

COOPERATION BETWEEN UNIVERSITY AND INDUSTRY. GOOD PRACTICES IN EUROPEAN COUNTRIES-THE CASE OF GREECE

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Abstract

While there may be few exceptions, co-operation between industry and academia in Europe is still in the early stages of development. Studies have shown that Industry – Academia in Europe is influenced by a large number of factors including the perception of benefits coming from these collaborations as well as barriers to and drivers of such co-operation. Cooperation between universities and industry needs to be intensified by gearing it more effectively towards innovation, new business start-ups and, more generally, the transfer and dissemination of knowledge. Within the project Tempus IV-6TH “UNITE PROJECT T.E.I. OF PIRAEUS” University and Industry for the Modernization of the Textile manufacturing sector in Belarus, the scientific team of the Liaison Office of the T.E.I. Piraeus conducted a study concerning the good practices existing in Europe for the connection between education and industry. It analyzed specifically the patterns in Greece, presented the higher education system in Greece, the Universities’ structures and the services offered as tools to attain the scope and their effective role. The key strategic objectives are analyzed for the development of partnerships between education and industry so as to promote research, to stimulate entrepreneurship and dissemination of knowledge. Last but not least, a particular case of cooperation between the Department Textile Engineer of T.E.I. Piraeus and a company that operates in a similar way as an industry-which was conducted within the

research program Archimedes-is presented, in order to extract useful conclusions and benefits of fostering and adoption of such collaborations.

Key words: Education System, Industry, Cooperation, Universities, Textile.

1. *Higher Education in Greece*

The [Greek educational](#) system is mainly divided into three levels, primary, secondary and tertiary, with an additional post-secondary level providing vocational training. Primary education is divided into kindergarten lasting one or two years, and primary school spanning six years (ages 6 to 12). Secondary education comprises two stages: [Gymnasio](#) (variously translated as Middle or Junior High School), a compulsory three-year school, after which students can attend [Lykeion](#) (an academically-oriented High School) or [Vocational training](#). Higher Tertiary education is provided by [Universities and Polytechnics](#), [Technological Educational Institutes \(T.E.I., 1983 ~ present\)](#) and [Academies](#). All levels are overseen by the Ministry of Education and Religious Affairs. The Ministry exercises centralised control over state schools, by prescribing the curriculum, appointing staff and controlling funding. Private schools also fall under the mandate of the Ministry, which exercises supervisory control over them. Higher education in Greece consists of two parallel sectors: the University sector (Universities, Polytechnics, Fine Arts Schools) and the Technological sector (Technological Education Institutions and the School of Pedagogic and Technological Education). Higher Education Institutes are self-governing legal entities under public law, supervised and subsidized by the state through the Ministry of National Education and Religious Affairs. The main source of funding is the state budget through the Ministry of Education and European funds. Additional funding is provided by National and European Framework research projects (RTD), through other ministries and third bodies that receive services provided by the Higher Educational Institutions. Greece has a binary system of Higher Education, designed to ensure maximum flexibility and to respond to the wide variety of social and economic requirements. The Greek Higher Education system is highly diversified offering a wide range and type of courses. The universities are essentially involved with undergraduate and postgraduate programmes, along with basic and applied research. The same goes for the T.E.I.s but with a smaller number of post graduate programmes developed autonomus or with Greek or other European universities and a growing involvement in European Framework research projects (RTD). Moreover, in Greece there are 22 Universities, including Polytechnic Schools, the School of Fine Arts and the Hellenic Open University (EAP), 14 Technological Educational Institutes (T.E.I.) and the School of Pedagogic and Technological Education (ASPETA). The internal structure, organization, and operation of administrative, financial and technical services; overall teaching and research policy; planning; the procedures and requirements for hiring personnel for such positions; the allocation of funds, etc, are determined by

the respective provisions and the internal regulations of each university or T.E.I.. Greek Higher Education Institutes develop their own curricula which are published in the Official Journal of the Greek Government and come up for review every two years, by law. Course validation and accreditation is subject to the advisory body of The National Council of Education (ESYP). However, Greek Higher Education Institutes award their own qualifications (Degree, Diploma, MSc, Doctorate). Greek educational institutes are entitled to formulate autonomous policies for achieving their specific educational goals and in fulfilling their mission. A national credit system has existed in both sectors of higher education since the beginning of the 1980s. This is in fact an accumulation system in which the credits are directly equivalent to the weekly hours of instruction (e.g. a course of four teaching hours per week corresponds to four credits). However, ECTS is used by institutions in both sectors as a transfer system for European mobility programmes. The new 2005 law on Quality Assurance in Higher Education makes the use of ECTS for transfer and accumulation compulsory in two-cycle programmes at all higher education institutions. Currently, ECTS is fully implemented and both systems are in use. Higher education institutions are encouraged to set up their own internal quality assurance mechanisms to provide a sound basis for external evaluation.

