a simple linear regression model (supposed as such by us) with an independent variable, an evaluation based in the data per ROE and the capital structure for the years 2010, 2011, 2012. The evaluation of the simple linear regression equation we'll do by means of the method of smaller squares.

The model mentioned above presented in its classic manner would have the form:

$$ROE = \alpha + \beta * \text{capital structure} + \varepsilon$$

The thing we'll do is the correlative analysis and the evaluation of the three above form equations for each year taken under study, also the verifying of our main hypothesis through some statistical criteria.

### **3. Du Pont Analysis**

A method used widely to analyse the economic-financial activity of an economic unit is the economic-financial reports analysis. Main reports composed are divided in five categories: Liquidity Reports, Financial Leverage and Assets Structure Reports, Performance or Benefits Reports, Activity or Assets Management Reports and Trade Evaluation Reports.

ROE is found in the category of performance reports, which constitutes in a category with special (significant) importance, because the interested about the situation and prospective of a company, focus their attention in this benefit.

ROE is an indicator that is accounted:  $ROE = \frac{\text{Net Income}}{\text{Equity}}$ . From accounting view we can consider as the sum of the yearly profit (return) that is due to every money invested in capital. Investors use this indicator mainly to account (calculate) how much the company uses the increased capital by the portfolios sale and how much it is able to realize profits. ROE also is a precise measurement to create expectances for the future rentability of the company, after the interested (shareholders) will buy (sell) portfolios that had a good (bad) performance of the ROE the past years.

The evaluation of a company performance has a significant importance for administrators on one hand and for the investors and the institutions of credits on the other hand. The most usual method of a company performance evaluation is the analysis by means of reports, which is based in the analysis of their financial situation.

One of the most wellknown means to analyse the benefits of the companies is the Du Pont model. The use of the benefits analysis of their capitals (ROE analysis), by means of Du Pont model, consists in the possibility of benefits prediction<sup>1</sup> and in the analysis of the benefits of its capitals in individual reports<sup>2</sup> by means of modified and extended Du Pont equation.

The aim of part of the study is performance evaluation in a selected number of companies, (a model of 44 companies is selected precisely for this aim) by means of the analysis of efficiency using Du Pont equation and the evaluation of their economic-financial data.

Du Pont model constitutes one of the implemented systems of the reports that is based in individual reports. The report expresses relation between some elements of the balance and the mirror of the outcomes; the use of which constitutes one of the most widespread methods of the financial analysis.

In the 1970-ies the interest is focused, besides the indicator of the assets efficiency, mainly to the indicator of its own capitals efficiency, in the function to the aim of their maximizing which actually is layed as an objective by the companies. Parallely, the new indicator, that constitutes study object, besides previous measurements of efficiency for the profits and the use of fixed assets, is the report of

assets towards their capitals which express financial lever, that's to say, the manner how a company finance its activity.

Du Pont model took this name by Du Pont Corporation that has used this formula since 1920 for banks. Du Pont model analyses a company ROE by decomposing it in three main components: the net profit (return) margin, the assets turnover, and the leverage factor.

In this manner, by making such a deviation, the investors can analyse how efficiently is used the capital, by measuring the return, via profit margin, efficiency of assets use via assets turnover and financial leverage via capital coefficient. To account a company ROE by Du Pont model, we'll multiply the net profit margin with assets turnover and the leverage factor. So, in a summarized manner we can say:

ROE = Net Profit Margin x Assets Turnover x Leverage Factor, or

$$- \text{ROE} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Total assets}} \times \frac{\text{Total assets}}{\text{Equity}} \quad (1)$$

Du Pont Model in its initial form expresses mathematical relation which joins neto margin of profit, a measurement of efficiency according to companies functioning with the aim of cost control and the speed raport of the assets movement, a measurement that constitutes the use of assets, in the indicator of assets efficiency, ROA. Analysis via Du Pont model shows the manner with which are related to each other the above indicators. So, based on Du Pont analysis, which constitutes ROE in three components, may decompose even ROA in a company as following:

ROA = *Net Profit Margin x Assets Turnover* .

$$\text{Or: ROA} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Total assets}} = \frac{\text{Net Income}}{\text{Total assets}} \quad (2)$$

Du Pont model,in its newest form is presented via the enlarged equation as follows:

ROE = ROA x Leverage Factor = *Net profit margin x Assets Turnover x Leverage Factor*

$$\text{Or: ROE} = = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Total assets}} \times \frac{\text{Total assets}}{\text{Equity}} = \frac{\text{Net Income}}{\text{Equity}} \quad (3)$$

Equation (3) expresses its own capital (equity) efficiency in the work of net margin, the assets turnover and the assets raport towards its own capitals. It offers the possibility of the study of the reasons which determine the level of its own capitals efficiency.

Also, this equation may be further transformed taking the following form.

$$\text{ROE} = \frac{\text{Net Income}}{\text{Cost of goods sold}} \times \frac{\text{Cost of goods sold}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Total assets}} \times \frac{\text{Total assets}}{\text{Equity}} \quad (4)$$

The raport CGS/Sales constitutes the opposite of the expenses productivity over the sales costs (that pass the sales cost). The indicator of the assets turnover express the level of assets use of a company.

Analysis bazed in Du Pont model holds in the possibility of pulling out statistical measurements ( minimal, 25% average, 75% maximum) of the above indicators in the sample integral. From these, may be done the selection of standards which will be used as measurements for evaluating companies. Parallelly, the presentation of indicator that determine the level of the efficiency indicator of its own capitals, my means of the use of correlation coefficients and the building of respective diagrams (charts), forms the possibility to pick out companies of sample which may constitute good practical examples for the other companies of this sample.

In our research are taken into consideration 44 companies, average and small, for a three years period, which constitute the sample. Pulled out indicators by the analysis of financial calculators of this sample, will serve for the confirmation of the hypothesis, by which, exists a relation between the capital structure and the return on Equity (ROE).

**Table 1: Return on Equity in the selected sample 2010-2012.**

<b>2010</b>	<b>NP/CGS</b>	<b>CGS/S</b>	<b>AT</b>	<b>A/E</b>	<b>ROA</b>	<b>NPM</b>	<b>ROE</b>
Min	1,31%	68,95%	0,17	1,01	0,46%	1,23%	1,19%
(25%)	3,18%	90,25%	0,62	2,29	3,54%	3,07%	10,79%
Average 50%	5,07 %	93,63%	1,14	3,94	5,26%	4,81%	27,56%
75%	7,34%	95,76%	1,9	6,89	8,12%	6,71%	37,62%
Max	73,28%	105,91%	4,42	21,76	33,04%	50,53%	79,51%
Average	7,63%	91,67%	1,50	5,13	7,79%	6,46%	30,51%
<b>2011</b>	<b>NP/CGS</b>	<b>CGS/S</b>	<b>AT</b>	<b>A/E</b>	<b>ROA</b>	<b>NPM</b>	<b>ROE</b>
Min	-15,58%	42,9%	0,21	1,01	-7,58%	-17,14%	-53,34%
(25%)	3,18%	91,92%	0,61	1,7	3,63%	3,04%	11,32%
Average 50%	5,07%	94,29%	1,2	4,23	6,12%	4,81%	25,65%
75%	7,86%	95,70%	1,6	6,89	11,23%	7,16%	37,63%
Max	118%	110,04%	5,67	11,8	30,23%	50,63%	93,52%
Average	9,72%	91,28%	1,57	4,78	7,87%	6,94%	28,1%
<b>2012</b>	<b>NP/CGS</b>	<b>CGS/S</b>	<b>AT</b>	<b>A/E</b>	<b>ROA</b>	<b>NPM</b>	<b>ROE</b>
Min	-18,7%	70,8%	0,14	1,00	-21,5%	-23,83%	-47%
(25%)	3,04%	89,94%	0,48	1,82	1,71%	2,94%	6,44%
Average 50%	5,27%	92,99%	0,99	3,59	4,57%	4,92%	22,14%
75%	8,30%	96,1%	1,93	5,68	8,88%	7,37%	36,8%
Max	44,1%	127,4%	3,7	12,1	21,8%	31,2%	78,2%
Average	6,51%	92,15%	1,27	4,26	6,05%	5,5%	23,7%

Where, NP- net profit, CGS - cost of goods sold, S- sales, AT- asset turnover (sales/ total assets), A/E ( assets/equity), NPM – Net profit margin,(NP/S), ROA- return on assets, ROE – return on equity.

Results of the analysis in accordance with further analysis of Du Pont equation, are presented in Table 1. Based on these results, in 2010, for half of companies taken under analysis, ROE vacillates from 1,19% to 27,56%, while for the others reaches to 79,51%. During 2011, for half of companies ROE vacillates from -53,34% to 25,65%, while for the others reaches to 93,52%. During 2012, for half of companies ROE vacillates from -47% to 22,14%, while for the others reaches to 78,2%. The study in time of the ROE evolution, in 2010-2012 period, based in statistical measurements, pulled out for integral of companies for each year, in essence is referred to the research of the change of net profit margin, assets turnover and the raport of assets with its own equity, which differ in a considerable manner.

In the period it is studied, based in statistical measurements pulled out, for the integral of companies every year, the indicator value of the assets turnover, in relation to the value of net profit margin, is expressed also with the ROA value. This indicator, allows comparison of the efficiency of the company with the efficiency of other companies in the same level of risk.

Correlation between ROE and the net profit margin, for the 2010 sample (0,36), as well for the year 2011 (0,33) and for the year 2012 (0,47) is positive and statistically important datum that expresses participation of net profit margin in configuration of ROE.

Correlation between CGS/S and the net profit margin, for selected economic units of 2010, (0,03) as well for those of 2011, (-0,88) and 2012, (-0,87) is negative, and as result without influence in ROE. Participation of the indicator of the asset turnover in configuration of ROE is positive, a little lower in relation with the net profit margin, but statistically important for correlation coefficients (0,28) for 2010, (0,33) for 2011 and (0,37) for 2012.

Correlation between A/E raport and ROE for economic units of 2010 (0,48) as well for those of 2011 (0,34) and those of 2012 (0,45) is a positive fact that indicates the participation of A/E in creating the net profit margin. If ROE increases as result of the increase of the net profit margin or of assets turnover, this is very positive for economic unit. If ROE increases as result of the increase of the value of A/E raport, this complicates the problem. In accordance with the results of the study, evolution of ROE during 2010-2012, on the basis of statistical measurements taken out for companies integral yearly, it comes as the result of the change of the net profit margin, of the asset turnover and of A/E raport (which is not considered as much profitable). Also, during a

taken period under study, participation of net profit margin in the configuration of ROE, is greater in relation with the indicator of the asset turnover. As for configuration of the greater net profit margin, it is the participation of the cost efficiency in relation with CGS/S raport.

The policy for performance improvement of ROE for companies that present low performance of cost efficiency, must be based in measures aiming the increase of cost efficiency, example, decreasing of sales cost. Besides, companies that have absences in the indicator of the asset turnover must require the quantity improvement, or by increasing the amount of sales, or by decreasing assets (example decreasing inventories, assets of sales that present lower efficiency as well by means of recomposition of credits policy).

#### **4. Data Analysis and Results**

Based in enormous theories mentioned and used in home or foreign literature, is mentioned often as a fact that the value of ROE changes from one company to the other also by the fact that in them is used a different structure of financing sources. Based in those theories treated earlier, we have held from the start of this study one of the our most important hypothesis: there egzists an important relation between the capital structure expressed in percentage that occupies the capital itself in the total of company sources, influences negatively in ROE value, in other words, as greater is the part of its own capital in the company sources, that lower is expected to be ROE. This analysis will be done specifically for each year, to reach later in a general conclusion related to the put forward hipoteses by us and their veracity.

Based on the data we have gathered and later transformed for all 44 companies in the years 2010, 2011, 2012 as well using as an EXCEL computer program with its package of the data analysis, we arrived to evaluate the correlation existing between ROE value and the capital structure in %. As seen in tables nr. 4, 6, 8, this value has resulted to be equal to respectively -0,38; -0,37; and -0,45, for each of the years studied, a thing that makes us understand that really there exists a negative relation between ROE and the structure of company capital. It's exactly the sign (-) that indicates this fact as well the values of correlation coefficients for every of the studied years.

The second analysis will start by means of evaluation of the above put forward economic model, where as data basis will serve once again the ROE values and the structure of capital expressed in % for each of the three studied years. By using the

smaller squares method implemented via Excel computer program, Data Analysis-regression, we have reached in the evaluation of three equations presented in tables 3, 5, 7. Presented equation in its classic form for each year, 2010, 2011, 2012 we'll present as down:

$$\text{ROE} = 0.41 - 0.38 * \text{capital structure}, (2010)$$

$$\text{ROE} = 0.40 - 0.33 * \text{capital structure}, (2011)$$

$$\text{ROE} = 0.39 - 0.42 * \text{capital structure}, (2012)$$

If we'd analyse the first equation for the year 2010, a thing that would serve at the same time for the other two years, we'd understand the negative influence that has the increased percentage of its own capital in ROE value. For each 1% increase of the capital in the total of the company sources, ROE decreases with 0,38 % (for 2010).

The same interpretation might be done also for equations evaluated on the basis of the other two years data and in progress.

In the first sight the evaluated equation leaves us understand that really exists a relation or negative dependence of ROE from the capital structure, but as the evaluation is done on the basis of data taken out from the selection and not the population, then it's our duty to evaluate really if exists this dependence. To make possible this verification we would certificate in statistical manner even the hypothesis we have put forward, we're based in the results presented in ANOVA tables 3, 5, 7. Checking the significance of relation that would make possible evaluation of the relation importance and for all the population would be done by means of verifying the second hypothesis veracity among two following hypotheses:

$$H_0: \beta = 0$$

$$H_1: \beta \neq 0$$

where  $\beta$  expresses the population coefficient near the independent variable, which in our case is the capital on %. To us it is more important that the value of this coefficient to be different from zero, because only in this manner the change of the capital structure may have effect in changing of ROE value.

Statistical evaluation of the importance of this coefficient will verify at the same time also the hypothesis we have put forward at the beginning of this study. To evaluate its importance and of the regression equation in general, we'll be based in two values, **F** and **t**, of the two statistical criteria we mentioned before. As the equation we have built is linear with an independent variable, the control via statistical criteria **F** (Fisher), and **t** (student's spread) also result in the same conclusion.

Begin analyzing the results presented in Table ANOVA for each year starting from 2010.

Comparing the significance of criteria  $F=7,145922$ , which is equal to **0,010654** we notice that it is lower than the important level 0,025, a thing that makes us evaluate as important all regression that we just have evaluated. As this regression is simple linear, so with an independent variable, the same we can evaluate even by means of the criteria  $t = -2,67319$ , the value of which is at the same time **0,010654**, and lower than 0,025. By this result we conclude that accept as verity H1, which evaluates as different from zero the coefficient near the independent variable capital structure, which is the hypothesis we've supposed in the beginning, that evaluates as important the % of this capital structure in the ROE value.

**Table nr.3**  
SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0,381316
R Square	0,145402
Adjusted R Square	0,125055
Standard Error	0,238954
Observations	44

ANOVA								
	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	0,408025	0,408025	<b>7,145922</b>	<b>0,010654</b>			
Residual	42	2,39816	0,057099					
Total	43	2,806185						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0,415493	0,059886	6,938095	1,78E-08	0,294639	0,5363	0,294	0,536
Capital structure	-0,38389	0,143609	<b>-2,67319</b>	<b>0,010654</b>	-0,67371	0,0940	0,673	0,094
						8	71	08

**Table nr.4**

	<i>Capital structure</i>	<i>ROE</i>
Capital structure	1	
ROE	<b>-0,38132</b>	1

For the year 2011: Comparing the significance of the criteria  $F=6.880012$ , which is equal to **0.012095** we notice that it is lower than the importance level 0.025, a thing that

makes us evaluate as important all regression that we've just evaluated. As this regression is simple linear, so with an independent variable, the same thing we can evaluate even by means of criteria  $t=-2.62298$ , the value of which is at the same time **0.012095**, and lower than 0,025. By this result we conclude that accept as verity H1, which evaluates as different from zero the coefficient near the independent variable capital structure, which is the hypothesis we've supposed in the beginning, that evaluates as important the % of this capital structure in the ROE value.

**Table nr. 5**

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.375171
R Square	0.140753
Adjusted R Square	0.120295
Standard Error	0.243562
Observations	44

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.408139	0.408139	<b>6.880012</b>	<b>0.012095</b>
Residual	42	2.491544	0.059322		
Total	43	2.899684			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.406834	0.060404	6.735211	3.48E-08	0.284934	0.528735	0.284934	0.528735
Capital structure	-0.33142	0.126354	<b>-2.62298</b>	<b>0.012095</b>	-0.58641	-0.07643	-0.58641	-0.07643

**Tabela nr. 6**

	<i>Capital structure</i>	<i>ROE</i>
Capital structure	1	
ROE	<b>-0.37517</b>	1

And lastly, for the year 2012: Comparing the significance of the criteria  $F=11,03885$ , which is equal to **0,001856** we notice that it is lower than the importance level 0.025, a thing that makes us evaluate as important all regression that we've just evaluated. As this regression is simple linear, so with an independent variable, the same thing we can evaluate even by means of criteria  $t=-3,32248$ , the value of which is at the same time, **0,001856** and lower than 0,025. By this result we conclude that accept as verity H1,

which evaluates as different from zero the coefficient near the independent variable capital structure, which is the hypothesis we've supposed in the beginning, that evaluates as important the % of this capital structure in the ROE value.

**Table nr. 7****SUMMARY OUTPUT**

<i>Regression Statistics</i>	
Multiple R	0,45621
	0,20812
R Square	8
Adjusted R	0,18927
Square	3
Standard	0,21966
Error	7
Observations	44

**ANOVA**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	0,532664	0,532664	<b>11,03885</b>	<b>0,001856</b>			
Residual	42	2,026651	0,048254					
Total	43	2,559315						

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0,395495	0,057968	6,822658	2,61E-08	0,278511	0,512479	0,278511	0,512479
Capital structure	-0,42005	0,126428	<b>-3,32248</b>	<b>0,001856</b>	-0,6752	0,16491	-0,6752	0,16491

**Table nr.8.**

	<i>Capital structure</i>	<i>ROE</i>
Capital structure	1	
ROE	<b>-0,45621</b>	1

The analysis of the two above criteria for each of the three observed years, verifies as real hypothesis one, that points the fact that the value of coefficient near the independent variable for population is different from zero. Also, it verifies at the same time the established hypothesis at the beginning of the research, % of its own capital is an important factor that influences negatively in the ROE of a company.

## 5. Conclusions

This study presents the results of implementation of a further research of the Du Pont modified equation in a number of selected companies during the years 2010-2012, aiming, evaluation of their economic-financial performance.

Du pont modified equation that is implemented, has the possibility of pointing the importance of the cost efficiency, of the indicators CGS/S, assets turnover and A/E in creation and configuration of ROE.

The results of this study have relation with the pulling out of statistical measurements of the indicators that give form to companies ROE taken under analysis. Out of these values are selected the values of the third inset of indicators, in a manner to be used as standard for the evaluation of economic-financial performance of the companies, as well for the evaluation of the possibilities to invest.

As well, this study, via a detailed econometric analysis, arrives to pull out a negative relation between ROE and its own capital in the sources integral.

Naturally, the methods and techniques of financial analysis, can not be considered as actual aims. The simply are simple financial means, which if interpreted in a mechanic manner, may result in negative conclusions. As result, this may have a negative influence in some categories of financial and accounting information users. Financial analyst may be encouraged to account a very high number of financial indicators and the return norm, which may complicate the financial diagnosis and increase the difficulty of required interpretations, in an unjustified manner.

As result, an efficient and important research, seen from all the views, may be done only if the proposed aim is determined carefully and if the analysis means used are selected cleverly.

## 6. References

- Abor, J. (2005), "The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana", *Journal of Risk Finance*, Vol. 6 pp.438-47.
- Anderson, K. & McAdam, R. "A critique of benchmarking and performance measurement. Lead or lag?". *Benchmarking: An International Journal*, Vol. 11, No 5 (2004) 465-483
- Berger, A., Bonaccorsi di Patti, E. (2006), "Capital structure and firm performance: a new approach to testing agency theory and an application to the banking industry", *Journal of Banking and Finance*, Vol. 30 pp.1065-102.
- Blumenthal, Robin G. 'Tis the gift to be simple: Why the 80-year-old Du Pont model still has fans, *CFO Magazine*, January, 1998, pp. 1-3.
- Booth, L., Aivazian, V., Hunt, A., Maksimovic, D. (2001), "Capital structure in developing countries", *Journal of Finance*, Vol. 56 pp.87-130.

- Burson, Robert, Tools you can use for improved ratio analysis, San Diego Business Journal, 12/07/98, Vol. 19, Issue 49, pp. 19-23.
- Eldomiaty, T. (2007), "Determinants of corporate capital structure: evidence from an emerging economy", *International Journal of Commerce and Management*, Vol. 17 pp.25-43.
- Fairfield, P.M. & Yohn, T.L. "Using asset turnover and profit margin to forecast changes in profitability". *Review of Accounting Studies*, Vol. 6, No 4 (2001) 371-385
- Kester, W. (1986), "Capital and ownership structure: a comparison of United States and Japanese manufacturing corporations", *Financial Management*, Vol. 15 pp.5-16.
- Kyereboah-Coleman, A. (2007), "The impact of capital structure on the performance of microfinance institutions", *Journal of Risk Finance*, Vol. 8 pp.56-71
- Liesz, T. J. "Really modified DuPont analysis: Five ways to improve return on equity", (2002), available on line at <http://www.sbaer.uca.edu/research/sbida/2002/Papers/19.pdf>
- Nissim, D. & Penman, S.H. "Ratio analysis and equity valuation: From research to practice". *Review of Accounting Studies* Vol. 6, (2001) 109-154
- Welch, I. (2004), "Capital structure and stock returns", *Journal of Political Economy*, Vol. 112 pp.106-31
- Won, G.-H. "Electric power industry restructuring and ROE: The case of Korea Electric Power Corporation". *Energy Policy*, Vol. 35, (2007) 5080-5090
- Zeitun, R., Tian, G. (2007), "Capital structure and corporate performance: evidence from Jordan", *Australasian Accounting Business and Finance Journal*, Vol. 1 pp.40-53.
- InvestorWords.com, Du Pont Analysis Definition, Available from URL <[http://www.investorwords.com/6496/Du\\_Pont\\_Analysis.html](http://www.investorwords.com/6496/Du_Pont_Analysis.html)>, [retrieved: August, 2012].
- The Manage Mentor, Finance – DuPont Analysis, Available from URL <<http://www.themanagementor.com/EnlightenmentorAreas/finance/CFA/DUPontAnalysis.html>> [retrieved: August, 2012].
- K. Bernhardt, Dupont Financial Analysis - Easy Calculator, Available from URL <<http://cdp.wisc.edu/wk1/DuPont%20EasyCalc.xls>> [retrieved: August, 2012].

## **Work Participatory Regimes in the Greek Archipelago: Current Challenges at a time of financial crisis.**

### **Abstract:**

The European Union recognises that islands suffer from disadvantaging external natural and economic circumstances. As the need for public participation in decision-making increases, in order to address economic and social cohesion issues, both national and supranational authorities should take action to reinforce community involvement in policy. This research, using information from case studies from Greek islands, investigates the obstacles in promoting public participation in insular areas from a European perspective. The study was based on qualitative research methods and an extensive literature review. In areas with low cohesion, attempts for participation failed. In other areas, where social cohesion was maintained, there was mistrust towards local authorities but the members of the community were eager to collaborate with the researcher to promote participation. It was evident that there is urgency for adoption of national and European policies focused on the needs of the insular communities, with respect to their unique circumstances.

**Key words:** Participation, insularity, communities.

**George O. Tsobanoglou<sup>1</sup> and Eirini Ioanna Vlachopoulou<sup>2</sup>**

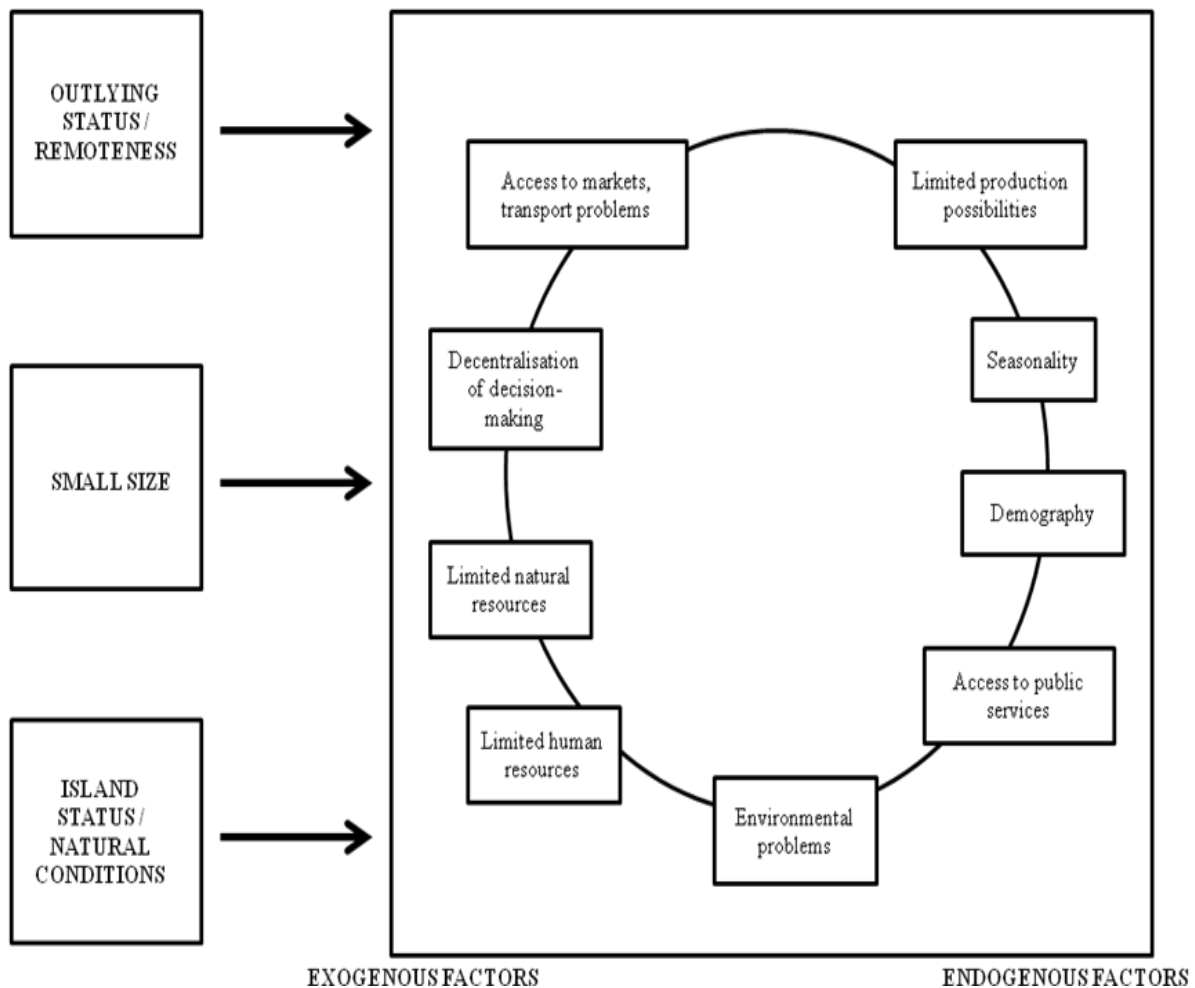
---

<sup>1</sup> ERGAXIA Sociology of Labour Laboratory, Sociology Department, University of the Aegean, Mytiline, Greece, Email: g.tsobanoglou@soc.aegean.gr,

<sup>2</sup> ERGAXIA Sociology of Labour Academic Laboratory, Department of Sociology, University of the Aegean & Department of Risk Management and Environmental Sciences, School of Environment and Information Sciences, Yokohama National University, Email: socd12054@soc.aegean.gr

**1. Introduction**

The European Union (EU) is characterised by a unique, yet uneven settlement pattern (European Commission, 2008; ESPON and the University of the Aegean, 2009). The dominant model relies on economies of scale, accumulation and high accessibility of resources (ESPON and the University of the Aegean, 2009). Many peripheral regions suffer from severe and permanent territorial isolation, while the European Union recognises the islands as the most vulnerable regions (Treaty of Lisbon, 2007). The average living standards for the residents of the islands is 72% of the EU average (Planistat Europe and Bradley Dunbar Associates Ltd, 2003), and human activities are directly related to the natural environment of the area they takes place (Fig. 1) (Planistat Europe and Bradley Dunbar Associates Ltd, 2003).



**Figure 1:** Natural factors affecting human activities.  
 Source: Planistat Europe and Bradley Dunbar Associates Ltd, 2003

As a result, the island communities - due to their small size and population, their remoteness and their difficulty in accessing markets - suffer from limited economic activities

(CPMR, 2012; Planistat Europe and Bradley Dunbar Associates Ltd, 2003). Furthermore, islands suffer from seasonality, as, especially in the Mediterranean, their major income source is tourism during the summer months (Planistat Europe and Bradley Dunbar Associates Ltd, 2003). Tourism has a considerable impact on the fragile natural environment of the islands, indirectly affecting the livelihoods of local traditional fishing and agricultural communities (HCMR, 2005; UNEP, 2006).

Recognising the importance of the islands for the even development of the European area, the EU uses the Regional Policy in order to help the island territories overcome their inherent disadvantages and reach their growth potential. However, the effort is hardly enough for the islands to fully access the European market (CPMR, 2010). There is an immediate need for an assessment of the effects of insularity and new indicators, which take into account the notion of cohesion, rather than simply calculating productivity, as the GDP indicator does (CPMR, 2010). During this time of financial crisis, when central support is vital for the survival of remote communities, the EU Commission lowered the allocation available to sparsely-populated peripheries, further depriving island territories (CPMR, 2012).

Nevertheless, the importance of islands for territorial cohesion within the EU is widely recognised and accepted (European Commission, 2008; European Commission, 2010). In Greece, where 18.8% of the national territory is insular, with four exclusively insular peripheries comprising 14.97% of the territory, the importance of the achievement of even development for the whole of the country is evident (Papadaskalopoulos, 2012). Nevertheless, the needs of the Greek archipelago communities are not represented in the political, social and economic life of the country as they do not comprise a large proportion of the population and are not protected by the Greek public sector (Tsobanoglou, 2011).

## **2. Objectives and methodology**

This research aims at examining the level of participation of a sample of insular communities in regulating their respective areas of residency. It explores the relationship between community members working in the private sector and local authorities, as well as any opportunities for expanding their interaction. In addition, the study investigates the current status of the social economy in the areas under examination and the level of involvement of community members. Comparisons are made with communities from other European member-states such as the case of the cross-border cooperation between Spain and Morocco, which can be used as a guide for further increasing the engagement of Greek insular communities in the policy-making process.

The cases were drawn upon four islands of the Aegean Sea, namely Fourni, Samos, Naxos and Alonissos (Fig. 2). As far as the islands of Fourni, Samos and Alonissos are concerned, our research focuses on the artisanal fishing sector, while, concerning Naxos, it looks into the wider agricultural sector.



**Figure 2:** Map of case study areas. Source: <http://www.greek-islands.us/map-greece/>

An extensive review of the European Union and Greek literature on territorial and social cohesion, insularity and insular community participation was conducted. This was combined with semi-structured, open-ended interviews with a range of stakeholders in the areas under examination (Corbetta, 2003; Yin, 1994). Furthermore, the researchers made personal observations on the case studies, which were used to draw conclusions.

### 3. Characteristics of the study areas

#### 3.1 Fourni

The island of Fourni covers 30.5 km<sup>2</sup> and has 1450 inhabitants<sup>1</sup>, 20% of whom are artisanal fishermen (Greek Statistical Service, 2011; Tzanatos, 2006). The examined community of the island is an artisanal fishing community based mainly on the largest settlement of the island, Fourni Korseon. Fishermen fish relatively close to the shore, around their island and sell their catches almost exclusively to the local market. As some or their relatives operate land-based businesses directly related to fishing, such as fish taverns, they often supply these businesses

<sup>1</sup> During the preparation of this paper, the official results of the 2011 Greek census had not been released. The data used was based on the preliminary results of the 2011 census.

with their catch. These fishermen lobby in a Fishermen Association, through which they make decisions for the marine resource management of their working area. Some members of the Association are also elected members of the local government and, consequently, the Association can exercise enough political pressure to promote their chosen route of action. In addition, they have a relatively stable working relationship with the Law Enforcement Authorities (the Port Police); even though they believe that the latter are not able to perform adequately, as they lack equipment and, sometimes, the will to do their job.

The Artisanal Fishermen Association of Fourni (AFAF), having seen their income reduced by both the recession and the unsustainable exploitation of their targeted marine resources, has resolved in protecting their resources and playing an active role in the decision-making process (Vlachopoulou, 2011). The almost depleted resources have had a coiling effect on the community, as the majority of its members are directly or indirectly affected by fisheries catches, further increasing the community cohesion. As a result, the AFAF, alongside the rest of the community, has supported the creation of a self-regulated Fisheries Protection Area (FPA) with the collaboration of the NGO Archipelagos, Institute of Marine Conservation, which offers its expertise on marine conservation and management (Vlachopoulou, 2011). The fishermen, with the assistance of Archipelagos, survey their daily catches, providing thus data on the current condition of local fish stocks and work on a system of safeguarding the FPA. Before the establishment of the collaboration between the AFAF and Archipelagos, the fishermen were making considerable efforts to support the Port Authorities to patrol the waters around the islands. They reported incidents of illegal fishing activities and transportation of the members of the Port Police where the incidents of illegal fishing activities took place, as the latter lack a marine transport vehicle. The FPA aims at transferring a proportion of control responsibilities to the fishermen themselves as they are eager to participate in the protection and sustainable management of their income source.

### **3.2 Samos**

Samos supports 32,760 inhabitants throughout its territory of 477.942 km<sup>2</sup> (Greek Statistical Service, 2011). The examined community was the settlement of Ormos Marathokampos, in the bay of southwest Samos. The examined community consists of 221 inhabitants<sup>2</sup>, 20% of whom are employed in the fishing industry (Greek Statistical Service, 2008; Tzanatos, 2006). The fishermen operate mostly within or relatively close to bay. Because the local fish stocks have lately been depleted, they tend to fish further away from the coast compared to some

---

<sup>2</sup> As the official results of the 2011 Greek census had not been released during the preparation of this paper, all secondary demographic information is based on the 2001 Greek census.

years ago. The catches are sold to the local market, mostly for individual consumption, or to fish taverns, and a small proportion is transported to the closest town (Karlovasi). The artisanal fishermen are organised in an Artisanal Fishermen Association of Ormos, however, the Association is characterised by extensive mistrust among the members and a lack of cohesion and eagerness for collective action (Vlachopoulou, 2011).

Although the fishermen of Ormos face significant decrease of their income due to the depletion of their income sources, the community has yet to forge relationships of collaboration. Despite the fact that the NGO Archipelagos is situated in close proximity to the community, and they have built a functional relationship with individual members, the members of the AFAO appear unwilling to cooperate with each other to be able to participate in the management of the fish stocks, which constitute their major income source. Additionally, the majority of local fishermen have been unable to form relations with the Port Police as they consider them corrupt and inadequate to perform their tasks. A Port Police team has attempted to convince the community to provide them with information on illegal fishing activity in the bay several times, but the latter have refused to cooperate as they either are acquainted with the illegal fishermen or believe that the Port Police might charge them with breaching fisheries regulations (Vlachopoulou, 2011).

### **3.3 Naxos**

In a geographical area of 429.785 km<sup>2</sup> live the 18,864 inhabitants of the island of Naxos (Greek Statistical Service, 2011). The island produces a variety of agricultural products, many of which are characterised by 'protected designation of origin' (PDO) or 'protected geographical indication' (PGI) according to the EU Council Regulation (EEC) No 2081/92 (European Council, 1992). The majority of the producers of PDO and PGI products participate in agricultural cooperatives, which, in turn, are organised within the Association of Agricultural Cooperatives of Naxos (AACN). The AACN organises the production and influences the supply of the products according to the demand; they also lobby in favour of local producers. As an example, in 2001 they achieved the characterisation of the famous local cheese 'Naxos Graviera' as PDO.