1.1. Universities and Technical Universities

All the Higher Tertiary state-accredited universities in Greece are public. The duration of the undergraduate degree programs for most disciplines is 4 years (full-time). Programs in engineering, dentistry, pharmacology, agronomics, forestry, along with some programs in fine arts, have a duration of 5 years (240E.C.T.S - 300E.C.T.S ISCED 5A). Medicine is the only discipline with a duration of studies of 6 years.

Agricultural University of Athens

Aristotle University of Thessaloniki (campuses: Thessaloniki, Serres)

Athens School of Fine Arts

Athens University of Economics and Business

Democritus University of Thrace (campuses: Komotini, Xanthi, Alexandroupoli, Orestiada)

Harokopio University

Hellenic Open University

International Hellenic University

Ionian University

National and Kapodistrian University of Athens

National Technical University of Athens

Panteion University of Social and Political Sciences

Technical University of Crete

University of the Aegean (campuses: Mytilene, Chios, Karlovasi, Rhodes, Ermoupoli, Myrina)

University of Crete (campuses: Heraklio, Rethymno)

University of Ioannina

University of Macedonia

University of Patras (campuses: Patras, Agrinio)

University of Peloponnese (campuses: Tripoli, Korinthos, Kalamata, Nafplio, Sparti)

University of Piraeus

University of Thessaly (campuses: Larissa, Volos, Karditsa, Trikala, Lamia)

University of Western Macedonia (campuses: Florina, Kozani)

1.2. Technological Educational Institutes

All the Higher Tertiary state-accredited Technological Educational Institutes in Greece are public. Technological Educational Institutes were initially established in 1983. They currently offer a 4-years (full-time) undergraduate degree programs equivalent to Honours Bachelor's Degree (240E.C.T.S ISCED 5A) and since 2008 they are also allowed to run on their own postgraduate that lead to a Master's Degree and PhD programs.

Alexander Technological Educational Institute of Thessaloniki (campuses: Sindos, Katerini, Kilkis, Nea Moudania)

Higher School of Pedagogical and Technological Education

Technological Educational Institute of Athens

Technological Educational Institute of Chalkida (campuses: Chalkida, Thiva)

Technological Educational Institute of Crete (campuses: Heraklio, Chania, Rethymno, Agios Nikolaos, Ierapetra, Sitia)

Technological Educational Institute of Epirus (campuses: Arta, Ioannina, Preveza, Igoumenitsa)

Technological Educational Institute of the Ionian Islands (campuses: Lefkada, Argostoli, Lixouri, Zakynthos)

Technological Educational Institute of Kalamata (campuses: Kalamata, Sparti)

Technological Educational Institute of Kavala (campuses: Kavala, Drama, Didymoteicho)

Technological Educational Institute of Lamia (campuses: Lamia, Amfissa, Karpenisi)

Technological Educational Institute of Larissa (campuses: Larissa, Karditsa, Trikala)

Technological Educational Institute of Western Greece (campuses: Patras, Missolonghi, Pyrgos, Aigio, Nafpaktos and Amaliada) (Created by the union of T.E.I. of Patras and T.E.I. of Missolonghi)

Technological Educational Institute of Piraeus

Technological Educational Institute of Serres

Technological Educational Institute of Western Macedonia (campuses: Kozani, Florina, Kastoria, Grevena and Ptolemaida)