The local producers suffer from the lack of central support to become competitive compared to imported agricultural goods. With the reduction of both the national and European grants, the transportation costs, as well as the scale economies have a negative effect on the expansion of the local production and its promotion to the internal and external markets. In addition, some unregulated pasteurization and cheese-making units operate

outside the AACN's jurisdiction, making the construction of the 'Naxos products' brand name difficult, further incommoding the promotion of the produce to the markets.

Furthermore, the producers of many products which have not been characterised as PDO or PGI, such as the producers of wine, tsipouro, olive oil and honey, have not been able to organise themselves in associations so as to build bottling factories and define eponymous brands (Naxos is related to the Dionysos cult, the Greek god of wine and founder of the "theatron"). This way they have been unable to build upon a rich tradition related to the origin of one of the most prosperous markets in the world today, the wine market. This rich cultural capital needs to be developed via education and training in order to enhance their capability to participate in the management and decision-making concerning their income sources.

The AACN has established relationships of collaboration with local agricultural authorities, such as the Centre for Audit and Certification of Propagating Material and Fertiliser Control (CACPMFC) and the Regional Veterinary Department, to share data and for the members of the Association to get easier access to the services provided by the local government.

### **3.4 Alonissos**

10-15% of the 2,700 inhabitants who live on the 64.118 km<sup>2</sup> which the Island of Alonissos covers are artisanal fishermen (Greek Statistical Service, 2008; Tzanatos, 2006). The marine environment of Alonissos is governed by the Alonissos Marine Park Management Body (AMPMB), as the waters around the island constitute one of the largest habitats of the Mediterranean monk seal (*Monachus monachus*). The NGO MOM for the protection of the Mediterranean monk seal operates in the area and, in the past, collaboration between the latter and the local fishermen existed, under the umbrella of a fisheries surveys project, entitled MOFISH. After the establishment of the AMPMB, the responsibilities for the regulation of the waters of the marine park were transferred from the NGO to the Management Body.

The local fishermen are organised within the Artisanal Fishermen's Association of Alonissos (AFAA). They fish in the waters around the island where fishing access is permitted and the majority fish for Alonissos tuna, a branded product, with longlines. They collaborate informally with the AMPMB in the control of the area by reporting illegal fishing activity. Unfortunately, the formal participation of the AFAA in the regulation of the area is not legally founded and, consequently, it cannot be successfully pursued by either the authorities or the Association itself. However, members of the AFAA, such as the president of the Association, also participate in the Board of Directors of the AMPMB, further bridging

the gap between the two bodies. The Association is characterised by solidarity; they make efforts to protect the local marine environment, but they also support each other and lobby against other fisheries parties, such as trawlers, which might operate within their area of jurisdiction.

The financial crisis has definitely affected the local community in an indirect and rather surprising way. Due to the increase in the prices of fuels, the illegal amateur fishing has been reduced considerably, according to the calculations of the AMPMB. In the past, amateur fishermen would arrive with their yachts in the waters around Alonissos and fish illegally. This phenomenon has decreased significantly. There is a possibility that illegal professional fishing activity in the area might have increased but, as local control authorities do not own a marine transportation vehicle, it is impossible to collect enough data in order to support this hypothesis.

#### **4. Participation, insularity and the social economy in Greece**

The Greek social economy, traditionally, has been provided partly by the state, through political interventions, and largely by the Greek Orthodox Church and the contributions of 'National Benefactors' (Tsobanoglou, 2011). The space for participation of stakeholders in the social economy is minimal, as there is limited legislative background upon which participative action can be based. In the case of agricultural and fishing communities, even though co-operatives and associations do exist, they only extend their action in a limited range of products and specific geographical areas. Collaboration among them is almost non-existent and, consequently, their voices are not heard at the national level, as they have very limited power to act as pressure groups.

In addition, the Greek public sector, although disproportionately large in comparison with the size of the overall Greek economy, has left the local governing bodies in atrophy, depriving them of income from taxation and not allowing them to take up the responsibility of providing local social services (Tsobanoglou, 2011). The majority of the services are organised and realised centrally, making it thus difficult to incorporate those specific to local community needs. This can only mean that the local participation in policy making is practically non-existent outside the political patronage system.

Moreover, even though the EU supports the formulation of networks of cooperation and structures of public participation and private initiative through the development of local social capital, the rather inert, outside clientelist channels "public" bureaucracy in place, does not allow for flexibility in the economic and political sphere (Tsobanoglou, 2007). The Greek

government, for example, did not recognise until very recently the establishment of enterprises operating in the Third Sector; many such bodies are being taxed as if they are private-for-profit corporations (e.g. local cooperative hotels in Naousa, new social enterprises established under the recent law on the social economy in the year 2011). Current recognition of Social Enterprises, legislated by the Ministry of Employment, as vehicles for employment promotion under conditions of acute unemployment, does not entail a comprehensive government response to social needs demanded by voluntary groups. As is the usual in Greece, legislation faces difficulties in its implementation, partly due to the conflictual nature of governmental silos (Departments) and their policy aims. Institutions of state and/or private property, even in cases of abandoned enterprises or property, are not allowed to be used by community groups in search of space for community action (C. Tsolakidis, Founder of Katerini Voluntary Group, Interview to G. Tsobanoglou, Katerini, 03/01/2013). The cases of the Voluntary Groups of Katerini, Veria, Larisa and Volos, to name a few, attest to this in point. While these groups engage in civil action for the protection of the local community environment, as forest fires and other environmental issues, they also engage in voluntary activity managing the provision of food and health aid to the poor, to the uninsured and to those in need<sup>3</sup>.

Hostility between the local government and central agencies seems to allocate to the Church Authorities a privileged space to occupy, as they have their own resources (both as property and financial means) in order to provide, as faith based communities (*enories*), space for shelter, care and food aid. Civil associations are also keen to organise, in parallel, similar actions at local level.

These phenomena are even more evident in the insular areas. As the Greek State has neglected the organisation and development of a sustainable maritime transport network - which would connect the islands with the mainland, and more importantly, with the urban centres and their respective markets - the production in these areas has declined and the quality of living standards has deteriorated significantly, especially since the economic recession (Korres et al., 2007). Apart from the direct competition local producers' face, they also suffer from the effects of an inadequate and fragmentary transportation system and the subsequent absence of links with the urban national and international markets. Moreover, the artisanal fishermen do not have access to technological equipment to improve their work, such as fishing vessels, ship-refrigerators, and a local fish market facility to organise the market. Fishing cooperatives here have limited impact in the value chain between production

---

<sup>3</sup> For more information about the activity of a leading group (Pieria), see: [www.otoposmou.gr](http://www.otoposmou.gr)

and consumption unable to control the process which ends up in the control of merchants who determine the price as they control access to the Athens market.

Another important factor for the development of local pressure groups is social and territorial cohesion. The EU has encompassed the notion of cohesion in its Regional Policy, also known as Cohesion Policy. Still, the Greek State remains oblivious to the issue, as anaemic measures are technically being taken to promote local cohesion. This research supports the social capital-cum-cohesion argument, as it was evident in the comparison of the case studies, that communities characterised by social cohesion and solidarity, have been able to achieve a variety of goals, even without central support. Along with social cohesion, insular communities also lack trust towards the centre. As in the case of the community of Ormos, fishermen often support the status quo and are very negative towards any alteration of and intervention in the state of affairs in their community.

Lastly, education plays a vital role in promoting public participation. The stakeholders need a considerable flow of information about the issues under examination, the procedures, their rights and their responsibilities in order for the participation to be fruitful (Sidaway, 2005). Additionally, individuals in positions of authority within the participating community often need training on leadership and management. Managerial training for the Third Sector, though popular in most European countries, is unknown in Greece. As community action is very limited and unsupported by the state, no peripheral structures, such as cooperative (social) education, have emerged.

## **5. Discussion and suggestions**

Taking into consideration the case studies, it is evident that there is urgent need for promotion of networking among the communities. The exchange of experiences and ideas is a learning process could prove pivotal for the development of a grid of active communities; based on each other's knowledge and supporting one another, the various communities will be enabled to pursue a more meaningful role in policy making. However, learning from experience would hardly be enough. Greece should follow the example set by other countries and promote the notion of social economy to the general public. As an example, in Italy, a project titled 'ECONomia Cooperativa' (Cooperative Economy) for schools has been launched. The project aims at raising awareness among the younger members of the society about cooperatives, along with ideas of solidarity, transparency and social justice (Cooperazione Trentina, 2012). Similarly an on-going project aiming at the development of education and training profiles for

cooperative managers –both elected and appointed- for the European Qualification Area (EQA) may enhance the path to sustainability for Greek cooperatives ([www.coopcampus.eu](http://www.coopcampus.eu))

Promoting the Third Sector in Greece would be an excellent opportunity to empower communities and allow them to be heard (Tsobanoglou, 2008). However, the country is now gradually diminishing the extent of social research, by not supporting financially the academic institutions to perform research and become connected with local communities and society at large.

Cooperation between the communities and the academic institutions is also vital for promoting participation. Through such collaboration, the communities would gain access to academic expertise and professional support for their work and, at the same time, the institutions would be allowed to collect data and perform research on fields directly related to the market. Nevertheless, the universities have currently no ties to the Greek markets, national or regional, and the sporadic research done does not reach the stakeholders.

In insular areas, the above arguments weigh more heavily as the communities have minimal access to state agencies. The universities could form a bridge between the isolated communities and the centre. As the insular produce suffers from high transportation costs, becoming thus expensive and uncompetitive, through academic research and community networking, it could be promoted as quality goods and enter more selective markets rather than trying to compete with commodities of mass production. Besides, cooperation between insular communities could result in vertical production, and, consequently in scale economies. In that way, the local producers could create links to the local markets and bypass the costly system of intermediaries for the supply of their products. If the state would support such initiatives by planning an efficient and inclusive transportation network, as well as networks of supply, eventually, the communities would become a powerful actor in policy making.

For instance, the communities of Naxos could extend their associations to include all the agricultural products of the island and gradually welcome even new members who might want to move from urban to rural areas. Following the example of the Cooperative of Trento, Italy, they could develop a cooperative structure which would provide social services, voice their needs and represent them at the centre; it should incorporate the majority of the economic activity of the island, including production, consumption, education, banking and social services. As such it would assist the effective organisation of its members and, consequently increase the local employability. For example, in Naxos, two companies produce the PDO liqueur ‘Kitron’ by distilling the leaves of the plant *Citrus medica*. Even though the demand for the liqueur is high and its producers need large quantities of leaves, the

cultivation of the plant is constantly decreasing as the cultivators do not consider the cultivation of the plant profitable due to the fact that three years are required to pass before the trees will produce enough leaves for distillation. The existence of a large cooperative structure could be able to correct this market distortion and increase the production of the plant, by regulating the amount of arable land dedicated to the cultivation of *C. medica* trees and by supporting the producers undergoing the primary stage of the cultivation.

Such structures as the one mentioned above could also improve cohesion within the communities by building trust and confidence. If the community was able to regulate its production, the fear of economic instability would be minimised, allowing for the members to forge powerful bonds between themselves and develop relationships with non-members, such as the local authorities through participation.

In time, such collaborations could extend beyond the geographic areas of the communities, as in the case of the Spain-Morocco cross-border cooperation. On such cases, communities with closely related syntheses and similar goals cooperate under the European umbrella to improve transnational relations and achieve various objectives, such as promotion of trade, strengthening of local and regional institution capacity for establishing regional governance, improving mobility and territorial accessibility and promotion of natural and cultural heritage (European Commission, 2012). In the case of Samos, which suffers from illegal fishing activity by Turkish fishing vessels, the establishment of collaboration between fishing communities of the two countries could decrease competition and improve cross-border cohesion (Vlachopoulou, 2011). Jointly managing the marine resources, the two competitors would learn to work together in order to protect and manage their common income source and, at the same time, create a base for future opportunities for cooperation.

Consequently, the Greek state should promote participation at the regional level by supporting collaboration within and among the insular communities. Such an initiative would allow for the development of local structures which would be based upon locality, would exploit the comparative advantages of each community and sustain and enhance cohesion and solidarity, which would in turn contribute to further development of local structures. It would result in a positive feedback which would accelerate the processes of reaching the local growth potential.

## 6. References

- Cooperazione Trentina (2012). 'Education about savings in schools' *Cooperazione Trentina*, 11, December 2012, p. 13. (in Italian)
- Corbetta, P., 2003. *Social Research: Theory, Methods and Techniques*. Translated from Italian by B. Patrick. London: SAGE Publications Ltd.
- CPMR Island Commission (2010). *Proposals for improving the way island territories are dealt with by European regional policy, Final Declaration*. Summit 'The recognition of insularity in the European Regional Policy', 26 April 2010, Palma.
- CPMR Island Commission (2012). *32th CPMR Island Commission Conference, Final Declaration*. 5 November 2012, Nicosia, Cyprus.
- ESPON and the University of the Aegean (2009). *The Development of the Islands – European Islands and Cohesion Policy (EUROISLANDS). Targeted Analysis 2013/2/8, Inception Report*. [online] Available at: [http://www.espon.eu/export/sites/default/Documents/Projects/TargetedAnalyses/EUROISLANDS/inception\\_report\\_full\\_version.pdf](http://www.espon.eu/export/sites/default/Documents/Projects/TargetedAnalyses/EUROISLANDS/inception_report_full_version.pdf) [accessed: 04 January 2013]
- European Commission (2008). Communication from the Commission to the Council, the European Parliament, the Committee of the Regions and the European Economic and Social Committee, COM (2008) 616 final. *Green Paper on Territorial Cohesion: Turning territorial diversity into strength*. SEC (2008) 2550.
- European Commission (2010). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, COM (2010) 642 final. *Conclusions of the fifth report on economic, social and territorial cohesion: The future of cohesion policy*. SEC (2010) 1348 final.
- European Commission (2012). Operational programme 'Spain - external borders 2008-2013' cross-border cooperation'. [online] *Regional Policy – Inforegio*. Available at: [http://ec.europa.eu/regional\\_policy/country/prordn/details\\_new.cfm?gv\\_PAY=ES&gv\\_reg=ALL&gv\\_PGM=1329&LAN=7&gv\\_per=2&gv\\_defL=7](http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_PAY=ES&gv_reg=ALL&gv_PGM=1329&LAN=7&gv_per=2&gv_defL=7) [accessed: 06 January 2013]
- European Council (1992). *Council Regulation (EEC) No 2081/92 of 14 July 1992 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs*. Official Journal L 208, 24.7.1992, p. 1–8.
- Greek Statistical Service (2008). *2001 Population Census: Actual Population, Population Deviation*. [online] Available at: [http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/A1604/Other/A1604\\_SAP01\\_TB\\_DC\\_00\\_2001\\_01\\_F\\_GR.pdf](http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/A1604/Other/A1604_SAP01_TB_DC_00_2001_01_F_GR.pdf) [accessed: 04 January 2013] (in Greek)
- Greek Statistical Service (2011). *Press Conference: Announcement of the 2011 Population Census temporary results*. [online] Available at: [http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/A1602\\_SAM01\\_DT\\_DC\\_00\\_2011\\_01\\_F\\_GR.pdf](http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/General/A1602_SAM01_DT_DC_00_2011_01_F_GR.pdf) [accessed: 04 January 2013] (in Greek)
- HCMR (2005). *State of the Hellenic Marine Environment*. E. Papathanasiou & A. Zenetos (eds.), HCMR Publ., 360 pp.
- Korres, G., Tsofanoglou, G., Kourliouros, I., and Marmaras, E. (2007). 'Tourism and Regional Development: A case study from Greece.' in Zoras, K., et al., *Social Sciences Today*, Athens: Sakkoulas. (in Greek)
- Papadaskalopoulos, A. (2012). *Insularity and Peripheral Developmental Strategy for the Greek Insular Area*. Presentation at the summer school on 'Insular Area and Local Growth', University of the Aegean and Technical University of Crete, 16-27 July 2012, Naxos, Greece. (in Greek)
- Planistat Europe and Bradley Dunbar Associates Ltd (2003). *Analysis of the island*

*regions and outermost regions of the European Union: Part I The island regions and territories. Final Report Summary.* Contract 2000.CE.16.0.AT.118 [online] Available at:

[http://ec.europa.eu/regional\\_policy/sources/docgener/studies/pdf/ilesrup/islands\\_part1\\_summary\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/ilesrup/islands_part1_summary_en.pdf) [accessed 04 January 2013]

Sidaway, R. (2005). *Resolving Environmental Disputes: From conflict to consensus.*

London: Earthscan. *Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community*, signed at Lisbon, 13 December 2007, 2007/C 306/01.

Tsobanoglou, G.. (2007). 'Social Economy' in Zoras, K., et al., *Social Sciences Today*, Athens: Sakkoulas. (in Greek)

Tsobanoglou, G.. (ed.) (2008). *The Rise of the Social Economy*, Athens: Papazisis. (in Greek).

Tsobanoglou, G.. (2011). 'The value of the social economy: Issues and perspectives', in *The social economy as an answer to the eco-socio-economic crisis*, The Greens/EFA in the European Parliament. (in Greek)

Tzanatos, E. (2006). *Structure, Characteristics and Management of Small-scale Fisheries in Greece*. Ph.D thesis. University of Patra, Department of Biology. (in Greek)

UNEP (2006). *Marine and coastal ecosystems and human well-being: A synthesis report based on the findings of the Millennium Ecosystem Assessment*. UNEP. 76 pp.

Vlachopoulou, E. I. (2011). *Enforcement of the European Union Legislation about illegal Fishing Practices in the eastern Aegean Sea and its Impact on the Posidonia oceanica Meadows*. MSc thesis. The University of Edinburgh, Department of Science and Engineering, School of GeoSciences.

Yin, R. K. (1994). *Case Study Research: Design and Methods*. 2nd ed. Thousand Oaks: SAGE Publications, Inc.

## The development of Religious Tourism: The case of Chios in Greece

### **Abstract:**

Religious tourism is growing rapidly in recent years in both international and Greek foreground. The various sacred sites and monuments constitute attractive destinations for every tourist. We have remarked many times that the religious element is involved obviously with the historical and cultural one. Chios is an island in the eastern Aegean that has all the necessary conditions for the further development of religious tourism. Religious tourism in combination with other special and alternative forms may contribute significantly at the signaling of Chios as a distinct destination on the tourist map.

The main objective of this article is to explore the possibilities and prospects of development of religious tourism in Chios. This objective will be fulfilled by conducting primary a research through questionnaire and it seeks to ascertain whether the religious - pilgrimage activity in the area may be an important component of tourism development.

The survey showed that Chios as a religious destination has not been developed enough, but it has many prospects. Thus it is proposed a framework concerning tourism policy and strategy that removes obstacles and exploits the comparative advantages of the island.

**Keywords:** Regional Tourism, Chios, Religious Monuments, Monasteries, Churches, Sanctuaries, tourist development

**Panoraia Poulaki<sup>1</sup>, Maria Ntoumi<sup>2</sup> and Dimitrios Lagos<sup>3</sup>**

---

<sup>1</sup> PhD Student, Department of Business Administration, University of the Aegean, [panoraia@aegean.gr](mailto:panoraia@aegean.gr)

<sup>2</sup> Adjunct Lecture of Quantitative Methods, Department of Business Administration, University of the Aegean, [mdoumi@chios.aegean.gr](mailto:mdoumi@chios.aegean.gr)

<sup>3</sup> Professor of Tourism Economics and Tourist Business Management, Department of Business Administration, University of the Aegean, [d.lagos@aegean.gr](mailto:d.lagos@aegean.gr)

## **1. Introduction**

From antiquity the performance of various devotional activities constituted a basic incentive regarding the movement of people. Nowadays, this movement in order to be fulfilled religious duties is associated with a wide range of tourist activities, which compose the religious tourism.

In a period of intense changes and uncertainty for the modern man the religious trips and tours around the world acquaint a remarkable bloom reviving the pilgrimage activity bygone eras. The numerous movements for religious reasons, enriched with "cosmic figures" have made the religious tourism point of reference in the field of special and alternative tourism, which gradually replaces the organized mass tourism. Moreover, the religious journey is not new, is the oldest and most prevalent form of movement in the history of mankind (Raptis 2011: 41-58).

It is about a special form of tourism, which expresses the desire of people to move from their permanent residence in another place that they consider that it is sacred (e.g. church, convent, hermitage holy tomb). It is common the choice to visit this place near a particular period during which some important religious events like Christmas, Easter, Assumption, etc are celebrated. In this way, it is achieved the communication with the divine, the fulfillment of a vow or even the participation in some religious events (Lagos 2011:7-19).

The issue of religious tourism comes under the general and sustainable tourism development of alternative tourism, special interest and respect for holy places. The prospects of growth of religious tourism is a global and universal effort, which focuses specifically on the similarities and differences between world's regions, representing various stages of development, cultural systems, social and environmental conditions (Rodosthenous 2012: 18).

Religious tourism and tourism in general, for the sake of the movement of people, helps in the development and intensification of social and cultural relations. In this way, it can be occurred safely the exchange of cultural achievements and the creation of brotherhood's conditions of people. Moreover, the peace that is purely Christian preaching is consolidated and is ensured through the contact of friends' tourists or pilgrims of other people. It is therefore considered as an obligation of the State and the Church to collaborate and help both religious tourism and general tourism not to be limited to financial move, but at the same time to be a moral, cultural and intellectual movement and development (Rodosthenous 2012: 218).

It is important for each country to include in the list of UNESCO monuments and sites of natural and cultural heritage. Such integration is both a commitment for a country that will

protect the monument and will operate management plans and protection of it. Moreover, it ensures the assistance of the international community in this effort. Greece includes in the list just 17 seats, of which six are religious - cultural monuments, such as Meteora, Mount Athos, early Christian and Byzantine monuments of Thessaloniki, the archaeological site of Mystras, the Monasteries of Daphni, Hosios Loukas, Nea Moni and the historic center (Chora) with the Monastery of Saint John the Theologian and the Cave of the Apocalypse of Patmos (Moiras 2009: 159-163).

Chios is one of the richest islands in Greece as far as the religious and historical monuments are concerned and for this reason is the most suitable for the development of religious tourism. It disposes important religious attractions that are an integral part of the national heritage and attract tourists who may be part of propellant development of religious tourism. Chios for a long time has been distinguished for his piety of its inhabitants and for its intense ecclesial life. This is testified by the many parish churches, its chapels, its private temples, and many of the monastic churches. Nea Moni of Chios, because of exceptional importance in terms of the History of Art and Architecture, belongs to the monuments that have been declared as UNESCO World Heritage protected by UNESCO.

In order to investigate the possibilities and prospects of development of religious tourism in Chios it was conducted a survey concerning the status quo and recording problems that hinder its development. For this purpose quantitative research conducted by using a closed questionnaire and the method of stratified sampling.

## **2. A theoretical approach to the development of religious tourism in the international arena**

It is clear that religion is a particularly important aspect of human life. This is a factor that acts as a catalyst in the behavior and attitude of the man. Religion is the belief that is manifested in the knowledge, thinking, emotions, will and acts regarding the effect of higher forces, personal or impersonal. Today in the world there are many different religions (Table 1 and Table 2).

**Table 1: The size of the 12 classical world religions**

Religion	%
Christianity	33.06%
Islam	20.28%
Hinduism	13.33%
Buddhism	5.87%
Sikhism	0.39%
Judaism	0.23%
Bahá'í	0.12%
Confucianism	0.10%
Jainism	0.07%
Shinto	0.04%
Taoism	0.04%
Zoroastrianism	0.04%
<i>Other</i>	26.43%
<b>Total</b>	<b>100%</b>

Source: *Britannica Encyclopaedia, 2005*

**Table 2: The size of the 7 classical world religions**

Religion	Size	%
Christianity	2,234,770,118	33.32%
Islam	1,409,139,261	21.01%
Hinduism	889,347,292	13.26%
Buddhism	391,688,400	5.84%
Sikhism	23,474,476	0.35%
Judaism	15,426,084	0.23%
Bahá'í	8,048,392	0.12%
<i>Other (incl. non-religious &amp; atheists)</i>	<i>1,735,099,128</i>	<i>25.87%</i>
<b>Total</b>	<b>6,706,993,152</b>	<b>100%</b>

Source: *The CIA World Fact Book, 2008*

The religious motivation may be the main reason for the trip, but travelers - tourists exploit this opportunity to visit other places of cultural and recreational interest. This, of course, creates the need for standardization and commercialization of the “religious package”. In contrast with the format and organization of the pilgrimage in the past, today it seems that

projects a global dimension business based on "religious package." Pilgrims - tourists usually arrive in groups that have organized travel agencies. The medieval pilgrim struggled with fatigue, risk and other problems that might arise. The modern pilgrim pays for a trip - pack, and has no individual responsibility for organizing the trip, which has been organized for him in all its details (Lagos 2011: 7-19).

According to the World Tourism Organization, religious tourism is the fastest growing tourism product after 2007.

The Jews visit during their religious trips to Israel a number of places mentioned in the Bible and related with the Jewish history and the graves of prominent biblical people and important rabbis, according to the general custom of sacred texts to honor Jews their dead (Raptis 2011: 41-58).

Roman Catholics are tolerant to the idea of religious tourism, nor accept nor reject it, perhaps because the phenomenon is powerful and has huge economic dimensions. The same tolerance observed in the Orthodox Church, although the term religious tourism is considered inappropriate according to strictly theological criteria (Moira 2003).

It is estimated that approximately two million Muslims are today visiting Mecca every year. As for Catholics, around 20-30 million pilgrims calculated who flock to the Vatican for holidays. The remaining Christians continue to give special attention to travel to the holy places, a habit that is kept from the 4th century. For Muslims the pilgrimage journey is part of a longer trip in the footsteps of "God's way". The trip must have "spiritual purpose" to introduce the pilgrim to the greatness of God, through the observation of the "points" of history and the miracles of man and nature, which are gifts from God (Din 1989: 559).

In conclusion we can deduce that the pilgrimage was and it will continue to be an important motivation movement of people and this often associated with religious and historical value of monasteries or churches, religious celebrations and various historical events. Religious tourism can be further strengthened internationally if the areas of the tourist destination dispose various tourist resources apart from religious monuments.

### **3. A theoretical approach to the development of religious tourism in Greece**

Religious tourism in Greece has been developed rapidly in recent years. For this reason it constitutes an interesting alternative form of tourism which has a special contribution to the development of disadvantaged and less developed regions of the country. As it is associated with visits to monuments or places of religious importance, it is a regional economic activity given, of course, the spatial dispersion of these monuments (Polyzos 16 (9): 1).

As throughout the western world, so in Greece the pilgrim is a specific objective of the tourism industry, as it is estimated that only domestic tourists who visit religious monuments are over 300,000 each year. Having the Cathedrals, the great parishes of large cities and the various religious organizations as the center of the religious tourism visits are organized to religious places, either on the occasion of a religious festival, event or ceremony, or not (Polyzos 16 (9): 1).

Greece has included in the UNESCO list only 17 seats, of which six are religious - cultural monuments, such as Meteora, Mount Athos, early Christian and Byzantine monuments of Thessaloniki, the archaeological site of Mystras, the Monasteries of Daphni, Hosios Loukas, Nea Moni of Chios and the historic center (“Chora”) with the Monastery of Saint John the Theologian and the Cave of the Apocalypse of Patmos (Moiras 2009: 159-163).

According to the World Tourism Organization (WTO), the most visited pilgrimage sites in Greece are listed in Table 3.

**Table 3: Monuments - Places of Pilgrimage in Greece**

<b>Monuments - Places of Pilgrimage in Greece</b>
<b>Areas pilgrimage:</b> Mount Athos, Meteora
<b>Places of worship:</b> St. John's Cave Apocalypse (Patmos), JN Holy Virgin (Tinos), Panagia Sumela (Veria)
<b>Christian monuments of UNESCO:</b> Meteora, Mount Athos, Early Christian and Byzantine monuments of Thessaloniki (Temples St. Demetrios, Acheiropiitos, St. Sophia, Lady Copper, Holy Apostles, St. Nicholas Orfanos, St. Panteleimon Monastery Latomou), Mistras (Cathedral), Attica (Single Daphni, Hosios Loukas), <b>Nea Moni Monastery of Chios, St. John of Patmos</b>
<b>Historically monasteries:</b> Arkadi Rethymnon of Crete, Agia Lavra of Achaia, Saint Raphael of Mytilene, Kougi of Souli
<b>Monasteries and temples of unique natural beauty:</b> Saint Achilles - Hermitages of Prespa, Monastery of the Holy Forerunner at Serres, Monasteries of Arcadia

*Source: World Tourism Organization, 2010*

The number and distribution of shrines per prefecture in Greece are presented in Table 4. Most shrines are found in the prefectures of Attica, Dodecanese and Cyclades. It is worth to mention the Prefecture of Chios with 22 shrines and ranks 13th among the 51 Prefectures of Greece. It has been noted that the number of foreign tourists who visit each year to Mount Athos and Meteora is great enough. As far as Greek citizens are concerned, there are many Catholic churches and monasteries in Greece, due to small percentage of Greek citizens who are Christians Catholics, but the movement of foreign tourists for religious tourism in Greece is limited.

**Table 4:** Shrines of Greece per Prefecture

Number and distribution of shrines in Greece per Prefecture					
Prefecture	Total Shrines	Prefecture	Total Shrines	Prefecture	Total Shrines
Aetoloakarnania	25	Thesprotia	11	Magnesia	25
Argolida	14	Thessaloniki	25	Messinia	20
Arkadia	33	Ioannina	17	Xanthi	4
Arta	17	Kavala	12	Pella	8
Attica	69	Karditsa	8	Pieria	6
Achaia	28	Kastoria	5	Preveza	5
Boeotia	26	Corfu	24	Rethymno	13
Grevena	2	Kefalonia	14	Rodopi	1
Drama	2	Kilkis	3	Samos	30
Dodecanese	67	Kozani	11	Serres	17
Evros	7	Corinth	43	Trikala	14
Evia	18	Cyclades	41	Fthiotida	19
Evrytania	8	Lakonia	16	Florina	5
Zakynthos	9	Larissa	19	Phocis	7
Ilia	29	Lassithi	10	Halkidiki	8
Imathia	13	Lesvos	14	Chania	11
Heraklion	27	Leykada	7	Chios	22

Source: World Tourism Organization, 2010

A research of the National Foundation of Annunciation of Tinos proved that a half million (1,500,000) pilgrims go at the Virgin Mary on average each year from March to October (2009 Squadron). It was noticed that there is booming tourist traffic in Greece from Russia. It is estimated that Greece can attract large number of tourists and religious pilgrimage tours in our country. For this reason it has created a joint committee of the Ministry and the Church of Greece. In addition, an attempt is made to create an official pilgrimage map of Greece. Towards this direction moves the program "Surface" to promote religious tourism. Also, a considerable effort towards this direction is considered the promotion and visibility of the places of which passed the Apostle Paul.

In conclusion it is shown that religious tourism has much to offer in Greece. All of the stakeholders have to join their forces in order to highlight and promote specific strategic directions for improving religious tourism product and to establish Greece as one of the top destinations worldwide, relying on natural treasure of priceless historical and cultural monuments of it.

#### **4. The regional tourism in Chios of Greece**

Chios is one of the largest islands of the Eastern Aegean. It is very close to the coast of Asia Minor. It is the fifth largest island in Greece (904 sq. km.) and disposes population which lives in both the city and the port of Chios and in the 64 villages. It is considered by many to be the island of Homer and is known for its unique product, mastic, which is produced only in this part of the world. It keeps alive the culture through customs and traditions that are still part of everyday life. Byzantium, and the Genoese domination that followed, have bequeathed the island with very unique architectural monuments and settlements. Chios has a pleasant Mediterranean climate with north - westerly winds and an average temperature of 28-29 degrees Celsius. Winters are mild and at summers rarely there are rains, which help to increase the number of visitors throughout the year.

Chios is distinguished for its very important and interesting cultural heritage with many Byzantine monuments, many remarkable archaeological finds, rich exhibits at museums, castles, monasteries, churches, et al. Chios has important religious sites, monasteries and churches, which are an integral part of the national heritage and attract tourists, who can be a promoter element of the development of religious tourism. It has a large diversity of elements, which due both to the man and the historical, cultural, and natural environment. There are many notable traditional medieval settlements which combined with the special natural features of the island it is emerged the possibility of diversifying the tourism product by developing special and alternative forms of tourism. It is obvious that the development of religious tourism can significantly help the Greek tourist product. However, we have to emphasize that it is essential to be formulate a tourism policy framework at the local level, which will include a number of selected activities for the design and management of religious tourism (Liadis 2011: 59-70).

In Chios there are more than 30 monasteries and hundreds of churches that prove the rich religious heritage. The richness of religious monuments, the myths which remain alive with the passage of time and the countless miracles that echo the beautiful surroundings attract interest and make Chios the ideal destination for thousands of pilgrims. The impressive frescoes, the mosaics, the rare Byzantine icons and the relics priestly give visitors the chance to explore and learn about the rare historical and cultural past of the island. It is obvious, of course, that the island of Chios has such remarkable religious monuments that are an incentive for tourists to visit and admire the great religious value, and many other temples where realized religious festivals and constitute subject pilgrimage and opportunity to attract tourists (Lagos 2011: 7-19).

The island of mastic always was distinguished for its piety of its inhabitants and for its intense ecclesial life. This is confirmed - among other things – by the many Parish Churches of (109), the Oratories (182), the Chapels (368), the Private Temples (272), and many monastic churches (19).

There are many areas in Chios with religious sites which are an integral part of our national heritage and attract tourists. Indicatively, we mention some of the most important religious monuments and museums of the island in Table 5.

**Table 5: Important Religious Monuments and Museums of Chios**

<b>Historical - Religious Monuments and Museums of Chios</b>	
<b>Orthodox Christian Monuments</b>	<b>Museums</b>
Early Christian Basilica (Emporeios)	Archaeological Museum of Chios
Early Christian Basilica St. Isidore (4th c.)	Byzantine Museum of Nea Moni
Nea Moni (1042) (World Heritage UNESCO)	Byzantine Museum "Palataki" Castle of Chios
Saint Georgios Sikousis (12th or 13th century)	Folklore Museum of Kallimasia
Krina Lady (1287)	Folklore Museum Public Library Chios' Adamantios Korais "
Holy Apostles Pyrgi (13th c.)	Museum Citrus (Kampos)
Lady Sicily (13th c.)	Maritime Museum, et al.
Holy Archangels Monastery (Nenita) (1305)	<b>Catholic Christian Monuments</b>
Agia Markella (Volissos) (1500)	S. Nicola Bari
Monastery Moundon (Diefcha) (1582)	S. Felice
Taksiarchis Anavatos (1882)	Catholic Cemetery (Kofinas), et al.
Holy Monastery of Panagia Myrtdiotissa (1887)	<b>Ottoman Monuments</b>
Metropolis of Chios (1888)	Metzitie Mosque or Sultan Metzit Mosque
Lady Evangelistria	Bairakli Mosque
Monastery of Our Lady Voitheias	Chamidie Mosque
<b>Jewish Monuments</b>	Baths (Castle of Chios)
Jewish Cemetery	Seminary (Castle of Chios)
Jewish Quarter (Castle of Chios)	Baths (Square of Chios)
Jewish Inscriptions, et al.	Fountains, et al.

Source: Poulaki P, 2013



*Fig. 1. Nea Moni and mosaics of Nea Moni*

Nea Moni is the most important monastery of the island and constitutes a monument of international importance (Fig. 1). It was built by the Emperor Constantine the Gladiator. Nea Moni, because of its exceptional importance in terms of the History of Art and Architecture, belongs to the monuments that have been declared as UNESCO World Heritage and is protected by UNESCO.

The Lady Krina is the closest monument to Nea Moni. It was built in the late 12th century and is located in Vavili of Chios .

Moreover, remarkable religious monuments are Lady Sicily and Holy Apostles of Chios (Fig. 2).



*Fig. 2. Lady Sicily and Holy Apostles of Chios*

In addition to these, important are the Byzantine Ecclesiastical Museums of Chios, such as:

- Byzantine Museum of Chios,
- Byzantine Museum "Palataki" (Castle of Chios),
- New Byzantine Museum of Nea Moni,
- Ecclesiastical Museum Church of St. George of Vrontados
- Ecclesiastical Museum of the Holy Metropolitan Church of Chios, et al.

Moreover, Muslim, Catholic and Jewish Monuments plays an important role on the island regarding religious tourism.