Students who successfully complete their studies in universities and T.E.I. are awarded a *Ptychio* (degree) which leads to employment or further study at the post-graduate level. University and T.E.I. graduates can continue their studies to attain an MSc and a PHD provided they meet the criteria set by each department running the courses. According to the Constitution of Greece, higher education is public, is provided solely by the state and is provided free of charge at the undergraduate level. Fees for some MSc courses are set by the departments running the courses. The State Scholarships Foundation (IKY) provides scholarships to students who wish to study at tertiary education institutions. Scholarships are also granted to graduates of universities and technical education institutions for post-graduate or post-doctoral studies in Greece and abroad based on academic achievement of undergraduate studies. Additionally, students (at any level) can receive mobility grants to study at other European Higher Education Institutes under the Lifelong Learning Programmes (LLP). The first cycle leads to the first degree (*ptychio* or *diploma*) in both sectors of higher education, i.e. the university and technological sectors. The second leads to the second degree, which is called a postgraduate specialisation diploma (equivalent to the Master's degree), and the third degree (doctorate). Studies in the fields known as regulated professions (medicine and surgery, agriculture, arts, dental studies, pharmacy, veterinary medicine and engineering) last for five to six years. A doctorate is obtained after at least three

years of original research, including the preparation and writing of a thesis. In some doctoral programmes, theoretical courses are compulsory and are taken prior to individual research. Under the 2004 law, a new international scheme for joint Master's degrees has been established. This provides for cooperation between institutions to work out the details concerning the organisation and functioning of postgraduate study programmes which lead to joint qualifications. Art. 23 of law 3404.

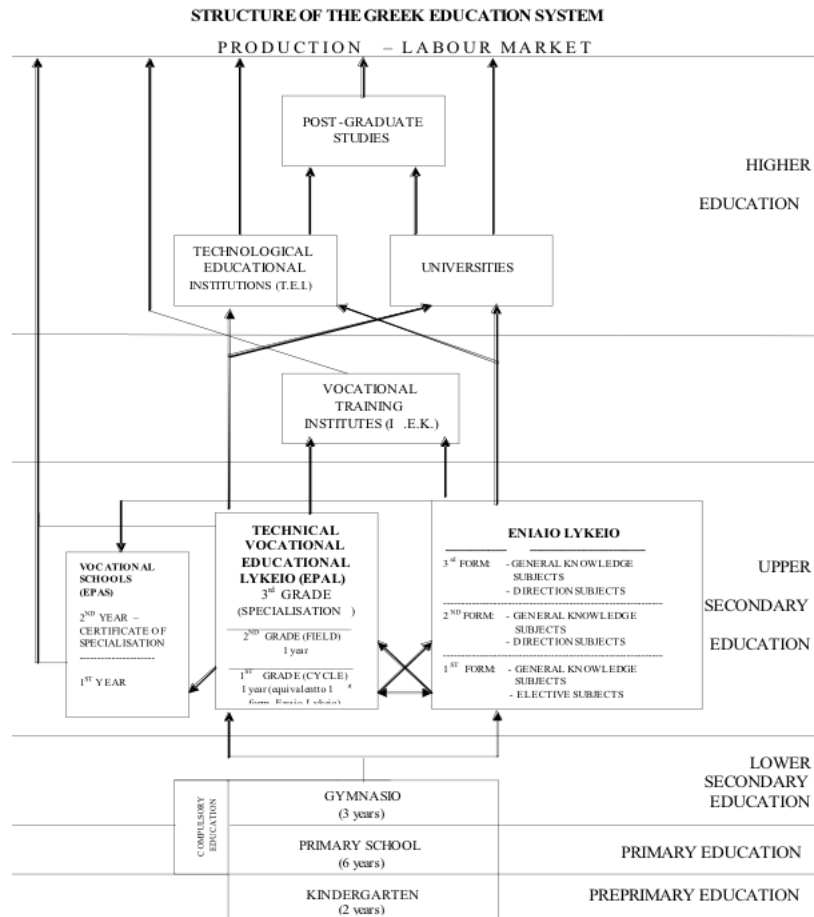


Figure 1: Structure of the Greek Education System

UNIVERSITIES & INSTITUTES	WEB SITE	STRUCTURE OF EMPLOYMENT AND CAREER/CAREER OFFICE/ LIAISON OFFICE
NATIONAL & KAPODISTRIAN UNIVERSITY OF ATHENS	http://www.uoa.gr/	CAREER OFFICE http://www.uoa.gr/foithtes/symboyleytikes-yphresies/grafeio-diasyndeshs.html LIAISON OFFICE http://www.uoa.gr/to-panepistimio/yphresies-panepisthmiakes-