Of course in order to be developed the religious tourism in Chios and to attract foreign tourists, should, in principle, publicize the existence of temples and monasteries to stakeholders in Europe and the U.S., so as to be converted to pilgrimage centers that will attract Christians to visit. As it isn't easy enough for the pilgrims to prefer a visit in Greece and especially in Chios in order to satisfy their religious motivation, because of the multitude of pilgrimage sites in central and western Europe, this could be done easily more feasible if it was combined with a journey in our country that would include the satisfaction of other incentives and interests (Lagos 2011).

In conclusion we can ascertain that there are opportunities and prospects for growth of religious tourism in Chios. Religious tourism can be a way of highlighting the resources of the island both natural and cultural, as Chios has all the necessary conditions for the further development of religious tourism in combination with other special and alternative forms which contribute to be marked on the tourist map as a distinct destination.

### **5.1. The methodological framework of empirical research**

In order to carry out the research and to collect the necessary primary data to investigate the objectives we used a closed questionnaire. The objectives of this survey are: to reflect quantitatively the present situation of religious tourism in Chios, to identify potential problems that prevent its development and to identify the scope and the potential for its development.

This research consists of three stages. The first stage involves the design of the questionnaire, emphasizing the setting up of questions which will allow the use of quantitative analysis. We used, mainly closed questions with strictly specified range of answers and questions scoring to the five-point scale according to the Likert's scale. The choice of this method was mainly based on the substantial size of the survey's sample. In some questions we included the option "other". This option enables respondents to supplement other information as they deem necessary and believe that they can help in the investigation.

The second stage involves the distribution of the questionnaire. The sampling method used was the stratified random sampling in order to ensure the highest possible rate of representativeness of the sample, through the distribution of the population to basic categories of workers, to independent homogeneous sub - populations and to a random selection of people from them. The time frame during which implemented the empirical investigation was

during the period October - December 2012. Respondents were men and women aged 18 to 65 + years, residents of the island. The basic aim was to gather a sufficient number of questionnaires that would allow verification of affairs investigation.

The third stage involves the processing of data using the software SPSS 21.00 and the corresponding statistical analysis of the results.

## **5.2. Description and traits of the sample**

The categories of people which selected to participate in this research are categorized as follows: Church, public and private institutions (involved in tourism), and tourism companies which were in operation during the survey period. 205 questionnaires were distributed, 173 of them was correctly and fully completed. The number of responses considered satisfactory to ensure both the effectiveness of statistical processing and to export reliable scientific conclusions.

The sample has the following features by category:

- As to the institutions to which the respondent belongs: the percentage of the public sector is 22.54 % and is related to services that are directly related to tourism, such as: Region of North Aegean, Regional Unit of Chios (Department of Tourism), Municipality of Chios (Municipal Commission of Tourism's Promotion and Development), Municipality of Chios (Tourist Office) and the Municipality of Chios (Public Relations Office). The percentage of the Church is 23.70 % and refers to the Metropolis of Chios, Psaron and Oinoussai and the priests of the churches and monasteries of Chios. And finally, the percentage of tourism enterprises is 53.76% and includes hotels, tourist offices, tourist shops, restaurants and apartments.
- Regarding the sex the 64.16% of the respondents are men while the percentage of women corresponds to 35.84% of the sample. Certainly, key role plays the fact that a large part of the informants were the priests of the churches and monasteries.
- As far as the age is concerned there are four age groups: the first age group is between 18-35, with a percentage of 23.70%, the second age group between 36-50, with a percentage of 55.49%, the third age group is 51-65 with a percentage of 17.34%, and the fourth age group concerns people aged 65+ with a rate of 3.47%. We observe that the majority of the individuals in the sample belong to the productive age group of 36-50 years and they involved actively in the tourism sector.
- As for the educational level the majority (49.71%) of the sample are graduates of the secondary school, a significant percentage (39.31%) are university graduates, a smaller

percentage (8.09%) hold graduate degrees while the proportion of people in compulsory education is quite small (2.89%). In particular, it should be noted that the majority of stakeholders in tourism development - whether public or private sector - are graduates of secondary education and about the same percentage attended higher education and master's degrees.

## **6. The presentation of results of empirical research and critical evaluation**

This research was conducted in order to investigate the current status of religious tourism in Chios, the prospects of development and the policy measures that should be implemented to further development, through the prism of the public sector, the Church and Tourist Companies.

It is necessary, before the presentation of research results, to be examined with the most suitable manner the relevance of the questions, given that the set of questions used in the questionnaire measure different directions of the same problem. The reliability of the internal consistency was tested by the indicator of Cronbach, which measures the homogeneity of the group of questions when they are combined. The general formula is given by the following equation:

$$a = \frac{kr}{1 + (k - 1)r}$$

where k is the number of questions we monitor and r is the average of the correlations between questions. The price is affected by both the number of queries and the average correlation. The coefficient takes the value 1 when there is complete homogeneity of questions and considered satisfactory when the price is equal to or greater than 0.80. In this example, the reliability of the a - Cronbach of the questions which are under - examination calculated 0.71 indicating that the scale has a good reliability.

The following tables 6.1 - 6.20 are presented the main results obtained from the processing of the questionnaires.

- From six questions (Tables 6.1 - 6.6) draw conclusions about the current state of religious tourism in Chios. More specifically:

**Table 6.1:** Development of religious tourism in Chios

		Do you believe that the religious tourism is thriving in Chios? (growth rate)					Total
		At all	Little	Quite	Very	I don't know	
Sector:	1.Public Sector	30% (12)	51,3% (20)	15,4% (6)	2,6% (1)	0% (0)	100% (39)
	2.Church	2,4% (1)	46,3% (19)	31,7% (13)	19,5% (8)	0% (0)	100% (41)
	3.Tourist Companies	35,5 % (33)	49,5% (46)	12,9% (12)	0% (0)	2,2% (2)	100% (93)
		26,6% (46)	49,1% (85)	17,9 (31)	5,2% (9)	1,2% (2)	100% (173)

Table 6.1 illustrates the percentages of the responses of the respondents according to the institution to which they belong regarding the degree of development of religious tourism in the Prefecture of Chios. We observe that 19.5% of the Church argues that religious tourism is well developed, in contrast with Tourist Companies who believe that it is not developed (at the rate of 35.5%). Also, both the Public Sector, the Church and Tourist Companies said that religious tourism is thriving with rates of 51.3%, 46.3% and 49.5%, respectively.

**Table 6.2:** Predisposition of the locals for the development of religious tourism in Chios

		How would you describe the disposition of the locals towards the development of religious tourism? (satisfaction)					Total
		At all	Little	Quite	Very	I don't know	
Sector:	1. Public Sector	15,4% (6)	43,6% (17)	30,8% (12)	5,1% (2)	5,1% (2)	100% (39)
	2. Church	4,9% (2)	29,3% (12)	46,3% (19)	17,1% (7)	2,4% (1)	100% (41)
	3. Tourist Companies	25,8% (24)	35,5% (33)	26,9% (25)	5,4% (5)	6,5% (6)	100% (93)
		18,5% (32)	35,8% (62)	32,4% (56)	8,1% (14)	5,2% (9)	100% (173)

In Table 6.2 we observe the percentages of the responses of the sample regarding the disposition of the locals for the development of religious tourism in Chios. The rates for both the categories which are associated with the "satisfactory enough" spirit of the residents are 30.8%, 46.3% and 26.9% respectively. Also regarding the 'no' satisfactory disposition of local the rates which are related to Public Sector and Tourist Companies are 15.4% and 25.8% respectively.

**Table 6.3:** Prospects support for the development of religious tourism in Chios

	Do you consider that Chios is able to support religious tourism?				
	At all	Little	Quite	Very	I don't know
Sector: 1.Public Sector	2,6% (1)	23,1% (9)	48,7% (19)	25,6% (10)	0% (0)
2.Church	0% (0)	29,3% (12)	43,9% (18)	26,8% (11)	0% (0)
3.Tourist Companies	18,3% (17)	31,2% (29)	34,4% (32)	14% (13)	2,2% (2)
	10,4% (18)	28,9% (50)	39,9% (69)	19,7% (34)	1,2% (2)

Table 6.3 presents the percentages of the responses of the respondents according to the institution to which they belong on the prospects of support regarding the development of religious tourism in the county. Both the three institutions support that there are several growth prospects of religious tourism on the island with rates of 48.7%, 43.9% and 34.4%, respectively. Additionally, it should be noted that both the Public Sector and the Church believe that Chios has many prospects for that growth with a rate of 25.6% and 26.8% respectively compared with the respondents who come from Tourist Companies whose rate touch the 14%.

**Table 6.4:** The situation of religious monuments in Chios

	Do you think that the situation of religious monuments in Chios is satisfactory?					Total
	At all	Little	Quite	Very	Excellent	
Sector: 1.Public Sector	5,1% (2)	30,8% (12)	53,8% (21)	7,7% (3)	2,6% (1)	100% (39)
2.Church	0% (0)	4,9% (2)	31,7% (13)	43,9% (18)	19,5% (8)	100% (41)
3. Tourist Companies	4,3% (4)	32,3% (30)	36,6% (34)	26,9% (25)	0% (0)	100% (93)
	3,5% (6)	25,4% (44)	39,3% (68)	26,6% (46)	5,2% (9)	100% (173)

In Table 6.4 the percentages of the responses of the sample concerned the status of religious monuments in Chios are bring together. The option "satisfactory enough" is the most popular as both the three institutions present the following rates 53.8%, 31.7% and 36.6% respectively. As for the "excellent" condition of the monuments is worth noting the proportion of Church which is 19.5% and the rate of Tourist Companies which is 0%. It is obvious the diametrically opposite view of respondents representing these categories.

**Table 6.5:** Estimates of operators for tourists' – pilgrims' sensations concerning the natural beauty of Chios

	What you think are the impressions of tourists - pilgrims on natural beauties of the island?				Total
	Good	Fairly good	Very good	Excellent	
Sector: 1.Public Sector	0% (0)	7,7% (3)	46,2% (18)	46,2% (18)	100% (39)
2. Church	0% (0)	4,9% (2)	43,9% (18)	51,2% (21)	100% (41)
3. Tourist Companies	1,1% (1)	9,7% (9)	24,7% (23)	64,5% (60)	100% (93)
	0,6% (1)	8,1% (14)	34,1% (59)	57,2% (99)	100% (173)

Table 6.5 depicts the percentages of the responses of the respondents according to the institution to which they belong regarding the estimates of the impressions of tourists pilgrims for the natural beauty of the island. It was observed that the high rates found in the “excellent” natural beauties of the island, 46.2%, 51.2% and 64.5% respectively in the Public Sector, the Church and the Tourist Companies. We must mention the 0% we found both the Public Sector and the Church as to the answer "good" impression.

**Table 6.6:** Estimates of operators for tourists' – pilgrims' sensations concerning the local hospitality

	Are satisfactory the impressions of tourists - pilgrims concerning the local hospitality?					Total
	At all	Little	Quite	Very	Very much	
Sector: 1.Public	0% (0)	15,4% (6)	30,8% (12)	41% (16)	12,8% (5)	100% (39)
2.Church	0% (0)	2,4% (1)	31,7% (13)	46,3% (19)	19,5% (8)	100% (41)
3.Tourist Companies	2,2% (2)	9,7% (9)	37,6% (35)	41,9% (39)	8,6% (8)	100% (93)
	1,2% (2)	9,2% (16)	34,7% (60)	42,8% (74)	12,1% (21)	100% (173)

Table 6.6 shows the percentages of the responses of the respondents according to the institution to which they belong in relation to their estimates for tourists- pilgrims regarding the local hospitality. It was observed that the highest rates occur at the response “very satisfactory” and more specifically: 41% the Public Sector, 46.3% the Church, and 41.9% Tourist Companies chose this option.

In conclusion, as far as the present situation of religious tourism in Chios is concerned according to the stakeholders' view the religious tourism is quite developed. There is little tendency for locals to participate in the development of this alternative form of tourism. This may be due to the fact that the locals are not informed enough and therefore they are not familiar with the religious tourism. Although the operators of ours sample support this view, they also consider that there are many perspectives to support the development of religious tourism on the island. This is based on the satisfactory condition of the religious monuments of the island, on their particular religious value - uniqueness and on their excellent natural beauties. Guests may pilgrims to experience the unique natural beauty of the island and the individual religious - historical monuments combined with the local hospitality.

- Seven questions (Tables 6.7 - 6.13) draw conclusions about the factors that hinder the development of religious tourism in Chios. More specifically:

**Table 6.7: Adequacy of the tourism promotion of island**

		Do you think that is insufficient the tourist promotion of the island?		Total
		Yes	No	
Sector:	1.Public Sector	53,8 (21)	46,2% (18)	100% (39)
	2.Church	65,9% (27)	34,1% (14)	100% (41)
	3.Tourist Companies	86% (80)	14% (13)	100% (93)
		74% (128)	26% (45)	100% (173)

Table 6.7 depicts the percentages of the responses of the pespondents according to the institution to which they belong and their estimates for the adequacy of the tourism promotion of the island. It was observed that the majority agrees that the island is not sufficiently highlighted and it is shown by the percentages obtained: 53.8% the Public Sector, 65.9% the Church and 86% Tourist Companies.

**Table 6.8: Deficiencies in infrastructure**

		Do you think that there are deficiencies in infrastructure?		Total
		Yes	No	
Sector:	1.Public Sector	51,3% (20)	48,7% (19)	100% (39)
	2.Church	48,8% (20)	51,2% (21)	100% (41)
	3. Tourist Companies	50,5% (47)	49,5% (46)	100% (93)
		50,3% (87)	49,7% (86)	100% (173)

Table 6.8 shows the percentages of the answers of our sample according to the institution to which they belong and their estimates for the existence of deficiencies in infrastructure on the island. We remarked that both affirmative and negative responses take approximately the same rates. In particular, we note that 50.3% of all three actors said yes and 49.7% answered negatively.

**Table 6.9:** Prices of Provided Services

	Do you think that the prices of provided services are high?		Total
	Yes	No	
Sector: 1.Public Sector	53,8% (21)	46,2% (18)	100% (39)
2. Church	87,8% (36)	12,2% (5)	100% (41)
3. Tourist Companies	62,45 (58)	37,6% (35)	100% (93)
	66,5% (115)	33,5% (58)	100% (173)

Table 6.9 presents the percentages of the responses of the respondents according to the institution to which they belong on the estimates of the price level of provided services. It was observed that 66.5% of respondents agree that the prices of service are high. The corresponding percentage in the Public Sector is 53.8%, the percentage corresponding to the Tourist Companies is 62.45%, while the percentage corresponding to the views of the Church differs quite reaching 87.8%.

**Table 6.10:** Information on religious tourism in Chios

	Do you think that the information on the religious tourism in Chios is incomplete?					Total
	At all	Little	Quite	Very	Very much	
Sector: 1.Public Sector	12,85 (5)	51,35 (20)	15,4% (6)	15,4% (6)	5,15 (2)	100% (39)
2. Church	4,9% (2)	31,7% (13)	43,9% (18)	19,5% (8)	0% (0)	100% (41)
3. Tourist Companies	9,7% (9)	45,2% (42)	36,6% (34)	6,5% (6)	2,2% (2)	100% (93)
	9,2% (16)	43,4% (75)	33,5% (58)	11,6% (20)	2,3% (4)	100% (173)

At Table 6.10 it is shown the percentages of the answers of the respondents according to the institution to which they belong and their estimates regarding the quantity of available information on the religious tourism in Chios. It was noted that all three players agree on the "little" incomplete information concerning the religious tourism and in particular we have 43.4%.

**Table 6.11:** Coordination of agencies related to tourism

		Do you think that there is coordination between the agencies related to tourism?		Total
		No	Yes	
Sector:	1.Public Sector	87,2% (34)	12,8% (5)	100% (39)
	2.Church	80,5% (33)	19,5% (8)	100% (41)
	3.Tourist Companies	69,9% (65)	30,1% (28)	100% (93)
		76,3% (132)	23,7% (41)	100% (173)

Table 6.11 shows the percentages of the responses of our sample according to the institution to which they belong and their estimates as far as the coordination of agencies related to tourism is concerned. We observed that the rates mentioned in the answer “no” are distributed as follows: 87.2% for the Public Sector, 80.5% for the Church, and 69.9% for Tourist Companies. It is noteworthy that the percentages exceed 80% which confirms the great lack of coordination between research participants.

**Table 6.12:** Intention to use the expertise of the University of the Aegean for the development of religious tourism

		Do you think that we should “exploit” the expertise of the University of the Aegean?		Total
		Yes	No	
Sector:	1. Public Sector	43,6% (17)	56,4% (22)	100% (39)
	2. Church	61% (25)	39% (16)	100% (41)
	3. Tourist Companies	30,1% (28)	69,9% (65)	100% (93)
		40,5% (70)	59,5% (103)	100% (173)

Table 6.12 presents the percentages of the responses of the respondents according to the institution to which they belong and their intention to use the expertise of the University of the Aegean for the development of religious tourism on the island. We noticed that the 59.5% of the respondents believe that the locals are not willing to use the expertise of the University. Especially impressive is the rate of 69.9% corresponding to the opinion expressed by Tourist Companies.

**Table 6.13:** Geographical isolation of Chios

		Do you think that Chios is “geographically isolated”?		Total
		Yes	No	
Sector:	1.Public Sector	38,5% (15)	61,5% (24)	100% 39)
	2.Church	36,6% (15)	63,4% (26)	100% (41)
	3.Tourist Companies	41,9% (39)	58,1% (54)	100% (93)

		Do you think that Chios is "geographically isolated"?		Total
		Yes	No	
Sector:	1.Public Sector	38,5% (15)	61,5% (24)	100% (39)
	2.Church	36,6% (15)	63,4% (26)	100% (41)
	3.Tourist Companies	41,9% (39)	58,1% (54)	100% (93)
		39,9% (69)	60,1% (104)	100% (173)

Table 6.13 depicts another important parameter concerning the percentages of the responses of the respondents according to the institution to which they belong regarding their views on the "remoteness" of the island. We ascertained that the majority of respondents believe that there is no "geographical isolation" in Chios. In particular we have the following rates: 61.5% for the Public Sector, 63.4 % for the Church and 58.1% for Tourist Companies.

In conclusion, regarding the obstacles which the stakeholders detect in the development of religious tourism on the island the prime position is occupied by the lack of general tourism promotion of the island. The relative percentage of almost 86%, demonstrates the importance of this barrier. Moreover, we noticed the great lack of adequate infrastructure in combination with the high prices of the services provided lay this destination prohibitive. It is noteworthy that stakeholders are finding a lack of coordination between them. This finding is paradoxical in this section, because while indeed it is mentioned, nothing is trying to be improved. In addition to this, substantial assistance could offer the expertise of the University of the Aegean, which works for thirty years on the island, but stakeholders do not wish to exploit it. A second paradox of this section is the estimate that the island of Chios is not characterized by geographical isolation. Knowing the location of the island and the transport policy applicable to its connection with the rest of Greece placement is considered rather contradictory.

- Seven questions (Tables 6.14 - 6.20) draw conclusions on policy measures for the development of religious tourism in Chios. More specifically:

**Table 6.14:** Vector's composition for the development of religious tourism in Chios

		Do you consider it is necessary to set up a new organization for the development of religious tourism in Chios?			Total
		Little	Quite	Very	
Sector:	1.Public Sector	30,8% (12)	59% (23)	10,3% (4)	100% (39)
	2.Church	7,3% (3)	56,1% (23)	36,6% (15)	100% (41)
	3.Tourist Companies	14% (13)	47,3% (44)	38,7% (36)	100% (93)
		16,2 (28)	52% (90)	31,8% (55)	100% (173)

Table 6.14 shows the percentages of the responses of the respondents according to the institution to which they belong and their estimates on the establishment of a vector for the development of religious tourism in Chios. It was observed that the establishment of a special vector for the development of religious tourism in Chios is “enough” necessary and more specifically at the Public Sector accounts for 59%, the Church represents 56.1% and finally the Tourist Companies a rate of 47.3%.

**Table 6.15:** Creation of adequate infrastructure

	How do you think it is necessary to create appropriate infrastructure?			Total
	Little	Quite	Very	
Sector: 1.Public Sector	23,1% (9)	28,2% (11)	48,7% (19)	100% (39)
2.Church	2,4% (1)	34,1% (14)	63,4% (26)	100% (41)
3.Tourist Companies	11,8% (11)	28% (26)	60,2% (56)	100% (93)
	12,1% (21)	29,5% (51)	58,4% (101)	100% (173)

Table 6.15 depicts the percentages of the responses of our sample according to the institution to which they belong and their estimates for creating appropriate infrastructure. It was marked that the majority of respondents believe “a lot” that we must create the appropriate infrastructure for tourists - pilgrims and more specifically we have the following percentages of 48.7% for the public sector, 63.4% for the Church, and 60.2% for Tourist Companies. It should be noted that the Public Sector presents a greater rate than the Church.

**Table 6.16:** Development and maintenance of religious monuments in Chios

	Do you think that the “exploitation” and the maintenance of religious monuments are necessary?		Total
	Yes	No	
Sector: 1.Public Sector	51,3% (20)	48,7 % (19)	100% (39)
2.Church	53,7 (22)	46,3 (19)	100% (41)
3.Tourist Companies	49,5 (46)	50,5 (47)	100% (93)
	50,9% (88)	49,1% (85)	100% (173)

At Table 6.16 the percentages of the responses of the respondents according to the institution to which they belong and their views on the use and maintenance of religious monuments of Chios are brought together. We noticed that the distribution of rates and the two alternative answers are almost equal. We could conclude that respondents do not associate heavily the exploitation of religious monuments with the development of religious tourism.

**Table 6.17:** Cost reduction measures

		Do you think that the measures concerning the reduction of costs are essential?		Total
		Yes	No	
Sector:	1.Public Sector	61,5% (24)	38,5% (15)	100% (39)
	2.Church	68,3% (28)	31,7% (13)	100% (41)
	3.Tourist Companies	53,8% (50)	46,2% (43)	100% (93)
		59% (102)	41% (71)	100% (173)

Table 6.17 shows the percentages of the answers of the respondents according to the institution to which they belong and their estimates of potential cost reduction measures for visitors to the area. We confirmed that the highest rates occurring in the affirmative for both the three operators, namely 61.5%, 68.3% and 53.8% respectively. The results of the table confirm the existence of a negative cost factor in the development of any form of tourism.

**Table 6.18:** Construction related website

		To what extent do you think it is necessary to make the relevant website?			Total
		Little	Quite	Very	
Sector:	1.Public Sector	5,1% (2)	35,9% (14)	59% (23)	100% (39)
	2.Church	12,2% (5)	34,1% (14)	53,7% (22)	100% (41)
	3.Tourist Companies	17,2% (16)	31,2% (29)	51,6% (48)	100% (93)
		13,3% (23)	32,9% (57)	53,8% (93)	100% (173)

Table 6.18 illustrates the percentages of the responses of the respondents according to the institution to which they belong and their views on the use of new technologies and particularly the construction of a site for the promotion of the island. There, it has become clear the role of new technologies in the tourism development of the region. The three operators believe "a lot" that should create the relevant website and specifically we have the following rates: 59% for the Public Sector, 53.7% for the Church and 51.6% for Tourist Companies.

**Table 6.19:** Production of printed promotional material and brochures

		To what extent do you consider that it is necessary to produce printed promotional material and brochures?			Total
		Little	Quite	Very	
Sector:	1. Public Sector	10,3% (4)	46,2% (18)	43,6% (17)	100% (39)
	2. Church	12,2% (5)	39% (16)	48,8% (20)	100% (41)
	3. Tourist Companies	15,1% (14)	47,3% (44)	37,6% (35)	100% (93)

	To what extent do you consider that it is necessary to produce printed promotional material and brochures?			Total
	Little	Quite	Very	
Sector: 1. Public Sector	10,3% (4)	46,2% (18)	43,6% (17)	100% (39)
2. Church	12,2% (5)	39% (16)	48,8% (20)	100% (41)
3. Tourist Companies	15,1% (14)	47,3% (44)	37,6% (35)	100% (93)
	13,3% (23)	45,1% (78)	41,6% (72)	100% (173)

Table 6.19 presents the percentages of the answers of our sample according to the institution to which they belong and their estimates for the promotion of the island with the production of printed promotional materials. It was observed that the traditional form of projection displays reducing preferences compared with modern electronic display. Particularly noteworthy to be mentioned are considered to be the percentages referred primarily to the responses "somewhat" and "very necessary" regarding the visibility through the forms of advertising and brochures. In response "quite" the percentages are 46.2%, 39% and 47.3% respectively, while the answer "very" has rates of 43.6%, 48.8% and 37.6%.

**Table 6.20:** Promotion through specific religious - cultural - information programs at internal and on abroad

	To what extent do you believe that it is needed the promotion through specific religious - cultural - information programs both in Greece and abroad?			Total
	Little	Quite	Very	
Sector: 1.Public Sector	12,8% (5)	41% (16)	46,2 (18)	100% (39)
2.Church	4,9% (2)	53,7% (22)	41,55 (17)	100% (41)
3.Tourist Companies	15,1% (14)	45,2% (42)	39,8% (37)	100% (93)
	12,1% (21)	46,2% (80)	41,6% (72)	100% (173)

Table 6.20 pools rates of views associated with promotion through specific religious - cultural - information programs inside and outside depending on the institution to which the respondent belongs. The answers which dominate are "quite" and follow the "very" with small differences.

In conclusion, as far as the policy measures that will be implemented for the development of religious tourism in Chios are concerned, it is highlighted both the creation of a vector suitable for such a development and the reduction of the cost of service. These two policy measures occupy the top positions in the estimates of respondents. Additionally, efforts to be improved the infrastructure of the island is another solution according to the respondents and it is followed by the recovery and the maintenance of religious - historical monuments. In

this section it was emphasized that the efforts of entities should target and base upon new technologies, with the ultimate aim of promoting Chios as a religious destination. Moreover, it is required to construct an appropriate website, as the majority of candidate tourists - pilgrims seek at electronics information on the potential tourist destination. However, it is emphasized, that traditional projection methods, such as brochures and advertising through television broadcasts both in Greece and abroad should not be overlooked by the new technology.

## **7. Conclusions and recommendations concerning the tourism policy**

It is generally accepted that religious tourism has grown considerably in recent years worldwide. The economic dimension of religious tourism and the opportunities for development that it provides have occupied the majority of states. These countries take initiatives highlighting religious monuments and religious festivals - events with the aim of increasing the size of religious tourism. The development of religious tourism in Greece is a key objective of the tourism policy of the country. Greece is an attractive tourist destination with cultural - historical richness and ideal climatic conditions. Religious tourism is an integral part of Greek tourism and so inextricably linked with the protection of local culture, and the protection of the natural and human environment.

Chios as a religious destination is not sufficiently developed. However, accentuating all the unique features, which give it more advantages over the others competing tourist destinations, it will be able to be one of the first preferences of tourists. Prerequisite is the cooperation of both local and state tourism organizations and local residents for an organized intervention in the promotion of these characteristics and the redefinition of the tourist identity and activity on the island. This requires the creation of a framework concerning the tourism policy at the local level, which will include a number of selected activities for the design and management of religious tourism, in order to highlight the general cultural value of religious monuments of Chios.

## **8. References**

- Anderson, T. W., (1996), *The New Statistical Analysis of Data*, New York, Springer-Verlag.
- Angelis, V. (2004), *Special Topics in Quantitative Analysis I*, Academic Tradition, Chios, Department of Business Administration, (in Greek).
- Angelis, V. (2004), *Special Topics in Quantitative Analysis II*, Academic Tradition, Chios, Department of Business Administration, (in Greek).
- Angelis, V. (2009), *Non Parametric Statistics*, Academic Tradition, Chios, Department of Business Administration, (in Greek).

- Avgerinos - Cologne, S. (2000), The role of tourism in the preservation and development of historic cities in Tsartas P. (ed.), *Tourism Development: Multidisciplinary Approaches*, Athens, Sextant, (in Greek).
- Bachleitner, R., and Zins, A. (1999), "Cultural Tourism in Rural Communities: The Residents' Perspective", *Journal of Business Research*, 44, 3, pp 199–209.
- Baloglu, S., & McCleary, K. W. (1999), "A model of destination image formation", *Annals of Tourism Research*, 26, 4, pp. 868-897.
- Beerli, A., Martin, J. D. (2004), "Factors influencing destination image", *Annals of Tourism Research*, 31, 3, pp. 657-681.
- Boniface, P. (1998), "Tourism culture", *Annals of Tourism Research*, 25, 3, pp. 46–749.
- Briassoulis, H. (2002), "Sustainable tourism and the question of the commons", *Annals of Tourism Research*, 29, 4, pp.1065–1085.
- Bowitz, E., and Ibenholt, K.(2009), "Economic impacts of cultural heritage – Research and perspectives", *Journal of Cultural Heritage*, Vol. 10, pp. 1-8.
- Coccosis , X., Tsartas, P. Grimpa, El. (2011), *Special and alternative forms of tourism*, Athens, Kritiki SA, (in Greek).
- Coccosis, C. and Tsartas, P. (2001), *Sustainable Tourism Development and the Environment, Tourism and Recreation*, Athens, Kritiki SA, (in Greek).
- Coccosis, H. & Mexa, A. (2004), *The Challenge of Tourism Carrying Capacity Assessment*, Ashgate Publishing: Aldershot.
- Drule, A.M., et al, (2012), A new perspective of non-religious motivations of visitors to sacred sites: evidence from Romania, *Procedia - Social and Behavioral Sciences*, Volume 62:431-435.
- Fleischer, A., (2000), The tourist behind the pilgrim in the Holy Land, *International Journal of Hospitality Management*, Vol. 19, Issue 3:311-326.
- Galani - Moutafi, B. (2002), *Research on Tourism in Greece and Cyprus*, Athens, Propompos.
- Gartner, W. C. (1994), "Image formation process", *Journal of Travel & Tourism Marketing*, 2, 2-3, pp. 191-216.
- Gee, C. Makens, J., and Dexter, C. (2001), *Travel and tourism industry*, Athens, Ellin Publisher.
- Gesler, W. (1996), "Lourdes: healing in a place of pilgrimage", *Health & Place*, 2, pp.95-105.
- Getz, D., and Carisen, J. (2005), "Family Business in Tourism State of the Art", *Annals of Tourism Research*, 32, pp. 237-258.
- Go, F. Lee, M. R. and Russo. A. P. (2003), "E-heritage in the globalizing society: enabling cross-cultural engagement", *Information Technology & Tourism*, 6, pp. 1-14.
- Greek National Tourism Organization. (2003), *In the footsteps of Paul the Apostle in Greece*, Athens.
- Gunn, C. (2000), *Tourism planning: basics, concepts, cases*, Routledge: New York and London.
- Gursoy, D., Jurowski, C., and Uysal, M. (2002), "Resident attitudes, A structural modeling approach", *Annals of Tourism Research*, 29, 1, pp.79–105.
- Halkias - Stephanou P. (2003), *The Monasteries of Chios*, Athens, Eptalophos, (in Greek)
- Harrison, J. (1997), Museums and Touristic Expectations, *Annals of Tourism Research*, 24, 1:23-40.
- Igoumenakis, N. (1991), *Tourism policy*, Athens, Interbooks, (in Greek)
- Igoumenakis, N. (2000), *Tourism and development*, Athens, Interbooks, (in Greek)
- Javeau, C. (2000), *The questionnaire survey. The handbook of good researcher*, Tzannone - Georgie, K. (ed. – trans.), Athens, Typothito, Dardanians, (in Greek).
- Jenkins, O.H. (1999), Understanding and Measuring Tourist Destination Images, *International Journal of Tourism Research*, Int. J. Tourism Res. 1, pp.1-15.

- Kyriazis , P. ( 1999), *The sociological research*, Athens, Greek Letters, (in Greek).
- Lagos, D. & Christogianni, P. (2006), *The development of religious tourism in Greece*, in Vogiatzis A. (ed.), *Festschrift Mary Negreponi - Delivanis*, Thessaloniki, University of Macedonia, (in Greek).
- Lagos, D. (2005), *Tourism Economics*, Athens, Kritiki SA, (in Greek).
- Lagos, D. (2011), *Management and Tourism Policy*, Lecture Notes for the Course "Designing Training in Tourism and Tourism Development Plan ", Chios, University of the Aegean, (in Greek).
- MacCannell, D. (2001), The commodification of culture, in Smith (ed), *Hosts and Guests Revisited*.
- Moira , P. (2009), *Religious tourism*, Athens, Interbooks, (in Greek).
- Morinis, E.A., (1992), Pilgrimage in the Hindu Tradition: A Case Study of West Bengal, Delhi, *Annals of Tourism Research*, Vol. 19:51-67.
- Morrison, A. M. (2001), *Strategic Planning Tourism Marketing*, 2th ed., Athens, Ellin. (in Greek).
- Nolan, M.L. and Nolan, S., (1992), Religious sites as tourism in Europe, *Annals of Tourism Research*, vol. 19, pp. 68-78.
- Polyzos, S. (2010), Religious Tourism in Greece: Spatial analysis and contribution to the development of disadvantaged regions Series Research Papers, 16, 9:203-222, (in Greek).
- Poulaki, P. (2013), *Prospects for the development of Religious Tourism in the Prefecture of Chios*, Thesis, Graduate Program "Design, Management and Tourism Policy, Chios, University of the Aegean, (in Greek).
- Raptis, Ch. (2007), *Religious tourism: opportunities and growth prospects in the Greek*, Thesis, Volos, EKKDA, (in Greek).
- Rodosthenous , P. (2012), *Religious and Pilgrimage Tourism in Cyprus . Pastoral Approach*, PhD Thesis, Thessaloniki, Aristotle University of Thessaloniki, School of Theology - Faculty of Theology, (in Greek).
- Spilani I., Vayanni H., (2003), *Sustainable Tourism: Utopia or necessity? The Role of New Forms of Tourism in the Aegean Islands*, University of Aegean 2003.
- Stephanou, A. (1963), *The Monuments of Chios*, vol 28:135-140, Piraeus, Zenon, (in Greek).
- Terkenli, T. (2002), "Landscapes of tourism: towards a global cultural economy of space?", *Tourism Geographies*, 4, 3, pp 227-254.
- Tsartas, P. (2010), *Greek tourism development: Features, investigations, recommendations*, Athens, Kritiki SA, (in Greek).
- Tsartas, P. (1996), *Tourists, Travel, Places: Sociological Approaches in Tourism*, Athens, Exantas.
- UNESCO. (2002a), *Cultural Landscapes. The Challenges of Conservation*, Ferrara, Unesco World Heritage Center.
- UNESCO. (2004), *Monitoring World Heritage*, Paris, Unesco World Heritage Center.
- UNWTO. (1995), *Tourism 2020 Vision*, Madrid.
- Venetsanopoulou, M. (2006), *The State Contribution to Tourism, Alternative Tourism*, Athens, Interbooks, (in Greek).
- Werthner, H., and Ricci, F. (2004), E-Commerce and Tourism, *Communications of the ACM*, 47, 12, pp. 101-105.
- World Economic Forum. (2011), "The Travel & Tourism Competitiveness Report 2011, Managing in a Time of Turbulence", *World Economic Forum*, Geneva, Switzerland.
- World Economic Forum. (2013), "The Travel & Tourism Competitiveness Report 2013, Managing in a Time of Turbulence", *World Economic Forum*, Geneva, Switzerland.
- Zolotas, G. (1921-1928), *History of Chios*, Volume C2, Athens. Sakellariou Publications, (in Greek) .

## **The social representations of immigrants held by Greek primary school pupils in the North Aegean Region**

### **Abstract:**

The aim of this paper is to describe the social representations held by third Grade primary school pupils in the North Aegean Region (Greece) regarding immigrants, as well as their ethnic origin, individual characteristics and social relationships. Our sample consisted of 170 indigenous pupils attending third Grade of Preliminary School in the North Aegean. 93 of them were boys (54.7%) and 77 girls (45.3%). The methods of collecting data chosen for approaching and conceptualizing the social representation of "immigrant" were pupils' drawings and structured interviews. Survey findings revealed that students distinguish immigrants according to their ethnic origin, their individual characteristics and have a positive representation for immigrants. They also identify social and economic problems as reasons why immigrants leave their home country and they are willing to make friends with them mainly due to immigrants' behaviour. However, some of the respondents link immigrants with violent, phobic and anti-social actions.