		monades/grafeio-diamesolabshshs.html
NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA)	http://www.ntua.gr/	CAREER OFFICE http://career.central.ntua.gr/ LIAISON OFFICE http://liaison.ntua.gr/core/portal.asp?cpage=NODE&cnode=1
AGRICULTURAL UNIVERSITY OF ATHENS	http://www.aua.gr/index.php	CAREER OFFICE http://www.career.aua.gr/
ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS	http://www.aueb.gr/	CAREER OFFICE http://www.career.aueb.gr/
PANTEION UNIVERSITY OF SOCIAL AND POLITICAL SCIENCES	http://www.panteion.gr/	CAREER OFFICE http://www.panteion.gr/index.php?p=content&section=20&id=143&lang=el
ATHENS SCHOOL OF FINE ARTS	http://www.asfa.gr/	CAREER OFFICE http://www.dasta.asfa.gr/frontend/articles.php?cid=2
UNIVERSITY OF PIRAEUS	http://www.unipi.gr/	CAREER OFFICE http://career.unipi.gr/
ARISTOTLE UNIVERSITY OF THESSALONIKI	http://www.auth.gr/	CAREER OFFICE http://dasta.auth.gr/cmsitem.aspx?sid=2&id=155
UNIVERSITY OF MACEDONIA	http://www.uom.gr/index.php	CAREER OFFICE http://career.uom.gr/careerindex/index.html
UNIVERSITY OF WESTERN MACEDONIA	http://www.uowm.gr/	CAREER OFFICE http://dasta.uowm.gr/career/
UNIVERSITY OF PATRAS	http://www.upatras.gr/	CAREER OFFICE http://www.upatras.gr/index/page/id/104

UNIVERSITY OF PELOPONNISOS	https://www.uop.gr/index.php	CAREER OFFICE http://career.uop.gr/
UNIVERSITY OF IOANNINA	http://www.uoi.gr/gr/	CAREER OFFICE http://www.uoi.gr/gr/facilities/career_office.php LIAISON OFFICE http://liaison.uoi.gr/
UNIVERSITY OF CRETE	http://www.uoc.gr/	CAREER OFFICE http://www.dasta.uoc.gr/career/
TECHNICAL UNIVERSITY OF CRETE	https://www.tuc.gr/2969.html	CAREER OFFICE http://www.career.tuc.gr/3532.html LIAISON OFFICE http://www.liaison.tuc.gr
UNIVERSITY OF THE AEGEAN	http://www.aegean.gr/	CAREER OFFICE http://career.aegean.gr/
DEMOCRITUS UNIVERSITY OF THRACE	http://www.duth.gr/	CAREER OFFICE http://career.duth.gr/cms/
IONIAN UNIVERSITY	http://www.ionio.gr/central/	CAREER OFFICE dasta.ionio.gr/liaison
UNIVERSITY OF THESSALY	http://www.uth.gr/	CAREER OFFICE http://www.career.uth.gr/
HELLENIC OPEN UNIVERSITY	http://www.eap.gr/	CAREER OFFICE http://career.eap.gr
INTERNATIONAL HELLENIC UNIVERSITY	http://www.ihu.edu.gr/	CAREER OFFICE http://career.duth.gr/cms/
THEOLOGICAL EDUCATION INSTITUTE OF ATHENS	http://www.teiath.gr/	CAREER OFFICE http://www.career.teiath.gr/Career/Articles/215.html