**Panagiotis Giavrimis<sup>1</sup>**

---

<sup>1</sup> Department of Sociology, University of the Aegean, Email: giavrimis@soc.aegean.gr

## 1. Introduction

Our century is characterized by rapid changes and developments. Many things that were regarded as obvious in the past are now abolished and a new cycle of social policies and conceptions of the past structures is now emerging. Within this paradigm variations and uncertainty in social and professional relations, in individual "biographies", in lifestyle, in the perception of reality, as well as in the ways of tackling serious problems. The experiential world of the individual and social surroundings, are not local - family entourage anymore, nor are they limited within national boundaries. Temporal and spatial distances are now becoming a relative concept, causing changes, increasing competition and allowing spatial separation of research and production of goods and services. At the same time, differentiation and stigmatisation practices are involved in everyday social interactions (Pavlou & Christopoulos 2004). The attitude of society and its members towards the "Other", the "Foreigner", the different, the immigrant is a major issue for collectivities and social cohesion.

The radical transformation of the socio-economic structure taking place in Greece, due to the economic and social crisis, is followed panting by the Greek education system, which attempts at political, institutional, social and educational level to propose theoretical and practical approaches to manage what is "different". New curricula for Primary Schools in Greece have incorporated EU Directive 2000/43/EC "for the implementation of equal treatment irrespective of racial or ethnic origin, religion or belief, disability, age or sexual orientation", as well as pedagogical-teaching findings for the development of educational policies for dealing with multiculturalism and diversity of the student population.

According to EU data (EU 2009), from a total of 842,000 immigrants in Greece, 546,000 are nationals of non-EU member countries, while according to the 2001 census, Albanians constitute 56% of the immigrant population, while those coming from non-emigration countries (Germany, Australia, the USA, etc.) are 2% (Kotzamanis & Stathakis 2001). Foreigners working in our country are at a productive age (15-64 years), while most are men (Zografakis et al. 2009: 43). Greece is preferred by immigrants coming from the Balkan countries as a residence country (Alexias 2001) and is the only country in the EU, where an immigrant group (Albanians) comes up to over 50% of all foreigners residing in the host country (Baldwin-Edwards & Kyriakou 2004). In 2011 the number of illegal immigrants in Greece was estimated around 391,478 (Maroukis 2012). According to Gropas and Triandafyllidou (2011) 18% of the student population are foreigners or repatriated (co-ethnic repatriated).

## 2. Social representations, identity and difference

The concept of social representations was introduced in social psychology by Moscovici in the early 60s. His research effort aimed at understanding the diversity of views among social subjects and was based on Durkheim's concept of collective representations (Moscovici, 1984). According to Moscovici, Durkheim's collective representations constitute a general categorization of social knowledge by synthesizing diverse and heterogeneous elements, which are not sufficiently clarified and cannot reflect the transformations and the diversity of modern societies (Moscovici, 1984). Durkheim also refers to the homogeneity of views and knowledge, which constitutes the link of societies, while representations are of a static nature (Lampridis 2004). According to Moscovici (1973), "social representations constitute a system of ideas, values and practices with dual function that, firstly, allows individuals to direct and control themselves in their interaction with the material and social world and, secondly, enables communication among members of a community by providing them with a code for social interaction and a code for identifying and clearly classifying the various aspects of their world and individual and collective history". Social representations are structures in the process of individual's adjustment in the social context, as well as a way of influencing the socio-cognitive activities of a person, which when coming to a mismatch with social practices can be transformed or change (Flament 1989). The social representation theory places an emphasis on the dynamics both within the inner group of the individual and the in-between group, as well as on their influence in shaping public knowledge. These representations are not just reproducing cognitive patterns of the social construct, but also a dynamic process, where the individual is the intermediary in their manufacturing process (Moscovici 2001). A result of the individual socio-cognitive intrusiveness and social knowledge management is the diversity of representations that can emerge and be counter (Farr & Moscovici 1984). The concept of "cognitive multiphase" is what so vividly offers this contradiction (Provencher 2011).

Social representations support and define individual interactions with the context by understanding it, familiarizing oneself with the "unknown" and bringing together the conceptualized object, the individual and the social group (Stewart & Lacassagne 2005). Two processes characterize the formation of social representations. In the former ("focus"), the individual familiarizes oneself with the "unknown" highlighting its characteristics, while in the latter ("objectification") the abstract social object becomes more concrete, so that it can be socially understood and communicated (Moscovici 1981). Criticism against social

representations theory focuses on its broadness and ambiguity, its social determinism and the cognitive simplification of complex social knowledge and processes (Raudsepp 2005).

Social representations are diffused or disseminated or propagated (Moscovici 1981) and through them people are socially identified. Social identity is an interactions achievement that is defined and redefined throughout one's lifetime (Jenkins 2006; 1997). Tsaousis (1997) referred to social identity pointing out that groups determine differentiation cultural elements and form the boundaries of the self-determined group as a separate entity. Elements such as common origin, common language and religion, as well as common traditions consolidate national identity as determinants of the nation.

Individuals integrate themselves into specific groupings accepting these elements as determinants of their identity (Oakes et al. 1994), differentiating themselves at the same time from the "Other". Foucault regards the "other" as a structure, which is a necessary condition for the consolidation and existence of social body as an entity (Strozier 2002), while the wider group sees itself as the center of the world and views other groups as insignificant or inferior (Kanakidou & Papagianni 1998:28). Social representations of the "we"- "others" pattern define differentiating elements that characterize us and are distinguishing traits also identified by the "others" or they create conditions to reject the "others" rather than assure "us". Integration elements and similarities in a group are the "sources from which criteria are selected", which form the basis for the identification and discrimination of social groups (Ventura 1994:67). Several times emphasis placed on discriminating individuals according to their social status characteristics (language, social origin, race, gender, religious beliefs) leads to stigmatisation (Major & O'Brien 2005) and to hierarchies and classifications, while at the same time other social and "natural" similarities are hidden (Sytziouki 1998). Elements of otherness "are registered in social subjects through learning, practice and integration, as values and stereotypical information of the most familiar culture" (Kyriakakis & Michaelidou 2005).

Relevant reference has been made by Tsaousis (1997) regarding determination of Greek identity, where sometimes "us" is identified as a starting point and other times "the others." But apart from placements in social space, they also have an impact on the attitude, behaviour (Markus et al., 1996) and the assessment of members of one group towards another group (Goffman 1963), without directly supporting the attributive nature of social representations (Wagner 1993).

The aim of this paper is to describe the social representations held by third Grade primary school pupils in the North Aegean Region (Greece) regarding immigrants, as well as their ethnic origin, individual characteristics and social relationships. Immigrant population

has not significantly decreased during the last few years, despite economic crisis, while lately stereotypes and prejudices of the past are reappearing. Furthermore, concerning third Grade preliminary school students participating in the present research it should be taken into account that: a) development of racial differentiation has initiated since pre-school age (Smith et al. 1998), b) those students have spent sufficient time in the education system and c) they are socialised in this particular region of Greece (North Aegean Region), which still serves as a gateway and residence place for many immigrants.

### **3. Method**

#### *3.1 Sample*

The sample taken consisted of 170 indigenous third Grade Preliminary school students in the North Aegean. 93 children were boys (54.7%) and 77 girls (45.3%). The largest percentage of sample came from non-urban areas [114 (66.5%)], while 56 children (32.9%) came from urban areas.

#### *3.2 Data Collection Instruments*

The main data collection instruments chosen for approaching and conceptualizing the social representation of "immigrant" were children's drawings and structured interview. Children's drawings is the gateway to imaginary representations, to sentimentality, to internal behaviour and symbolism of the individual (De Meredieu 1981). Moreover, the study of graphical representations of "immigrant" highlights the latent socio-cultural dimensions of the subject and their corresponding perceptions, attitudes, stereotypes and prejudices, showcasing social representations for the reality of the dominant group. Elements that will be studied for the drawing of immigrant is the size, detailed imaging, expression and choice of colours.

Structured interview was necessary in the attempt to interpret imaging representation of the immigrant. Structured interview includes – apart from demographic data – clarifying questions concerning the representation of "immigrant" (sex, country of origin, reasons for moving) and his social behaviour (positive or negative behaviours, social contacts with natives).

### **4. Findings**

From the very first stages of development, the child comes into contact with the "other", develops the first building blocks of its individual-personal identity, enters and functions as a member of a first group, the family and forms the first evidence identifying it in its own group

(regarding elements such as gender, race, religion, etc.) and thus developing elements of social identity and differentiating the "I" of the "other."

#### *4.1 Individual characteristics of the immigrant*

Analyzing data drawn from children's drawings, it was found that 78.2 % of students reflect immigrants from Albania, while other illustrated immigrants come from various countries (Bulgaria, Russia, Africa, Australia, Germany, etc.). Another approach in immigrants' countries of origin shows that 154 (90.6 %) children's drawings depict people originating from mainly migrating countries in the Balkans, Eastern Europe, Asia or Africa, while 9.6 % of drawings portray immigrants originating from developed industrial countries, such as Germany, Italy, Australia, the USA, etc.

As far as gender differences are concerned, male appears to be the dominant immigrant profile (57.5 %). Data reveal that there is an association of immigrant's gender with student's gender [ $\chi^2(1) = 62.707, p = 0.000$ ].

Most children have met an migrant in their immediate environment (19.1 % in the neighbourhood, 13.2 % at school, 30.7 % on the road and 1.7 % elsewhere), as well as in other " environments " (0.4 % in books, 1.7 % on TV), while a considerable percentage replied "everywhere" (31.9 %).

Children generally attribute to "immigrants" good features, based on criteria such as offering help (32.9 %), non-use of violence (11.4 %), acquaintance - friendship (8.3 %), expression of love (6%), the ability to obey (4%), performance, talent (3.6) and evil features based on criteria such as bad behaviour (beating - fighting (13.8 %), disobedience (3.4 %), immaturity (6.9 %), negative social characteristics (does not work (2.5 %), bad acquaintances (5.2 %), stealing (3.4 %), such as diversification of the "foreign" (4.5 %).

#### *4.2 Morphological characteristics of children's drawings*

In the majority (52.4 %) of children's drawings "immigrant" is depicted as a "very large" figure, while a significant number of drawings (28.8 %) portray immigrant as a "small" or "tiny" figure, suggesting the importance attributed to the person-individual. Tiny figures are indications of inadequacy and inferiority (Burkitt et al. 2004). Furthermore, most figures are placed on the center and top of the drawing paper. Nine out of ten students focus on immigrant's figure without another person nearby and represent him/her drawing the full body. In the vast majority of children's drawings (> 88 %) there is no enriched environment (e.g. home, sun, tree).

An interesting analysis can also be drawn from children's drawings when studying colour selection of children for the display of "immigrants". Although the majority (71.8 %) of children choose bright colours (red, yellow, green, pink, orange, etc.), a significant number of children (48) selects dull dark colours or black and white (28.2%). As far as expression is concerned, 56.5 % of drawings are happy-smiling figures, while 43.5 % are unexpressed or wild. Although the choice of bright colours can be connected to the positive depiction of foreign, the study of these children's drawings also revealed negative examples of simultaneous negative depiction of "immigrants" (as wild, violent, robbers, etc.). The percentage of children's drawings with choice of black and white or dull colours are usually signs of negative or emotionally loaded representation (Burkitt et al. 2004). Results suggest that there is a correlation between colour representations and expressions at a statistically significant level [ $\chi^2(1) = 4.403, p = 0.036$ ]. Depictions with brighter colours are mainly associated with smiling faces, while dark - dull colours with wild expressions. Moreover, this correlation seems to be stronger in mainly emigration countries [ $\chi^2(1) = 3.950, p = 0.047$ ] compared with the other, where correlation is very low.

#### *4.3 Reasons for emigration and social networking*

Regarding reasons for emigration from their country of origin, children indicate that most immigrants (62.4 %) were forced to emigrate due to factors linked with the situation in the country of origin (poverty, conflicts, persecutions, etc.), while a smaller percentage of students (37.6 %) stated that they were motivated by the existing conditions in Greece relating to labour and standard of living.

Finally, most of the children (85.6 % - 155 students) gave positive responses to the questions whether they have an immigrant friend. Reasons for making friends focus on good behaviour of immigrants (51.6 %), school performance (3.5 %) and offer for help (8.3 %). A small but notable percentage replied "no" (14.4 % - 26 students). The main reasons for refusal are based on fear (27.3 %), poor behaviour (22.5 %), trust - honesty (14 %) and the diversity of the "foreign" (4.5 %).

### **5. Debate-Conclusions**

According to the results of children's drawings analysis and interviews, students share common knowledge about immigrants in their social representations, with generally positive attitudes towards them. In their drawings students portray the profile of immigrant mostly as a person coming from Albania and other emigration countries, who is male and lives in the

immediate environment. He is diversified regarding personal traits in relation to the use of violence or friendship or love or unemployment. The nationality of depicted immigrants is in accordance with the knowledge students receive through social reality. As a matter of fact, according to the EU data (2011) for 2009, the largest percentage of immigrants in Greece were nationals of non- EU member states, while according to the 2001 census Albanians constitute the majority of the immigrant population in Greece. As far as gender variations are concerned, these are related to gender distribution within the sample itself, as in the representation of the human, there is a primary gender identification of the subject (Tomas & Silk 1990).

By studying the size and traits of immigrants depicted in children's drawings, one can view first the transition of Greece into a multicultural society and second the representations of native students relating to the personality of immigrants. Moreover, the "purity" in depicting the main subject is related to the importance attributed by students. According to Bella (2000: 126), "from the experiences drawn from the environment, the child isolates each time those elements most vividly expressing it." Coloured and expressive choices of students in their drawings are consistent with the above findings, highlighting the differences among immigrants, as well as their positive attitude towards them, since students depict them mostly as smiling with bright and vivid colours. In the group of immigrants from mainly emigration countries, there is a diversification in colours and expressions, which showcases the more intense social charge of the group, compared to other immigrants, while part of immigrants is identified with violent, phobic and anti-social actions. Native population identifies immigrant with the foreigner coming from these countries, which emerges from Public Issue survey (2009), while causing several times negative feelings and behaviours (Galanis 1993; Chantzi 2007). The socially created reality associated with immigrants and their integration in Greece can be seen by the accumulation of morphological data in their illustration, giving meaning and conceptualizing the new social subject. The figure of the immigrant is a socially legitimate representation, which has been transformed through the living experience of students.

Students are sufficiently aware of the causes of migration, associated with the country of origin (poverty, unemployment, persecution, etc.) or with positive factors relating to the host country (better working conditions, environment and standard of living), which can be found in Greek literature (Lyberaki, 2002; Nikolinakos 1973; Tzortzopoulou 2005). Children come into contact with immigrants at school, as well as in local communities, as these are involved in rural or urban labour market (Kasimis et al. 2002), while North Aegean Islands

are gateways for immigrants and several of them are places of residence for many immigrants. Moreover, local media (digital and print) make references to events associated with immigrants. Therefore, common living experience, conceptualization and practices of students towards immigrants shape their social representations, supporting and defining their interactions (Stewart & Lacassagne 2005), but also highlighting their specific attitudes and behaviours.

Children appear to have positive attitude towards friendship with an immigrant, setting as key parameter his/her behavior and the lack of fear. According to research conducted by Unicef (2001), primary school students are more positive to making friends with foreigners than other students, while 75.6% say that they already have a friend who is immigrant. Children's social representations for immigrants come into conflict with the ambivalence of Greek society (although in most cases they have a negative connotation) (Galanis 1993; Kavounidis et al. 2008; Lyberaki, 2002 Tsigkanou 2010; VPRC 2007). Wagner (1993) points out that social knowledge influences individual behavior, but does not determine it on the basis of a deterministic model. The importance of an individual's participation in intercultural groups, either as a supporter or as supported, can provide students with valuable information and resources and contribute to their social identification (Breakwell 1992) in a multicultural context while at the same time having an impact on the immigrants' integration in the host country (Padilla & Perez 2003).

In conclusion, students have a positive representation of immigrants coming from Balkan, Eastern European and Asian countries. The main reasons of emigration identified by children are social and economic problems and they appear to be positive to making friends with immigrants, setting as main criterion immigrants' behaviour. However, immigrants are also linked by children with violent, phobic and anti-social actions. Students' social representations define and redefine the communication framework with immigrants, facilitate better understanding and interpretation of migration in a multicultural society and establish guarantees for accepting diversity. Moreover, they capture common knowledge and transformational social practices, which affect co-formulations of identities of the two respective parts (native - immigrant). The composition of elements of students' social representations highlights the dynamics of the experienced multicultural social reality, but also the conceptualization and the way of legitimizing diversity. Social and educational policy should focus on activities and processes that improve the image of immigrants and eliminate stigmatisation, leading in this way to a society that will respect diversity and intercultural relations.