TECHNOLOGICAL EDUCATION INSTITUTE OF WESTERN MACEDONIA	http://www.teiwm.gr/index.php?lang=el	CAREER OFFICE career@kozani.teikoz.gr
TECHNOLOGICAL EDUCATION INSTITUTE OF EPIRUS	http://www.teiep.gr/	CAREER OFFICE http://dasta.teiep.gr/grafeiodiasyndesis
ALEXANDER TECHNOLOGICAL EDUCATION INSTITUTE OF THESSALONIKI	http://www.teithe.gr/	CAREER OFFICE www.career.teithe.gr
TECHNOLOGICAL EDUCATION INSTITUTE OF CENTRAL GREECE	http://www.teiste.gr/	CAREER OFFICE http://career.teilam.gr/
TECHNOLOGICAL EDUCATION INSTITUTE OF THESSALY	http://www.teilar.gr/	CAREER OFFICE http://dasta.teilar.gr/default.htm?box=1&tile=112
TECHNOLOGICAL EDUCATION INSTITUTE OF IONIAN ISLANDS	http://www.teiion.gr/	CAREER OFFICE http://www.teiion.gr/index.php/el/management/daas.html
TECHNOLOGICAL EDUCATION INSTITUTE OF CENTRAL MACEDONIA	http://www.teikav.edu.gr/teikav/	CAREER OFFICE http://career.teikav.edu.gr/
TECHNOLOGICAL EDUCATION INSTITUTE OF KALAMATA	http://www.teikal.gr/	CAREER OFFICE http://dasta.teikal.gr/Career/default.aspx
TECHNOLOGICAL EDUCATION INSTITUTE OF CRETE	http://www.teicrete.gr/tei/en/index.php	CAREER OFFICE https://dasta.cs.teicrete.gr/web/career-office/ LIAISON OFFICE http://www.liaison.teicrete.gr/
TECHNOLOGICAL EDUCATION INSTITUTE OF WESTERN GREECE	http://www.teiwest.gr/index.php/en/	CAREER OFFICE http://www.teiwest.gr/index.php/el/home-2/dasta-gr
TECHNOLOGICAL EDUCATION INSTITUTE OF	http://www.teipir.gr	Structure of Employment and Career (S.E.C.) http://www.teipir.gr/index.php?option=com_content&task=view&id=90&Itemid=84

PIRAEUS		Liaison Office http://gdias.teipir.gr Counseling and Psychological Support Center counseling@teipir.gr Practical Training Office http://apollon.teipir.gr/praktiki/ Innovation & Entrepreneurship Unit http://www.teipir.gr/mke/ European Programmes and International Relations Office, http://euoffice.teipir.gr/ T.E.I. Piraeus Alumni Association http://gdias.teipir.gr/alumni
TECHNOLOGICAL EDUCATION INSTITUTE OF CENTRAL MACEDONIA	http://www.teiser.gr/	CAREER OFFICE http://diasyndesi.teicm.gr/
SCHOOL OF PEDAGOGICAL & TECHNOLOGICAL EDUCATION http://www.aspete.gr/	http://web.aspete.gr/aspete/index.php	CAREER OFFICE http://dasta.aspete.gr/Career/default.aspx

Table 1: Universities & Technological Education Institutes of Greece

2. *Economy & Industry in Greece*

The economy of Greece is the 42nd or 45th largest in the world at \$249 billion or \$286 billion by nominal gross domestic product or purchasing power parity respectively, according to World Bank statistics for the year 2012. As of 2013, Greece is the thirteenth largest economy in the 28-member European Union. In terms of per capita income, Greece is ranked 37th or 40th in the world at \$22,083 and \$25,331 for nominal GDP and purchasing power parity respectively. A developed country, the economy of Greece mainly revolves around the service sector (80.6%) and industry (16%), while agriculture made up an estimated 3.4% of the national economic output in 2012. Important Greek industries include tourism and shipping. The Greek Merchant Navy is the largest in the world, with Greek-owned vessels accounting for 15.17% of global deadweight tonnage as of 1 January 2013. With 15.5 million international tourist arrivals in 2012, Greece was the seventh most visited country in the European Union and sixteenth in the world. The country is also a significant agricultural producer within the EU. With an economy larger than all the Balkan economies combined, Greece is the largest economy in the Balkans, and an important regional investor. Greece is the number-two foreign investor of capital in Albania, the number-three foreign investor in Bulgaria, at the top-three foreign investors in Romania and Serbia and the most important trading partner and largest foreign investor of the Republic of Macedonia. Greek banks open a new branch somewhere in the Balkans on an almost weekly basis. The Greek telecommunications company OTE has become a strong investor

in Yugoslavia and other Balkan countries. Greece is classified as an advanced, high-income economy, and was a founding member of the Organisation for Economic Co-operation and Development (OECD) and the Organization of the Black Sea Economic Cooperation (BSEC). The Treaty of Accession of Greece to the European Communities was signed in Athens on 28 May 1979, and the country formally joined what is now the European Union on 1 January 1981. On 1 January 2001 Greece adopted the euro as its currency, replacing the Greek drachma at an exchange rate of 340.75 drachmae per euro. Greece is also a member of the International Monetary Fund and the World Trade Organization, and is ranked 31st on the KOF Globalization Index for 2010 and 34th on the Ernst & Young's Globalization Index 2011. The country's economy was devastated by the Second World War, and the high levels of economic growth that followed throughout the 1950s to 1970s are dubbed the Greek economic miracle. Since the turn of the millennium, Greece saw high levels of GDP growth above the Eurozone average, peaking at 5.9% in 2003 and 5.5% in 2006. The subsequent Great Recession and Greek government-debt crisis, a central focus of the wider Eurozone crisis, plunged the economy into a sharp downturn, with real GDP growth rates of -0.2% in 2008, -3.1% in 2009, -4.9% in 2010, -7.1% in 2011 and -6.4% in 2012. In 2011, the country's public debt reached €355.141 billion (170.3% of nominal GDP). After negotiating the biggest debt restructuring in history with the private sector, Greece reduced its sovereign debt burden to €280.4 billion (136.5% of GDP) in the first quarter of 2012. Between 2005 and 2011, Greece has had the highest percentage increase in industrial output compared to 2005 levels out of all 27 European Union members, with an increase of 6%. Eurostat statistics show that the industrial sector was hit by the Greek financial crisis throughout 2009 and 2010, with domestic output decreasing by 5.8% and industrial production in general by 13.4%. Currently, Greece is ranked third in the European Union in the production of marble (over 920,000 tons) after Italy and Spain. Between 1999 and 2008, the volume of retail trade in Greece increased by an average of 4.4% per annum (a total increase of 44%), while it decreased by 11.3% in 2009. The only sector that did not see negative growth in 2009 was administration and services, with a marginal growth of 2.0%. In 2009, Greece's labor productivity was 98% that of the EU average, but its productivity-per-hour-worked was 74% that the Eurozone average. The largest industrial employer in the country (in 2007) was the manufacturing industry (407,000 people), followed by the construction industry (305,000) and mining (14,000). Main industries: shipping (4th; 2011), tourism, food and tobacco processing, textiles, chemicals, metal products; mining, petroleum.

2.1. Textile Industry in Greece

Textile constitutes an important sector of Greek manufacturing industry, which includes many individual sub-fields as the spinning, the weaving, the clothing and

other sectors which are correlated. According to data of the Greek Textile manufacturers, the sector of textile contributes with roughly 15% in the configuration of GNP of the country, while it occupies 70.000 workers, including the personnel that is occupied in the sector of clothing also. The total number of workers approaches the 120.000 individuals representing the 28% occupied in the domestic industry. The exports of textile manufacturing products and ready clothing classify this wider sector as the bigger export of the domestic manufacturing industry, representing the 23% of total exported products or the 47% of exported industrial products and participating with 28% in the industrial production of country, developing the domestic raw material, the cotton. The textile in Greece presented important rhythms of growth at the decades '60 and '70, period at which it maintained powerful place in the domestic industry. Since then, it entered in period of recession, with important reduction of domestic production and investment activities, so that it is led to shrinkage and a lot of textile manufacturing units suspend completely their work. However, the most important problem is focused in the competition that Greek products mainly accept Third Countries (from Turkey, Pakistan, India, China) in the Greek market and in European market, as well. Today the number functioning spindles in the spinning is calculated around 750.000-800.000, lower comparatively to 1,5 million in the beginning of 80's. It is however pointed out that, the majority of the spindles are of modern technology with higher speeds, and are installed in new spinning units replacing the old ones. According to marketing sources, in the sector have remained henceforth the healthy enterprises, while it should pointed out that the possibility of investments was increased mainly because of the capital that was drawn Stock Exchange Market. The continuing modernisation of productive units is essential, in order to achieve reduction of cost of production, improvement of quality and specialisation in products of great added value. In this way Greek enterprises strengthen their competitiveness in Greek market, and in international markets, as well. Already, large enough companies of the textile sector produce high quality products. First place in the domestic production of ginned cotton. Market Share 8,5%. Second place in the domestic production of yarn. Market Share 10%. First place in the export of yarn. Market Share 15%.