## 6. References

- Alexias G. (2001) "Social perception and study the phenomenon of immigration - an empirical study of audit procedures". In Amitsis G., Lazaridis G. (eds.), *Legal and sociopolitical dimensions of migration in Greece*. Athens: Papazisis, pp. 255 – 286.
- Baldwin-Edwards M., Kyriakou, G. (2004) *Statistical Data On Immigrants In Greece: An Analytic Study Of Available Data And Recommendations For Conformity With European Union Standards*. Panteion University and Mediterranean Migration Observatory.
- Bellas T. (2000) *The drawing of the child*. Athens: Ellinika Grammata.
- Breakwell G. (1992) *Social Representations and Social Identity*. Position paper presented at the First International Conference on Social Representations. Ravello, Italy, October, 1992.
- Burkitt E., Barrett M., Davis, A. (2004) "The effect of affective characterizations on the use of size and colour in drawings produced by children in the absence of a model". *Educational Psychology*, Vol. 24 No. 3, pp. 315–344.
- Chantzi A. (2007) "Stereotype content and contact effect". *11th Panhellenic Conference of Psychological Research*. Rethymno, Crete April 18-22.
- De Meredieu F. (1981) *Children's drawing*. Athens: Ypodomi.
- EU (2009) *Immigration by main citizenship group*. ([http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php?title=File:Immigration\\_by\\_main\\_citizenship\\_group,\\_2009\\_%281%29.png&filetimestamp=20111125175238](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Immigration_by_main_citizenship_group,_2009_%281%29.png&filetimestamp=20111125175238)).
- EU (2011) *Immigration by main citizenship group, 2009*. ([http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php?title=File:Immigration\\_by\\_main\\_citizenship\\_group,\\_2009\\_%281%29.png&filetimestamp=20111125175238](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Immigration_by_main_citizenship_group,_2009_%281%29.png&filetimestamp=20111125175238)).
- Farr R. M., Moscovici S. (1984) *Social Representations*. New York: Cambridge University Press.
- Flament C. (1989) Structure et dynamique des représentations sociales. In D. Jodelet (Ed.), *Les représentations sociales* (pp. 204-219) Paris: Presses Universitaires de France.
- Galanis GN (1993) The opinion of people of Ioannina about the Albanians and Northern Epirotes in Greece. *Yearbook of the Department of Primary Education*, Vol. 6, pp. 45-104.
- Goffman E. (1963) *Stigma: Notes on the management of spoiled identity*. London: Penguin.
- Gropas R., Triandafyllidou A. (2011) "Greek education policy and the challenge of migration: an 'intercultural' view of assimilation". *Race Ethnicity and Education*, Vol. 14 No.3, pp. 399-419.
- Jenkins R. (1997) *Rethinking Ethnicity: Arguments and explanations*. London: Sage Publications.
- Jenkins R. (2006) *Social Identity*. Aarhus: Academica.
- Kanakidou E., Papagianni B. (1998) *Intercultural Education*. Athens: Ellinika Grammata.
- Kasimis C, Nitsiakos V., Zakopoulou E., Papadopoulos A.G. (2002) *The Implications of the Settlement and the Employment of Immigrants in Rural Greece* (Final Report). University of Patras/University of Ioannina.
- Kavounidis T., Konti A., Lianos T., Fakiolas P. (2008) *Immigration in Greece: Experiences Policies Prospects*. Athens: IMEPO.
- Kotzamanis V.D., Stathakis (2008) "Human geography of foreigners in Hellas: A first survey of their clustering, their composition and their demographic and

- economic characteristics". In Gospondini A. (ed.), *Dialogues for spatial planning and development*. Athens: Kritiki, pp. 411-452.
- Kyriakakis J., Michaelidou M. (Ed.) (2005) *Others' approach: Ideology, methodology and interpretative practice*. Athens: Metaixmio.
- Lampridis E. (2004) *Stereotype, Prejudice and Social identity*. Athens: Gutenberg.
- Lyberaki A. (2002) "Economic immigrants in Greece: prosperity and misunderstanding". Greek-Holland Seminar: *Integration of immigrants*. Athens, 22-23 October 2001, IPODE.
- Major B. N., O'Brien L. T. (2005)** "The social psychology of stigma". *Annual Review of Psychology*, Vol. 56, pp. 393-421.
- Markus H. R., Kitayama S., Heiman R. J. (1996) "Culture and "basic" psychological principles". In Higgins E.T., Kruglanski A.W. (Eds.), *Social psychology: Handbook of basic principles*. New York: Guilford, pp. 857-913.
- Maroukis Th. (2012) *The number of irregular migrants in Greece at the end of 2010 and 2011*. ([http://www.eliamep.gr/wp-content/uploads/2012/06/Briefing-Notes\\_21\\_June-2012\\_Thanos-Maroukis.pdf](http://www.eliamep.gr/wp-content/uploads/2012/06/Briefing-Notes_21_June-2012_Thanos-Maroukis.pdf))
- Moscovici S. (1973) "Foreword". In C. Herzlich (Ed.), *Health and illness: A social psychological analysis*. London: Academic Press, pp. ix-xiv.
- Moscovici S. (1981) "On social representations". In Forgas J. P. (Ed.), *Social cognition. Perspectives on everyday understanding*. London: Academic Press, pp. 181 – 209.
- Moscovici S. (1984) "The myth of the Lonely Paradigm: A rejoinder". *Social Research*, Vol. 51, pp. 939-968.
- Moscovici S. (2001) "Why a theory of social representations?" In Deaux K., Philogene G. (Eds.), *Representations of the social: Bridging theoretical traditions*. Oxford: Blackwell, pp. 8 – 35.
- Nikolinakos M. (1973) *Capitalism and Immigration*. Athens: Papazisis
- Oakes P. J., Haslam S.A., Turner J. C. (1994) *Stereotyping and social reality*. Oxford: Blackwell.
- Padilla A., Perez W. (2003) "Acculturation, social identity, and social cognition: A new perspective". *Hispanic Journal of Behavioral Sciences*, Vol. 25 No.1, pp. 35-55
- Pavlou M., Christopoulos D. (2004) (Eds) *Greece of immigration: Social participation, rights, and citizenship*. Athens: Kritiki & KEMO.
- Provencher C. (2011) "Towards a better understanding of cognitive polyphasia". *Journal for the Theory of Social Behaviour*, Vol. 41 No.4, pp. 377–395.
- Public Issue (2009) *The attitudes of Greeks towards immigration*. (<http://www.publicissue.gr/wp-content/uploads/2009/07/immigration-survey-2009.pdf>).
- Raudsepp M. (2005) "Why is it so difficult to understand the theory of Social Representations?". *Culture, Psychology*, Vol. 11 No.4, pp. 455-468.
- Smith K., Cowie H., Blades M. (1998) *Understanding children's development*. Oxford (U.K.):Blackwell.
- Stewart I., Lacassagne M. F. (2005) "Social representations as a diagnostic tool for identifying cultural and other group differences". *Psychology and Marketing*, Vol. 22 No. 9, pp. 721–738.
- Strozier R. (2002)** Foucault, *subjectivity and identity. Historical constructions of subject and self*. Detroit: Wayne State University Press.
- Sytziouki M. (1998) "Comparative assessment of trends and prospects of multiculturalism in education: The Greek context and examples of Canada and Australia". In Charris P.K., Petroulakis NB, Nicodemus S. (eds), *Greek Pedagogy and Educational Research*. Athens: Atrapos, pp. 709-717.
- Thomas G., Silk A. (1990) *An Introduction to the Psychology of Children's Drawings*.

(Trans. F. Bonoti) Athens: Kastaniotis.

Tsaousis D. C. (1997) *Social demography*. Athens: Gutenberg

Tsigkanou I. (Ed.) (2010) *European Social Survey*. Athens: EKKE.

([www.ekke.gr/html/gr/NewsEvents/ESS4\\_results.pdf](http://www.ekke.gr/html/gr/NewsEvents/ESS4_results.pdf)).

Tzortzopoulou M. (2005) "Immigration to Greece: The key features of the immigrants". In Ziomas D., Kappa C., Papaliou O., Papapetrou G., Fagadaki E. (Ed.), *The social portrait of Greece 2003-2004*. Athens: EKKE, pp. 67-85.

Unicef (2001) *Discrimination - Racism - Xenophobia in Greek educational system*. (<http://www.unicef.gr/reports/racism.php>).

Ventura L. (1994) *Immigration and Nation: Transformations in collective and social positions*. Athens: EMNE.

VPRC (2007) *The Greek public beliefs and attitudes towards immigrants*. Athens

Wagner, W. (1993) *Can Representations explain social behaviour? A Discussion of Social representations as rational systems*. *Social Representations*, Vol. 2 No. 3, pp. 236-249. ([http://www.psych.lse.ac.uk/psr/PSR1993/2\\_1993Wagne.pdf](http://www.psych.lse.ac.uk/psr/PSR1993/2_1993Wagne.pdf)).

Zografakis S., Kontis A., Mitrakos Th. (2009) *The Steps of Immigrants in the Greek Economy*. Athens: IMEPO.

## Book Reviews Book Presentations

### NEW FROM EDWARD ELGAR PUBLISHING

# The Innovation Union in Europe

## A Socio-Economic Perspective on EU Integration

Edited by **Elias G. Carayannis**, Professor of Science, Technology, Innovation and Entrepreneurship, School of Business, George Washington University, US and **George M. Korres**, Associate Professor, Department of Geography, University of the Aegean, Greece

One of the most important economic events in recent decades has been the ongoing process of European integration. This book provides a basic yet rigorous understanding of the current issues and problems of economic integration and innovation in Europe, and argues that national or regional economic development depends mainly on technical change, social and human capital, and knowledge creation and diffusion. This is clearly evident in the role of the quadruple innovation helix of government, university, industry and civil society.

Uniquely, the book examines the many aspects and consequences of the integration process that are obscure or as yet under-researched. The authors explore a wide range of topics, methodologies and perspectives in order to provide a stimulating and wide-ranging analysis.

*The Innovation Union in Europe* will be of interest to students, economic theorists, empirical and social scientists, and policy makers as well as the informed general reader.

**Contributors:** E.G. Carayannis, U. Grásjó, C. Karlsson, A. Kokkinou, G.M. Korres, A. Lagendijk, A.O. Nakamura, L.I. Nakamura, M. Nakamura, K. Varró, P. Warda

August 2013 208 pp Hardback 978 0 85793 990 6 \$110.00 • **Elgaronline** 978 0 85793 991 3  
Science, Innovation, Technology and Entrepreneurship series



#### TO ORDER THIS TITLE, PLEASE CONTACT:

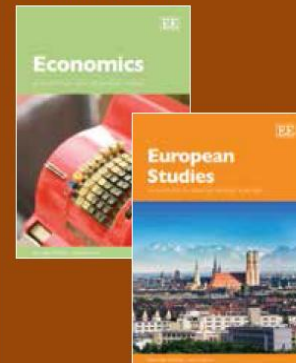
Edward Elgar Publishing Inc.  
PO Box 960  
Herdon, VA 20172-0960 US  
Tel: (800) 390-3149  
Fax: (703) 996-1010  
elgar.orders@presswarehouse.com

#### FOR INFORMATION, PLEASE CONTACT:

The Sales & Marketing Department  
Edward Elgar Publishing Inc.  
The William Pratt House  
9 Dewey Court  
Northampton, MA 01060-3815 US  
Tel: (413) 584-5551  
Fax: (413) 584-9933  
elgarsales@e-elgar.com

#### www.e-elgar.com

FOR FREE CATALOGS EMAIL:  
elgarinfo@e-elgar.com



EDWARD ELGAR  
Publishing  
www.e-elgar.com

#### Ordering eBooks

Elgaronline

www.elgaronline.com

Our book and journal content platform for libraries.

Email [elgarsales@e-elgar.com](mailto:elgarsales@e-elgar.com) for more information

Our eBooks are available for individuals through Google ebookstore and eBooks.com and for libraries through EBSCOhost, Ebrary, EBL, Mylibrary and Dawsonera.  
All inquiries about purchasing collections email [elgarsales@e-elgar.com](mailto:elgarsales@e-elgar.com)





### Important deadlines

Full paper submission: 30.5.2014

Notification of acceptance  
referee's amendments: 31.5.2014

Preliminary program: 1.6.2014

Final papers & program: 28.6.2014

Conference: July 4<sup>th</sup> – 7<sup>th</sup>, 2014

### Registration

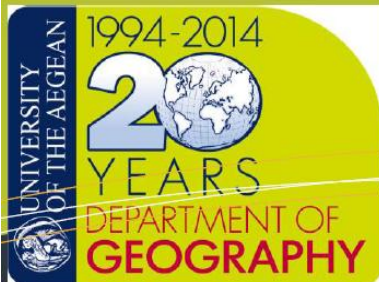
	Early	Late
Full Registration	100 €	200 €
Research Students	40 €	80 €
Accompanying Person	50 €	90 €

Early Registration: Until 16.6.2014

Late Registration: Until 30.6.2014

Full conference registration includes

- coffee breaks
- conference material
- \*conference proceedings
- journal publication expenses



## Socio-Economic Sustainability, Regional Development and Spatial Planning: European and International Dimensions & Perspectives

<http://lesvosconference.yolasite.com/>

July 4<sup>th</sup> – 7<sup>th</sup>, 2014, Mytilene, Lesvos, Greece

Conference jointly organized by:

- The Laboratory of Economic Geography, Regional Development and Territorial Planning, Department of Geography, University of the Aegean, <http://www.geo.aegean.gr/greek/labs/research/economic.htm>
- "Ergaxia", Sociology of Labor Academic Laboratory, Department of Sociology, University of the Aegean, <http://www.aegean.gr/ergaxia/Ergaxia.html>
- International Sociological Association (ISA), Research Committee on Sociotechnics /Sociological Practice (RC26), [www.ISA-RC26.org](http://www.ISA-RC26.org), [www.RC26ISA.WORDPRESS.com](http://www.RC26ISA.WORDPRESS.com)

The conference will accommodate 11 book series and refereed journals, indexed by *EBSCO*, *DOAJ* (*Director of Open Access Journal*), *Cabell's* Directory, *Copernicus* Index, *RePEc*, *Scopus* index and the *EconLit* journal-bases.

Full papers submission and any related info or queries:

Dr. Aikaterini Kokkinou: [k.kokkinou@aegean.gr](mailto:k.kokkinou@aegean.gr)

Prof. Dr. Elias Kourliouros: [e.kourliouros@aegean.gr](mailto:e.kourliouros@aegean.gr)

Prof. Dr. George Korres: [gkorres@geo.aegean.gr](mailto:gkorres@geo.aegean.gr)

Prof. Dr. George Tsobanoglou: [g.tsobanoglou@soc.aegean.gr](mailto:g.tsobanoglou@soc.aegean.gr)

<http://lesvosconference.yolasite.com/>

# Journal of Regional & Socio-Economic Issues

## Call for Papers

Journal of Regional & Socio -Economic Issues (Print) ISSN 2049 -1395

Journal of Regional & Socio -Economic Issues (Online) ISSN 2049 -1409

The Journal of Regional Socio -Economics Issues (JRSEI, *indexed by Copernicus Index, DOAJ (Director of Open Access Journals) BSCO & Cambell Index*) is scheduled to be published three times a year. Articles are now welcome for the forthcoming issue of this journal (JRSEI). The benefits of publishing in the Journal of Regional Socio -Economics Issues (JRSEI) include:

1. Fast publication times: your paper will appear online as soon as it is ready, in advance of print version
2. Excellent editorial standards
3. Free color electronic version
4. Free on-line access to every issue of the journal
5. Rigorous, fast and constructive peer review process
6. The journal will be indexed in scientific databases.
7. All abstracts and full text are available free on -line to all main universities/institutions worldwide, ensuring promotion to the widest possible audience.

For full paper submission guidelines, please visit the webpage:

[www.jrsei.yolasite.com/](http://www.jrsei.yolasite.com/)

For further inquiry, please contact:

Professor Dr. George M. Korres, JRSEI Managing and Chief Editor

Professor, University of the Aegean, Department of Geography, Email:

[gkorres@geo.aegean.gr](mailto:gkorres@geo.aegean.gr)

Journal of Regional & Socio-Economic Issues (JRSEI)

## Instructions to Authors

**Journal of Regional & Socio-Economic Issues (Print) ISSN 2049-1395**

**Journal of Regional & Socio-Economic Issues (Online) ISSN 2049-1409**

### **Aims of the Journal:**

Journal of Regional Socio-Economic Issues (JRSEI) is an international multidisciplinary refereed journal the purpose of which is to present manuscripts that are linked to all aspects of regional socio-economic and all related issues. The journal indexed by Copernicus Index, DOAJ (Director of Open Access Journal), EBSCO & Cabell's Index and welcomes all points of view and perspectives and encourages original research or applied study in any of the areas listed above. The views expressed in this journal are the personal views of the authors and do not necessarily reflect the views of JRSEI journal. The journal invites contributions from both academic and industry scholars. If you have any questions about the journal, please contact the chief editor. Electronic submissions are highly encouraged (mail to: [gkorres@geo.aegean.gr](mailto:gkorres@geo.aegean.gr)).

### **Review Process:**

Each suitable article is blind-reviewed by two members of the editorial review board. A recommendation is then made by the Editor-in-Chief. The final decision is made by the Editor-in-Chief. If a revision is recommended, the revised paper is sent for a final approval to the Chief-Editor.

### **Instructions to Authors:**

In order for a paper to be submitted to the Journal for publication, the following should be taken into consideration:

1. All papers must be in English.
2. Papers for publication should be sent both in electronic format (MS Word and MS Excel for charts) to the Chief Editor (mail to: [gkorres@geo.aegean.gr](mailto:gkorres@geo.aegean.gr)).
3. The Editor takes for granted that:
  - the submitted paper contains original, unpublished work that is not under consideration for publication elsewhere;
  - authors have secured any kind of permission necessary for the publication from all potential co-authors, along with having agreed the order of names for publication;
  - authors hold the copyright, have secured permission for the potential reproduction of original or derived material and are ready to transfer copyright of the submitted paper to the publisher, upon acceptance for publication.
4. The cover page should include the name of the author and coauthors, their affiliations, and the JEL category under which the paper primarily belongs. The cover page is the only page of the manuscript on which the names and affiliations of the authors and coauthors should be listed.
5. Submission of manuscripts in electronic form: Authors must submit electronic manuscripts. The submission should only contain the file(s) of the papers submitted for publication, in MS Word and MS Excel for charts. If more than one file, a compressed file (.zip) should be submitted instead.

6. Formatting requirements: Everything should be double-spaced (main text, footnotes, bibliography, etc.)
7. Footnotes should be as few and as short as possible (preferably devoid of tables or formulae), marked in the manuscript by superscripts in Arabic figures.
8. Formulae should be numbered by consecutive, Arabic figures (such as (1), (2), etc.), placed on the right-hand side of the page.
9. Tables and Figures should be numbered consecutively in Arabic figures and have a heading and a title.
10. References are citations of literature referred to in the text and should not appear as footnotes. Abbreviations are only accepted in the authors' first names. Place all references, alphabetized by author's last name (with last name first), on **separate pages** in a section titled "References" at the end of the paper. Indent the second and subsequent lines of each reference.

### **Journals**

Include all authors, article title, full title of journal, volume number, issue number, month, year, and full page numbers. Example:

Michael Mahmood. "A Multilevel Government Model of Deficits and Inflation," *Economic Journal*, 24, 2, June 2010, pp. 18-30.

### **Books**

Include name of author, full title of book, edition, city and state (or country) of publisher, name of publisher, and year of publication. Example:

Shapiro, John. *Macroeconomics*, 4th ed., New York, NY: Harcourt Brace Jovanovich, 2009.

Use the following style when an author's work appears in a publication edited by another: George Summers, "Public Policy Implications of Declining Old-Age Mortality," in Gary ed., *Health and Income*, Washington, DC: The Brookings Institution, 1987, pp. 19-58.

### **Public Documents**

Include the department or agency responsible for the document, title, any further description such as number in a series, city and state (or country) of publication, publisher, and date of publication. Example:

World Bank. *Educational Attainment of Workers*, Special Labor Force Report 186, Washington, 2010.