3. Cooperation between University & Industry

Observing university industry cooperation models is reserved to the following section of the report. The next section reports the Greek model of cooperation between universities and industry especially in an EU (projects) context. In this case the model gives information how to improve cooperation possibilities in a rapid developing economy and with an impetus from the EU. Let's not forget the four strategic objectives that EU focuses through operational programmes such as:

- ✓ 1st Strategic Objective: "Upgrading the quality of education and promoting social inclusion ." Strengthening human resources and decentralized

- structures of the educational system, to improve its quality, to upgrade services and better meet the needs of modern society and economy.
- ✓ 2nd Strategic Objective: "Upgrading the systems of initial vocational training and vocational education and online education with the labor market" Development of human capital in the context of upgrading the initial vocational training and vocational education, with opportunities for continuous improvement of the qualifications and skills of young people. Under this axis, including special attention to the promotion and mainstreaming of gender equality and equal opportunities.
 - ✓ 3rd Strategic Objective: "Strengthening lifelong adult education" Widening participation in staffing actions lifelong education, to acquire knowledge, skills and competencies that will promote personal growth, increase active participation in the labor market, especially women and contribute to strengthening social cohesion, reducing the social exclusion and facilitating access to education. Towards this puts the inclusion of socially vulnerable groups, people with disabilities and women in lifelong learning activities.
 - ✓ 4th Strategic Objective: " Strengthening human capital for the promotion of research and innovation" Developing human capital through a) the promotion of research and innovation, and b) the quality improvement and targeted thematic orientation of graduate studies in Higher Education Institutions, independently or in collaboration with other research centers and research and technology organizations in order to further enhance the research potential, according to the perspectives of science and the needs of the productive sector.

Starting from the identification of the relative position, missions and flows of activities within the University and Industry sectors in the knowledge based society, a systemic representation is proposed as a starting base. The cooperation with the industry creates a more complex environment with more parameters that makes more complex the synergetic effects and synergy processes. To cope with these new challenges, the entrepreneurial university is presented in the context of the knowledge based society. An industry in a globalised economy depends critically on innovation and its ability to increase productivity through process innovation. Innovation itself depends on the creation, application and diffusion of new knowledge. Since an advanced economy can only compete by creating new product and technology, the creation and diffusion of the knowledge on which this is based has become a factor of utmost importance. A significant part of the knowledge is produced in the academic research sector. New knowledge and ideas, generated "for the sake of the art", i.e. remaining separated from innovation, are economically worthless. In a globalised economy, when the governmental funding has become chronically insufficient, Universities cannot afford to ignore this

aspect and remain separate from industry. Therefore a fundamental changed attitude is Society needed, as well as new schemes of cooperation, which should be attractive for the industries. The production of new knowledge has therefore to be integrated into the mainstream of economical resources. This requires a structural connection between the universities and economic systems of society. The traditional division of labour and functions between academic science, academic teaching and industry (applied research, development, innovation) seems to be already obsolete at least from the university point of view. Since the 1980s, Higher Education in Europe has had to respond to increasingly complex and varied needs of society. The economic progress of the society and a reconsideration of its theoretical background has directly affected the university sphere. Accordingly, higher education must face a number of new problems. First, the demands of society are such that higher education institutions do not have sufficient capacity to respond. On the other hand, cuts in public spending have meant fewer funds for the University and even the existing funding is increasingly subject to the outcomes produced. The concept of Accountability has appeared, and this means that universities are required to justify themselves to society. All this is aggravated by the fact that knowledge now exceeds resources and this has created a huge pressure on the universities to market the new knowledge they traditionally produce. Faced very often with institutional inefficiency, the response of many universities has been to adapt to the circumstances and develop an entrepreneurial response. The entrepreneurial attitude is seen as one of the possible solutions for the university to cope with the ever increased complexity of the economic mechanisms. This means that the university should foster on the application of the new knowledge through *innovation* in order to take full advantage of its creation. According to the definition, in order to become entrepreneurial, a university should focus on the application of new knowledge i.e. innovation and this could be approached in three possible scenarios: 1. to transfer the knowledge to incumbent firms; 2. to transfer the knowledge to individuals starting a new firm; 3. to establish a new firm by himself. Of course, the keyword here is transfer of knowledge. Various success stories from Asian countries and USA could be evocated to illustrate the theory: the industrial platform model (very successful in Taiwan for example), the entrepreneurial model of Stanford (Silicon Valley) and MIT, where the application of knowledge is an essential part of the institutional mission and is very careful assessed and explicitly encouraged etc. These success stories are examples of technology transfer by using the university as fertile field for industrial platforms creation. We will call this a top-down approach since it is based on the principle of creation of a hyper-innovative environment, able to feed continuously initiation and rapid grow of new businesses. Entrepreneurial activity has traditionally occurred at 2 different levels within universities: (i) Individual activities of teachers and students: consultancy, grant acquisition, firm creation, (ii) Entrepreneurial universities = Organisational entrepreneurship with the following features: Support

services for individual activities, Professional education, Real estate and other financial investments, Commercialisation of tuition, Excellence in research and education, Consultancy, Community service. Partnerships between the University and Industry sectors, either at national or European level, were given policy priority in the E.E.C. since more than 3 decades. The target was to liaise the Universities and their courses to the socioeconomic needs, the regional development strategies and last but not least to the industry. The University potential in collaboration with industry staff, is expected to contribute to regional development and high Quality Education and Training, through various innovative efforts and initiatives, planned by several partnerships. In the relation between Universities and Industry in Greece cooperation is a key issue. This is done in different ways: academic infrastructures, academic programs, common research projects, internships, seminars etc. Examples range from support for individual spin-off companies, over strategic collaboration with well known research institutes to networking in the universities. With the use of EU funds, our country managed to raise the knowledge bar to levels competing the most advanced countries in the world. Focusing on Higher Education, actions were funded, whose results are reflected in various ways such as research & innovation promotion, well- equipped libraries, operation of new departments, upgraded undergraduate and postgraduate studies. However, since the requirements in knowledge grow by leaps and bounds and we certainly should harmonize with the rhythms of the season, the continuous support of the Higher Education -and the cooperation with the market & the industry- becomes necessary with the ultimate challenge of achieving the specified objectives in order to prove to the Community co-financing, the value of investment & co-financing in the Greek society. In the above context, they have been in operation and still go on several actions designed to link education and the labor market and to encourage research. Indicatively, we mention Structures of employment & career, Liaison Offices, Practice, Entrepreneurship, Hrakleitos, Thales and Archimedes. The rational implementation of the above results in upgrading the quality of education by promoting spiritual values and helping to shape a society ready to gestate "ideal citizens" as well as reinforcing the market and the industry by promoting innovations and by creating a new healthy economic environment. However despite the EU funding (at 75%) autonomous viability of most of the above structures is trying to be achieved in the University World. Besides that the recent laws concerning the University framework and the relations to its stakeholders encourages the last decade especially the cooperation with the industry and not only. Most of the above mentioned structures are parts of the organisational structure of the Universities & Institutes.

3.1. Good practices of cooperation between HEI & Industry - Greece Case Study

Societies are rapidly changing, the status of labor relations is changing and the public sector is shrinking everywhere. Graduates of Greek AEI-TEI are invited to build a career in a completely new working environment with high uncertainty and low employment prospects in the public sector but also in the old private sector with the high recession. With this in mind, the development of self business' capabilities by taking innovative business activities has become the last years, crucial for Higher Education Graduates and Greek economy in general. Even those who attend schools that produce Teaching Staff or skills that are not directly related to the economy, need studies that highlight and unravel all aspects of their creativity. Entrepreneurship and Innovation in Education and consequently the synergy between HEI & Industry should therefore not be uniquely associated with the concept of profit business, but also with the deeper human need of emergence of individuality and personal completion of each. Conversely, lack of entrepreneurial initiative, research leads inevitably to the employment of the dependent jobs and last but not least to services vs production –with high uncertainty nowadays. All the structures mentioned above, among other things, aim to support the cooperation between HEI & Industry and stress through publicity actions the good practices. One of the objectives is to reassess the concept of entrepreneurship which must gain a friendlier content for its stakeholders. This primarily means, changing mentalities that incumbent associate career, first of all, with the State and face the market, the industry and the profession as a source of risk and uncertainty rather as a starting point for personal fulfillment and offer opportunities. This section examines the current situation in Greece concerning the good practices of cooperation between HEI & Industry. For this purpose, summarized, in principle, the previous structures, actions implemented in Greek higher education today, will be presented.

Liaison Offices: The purpose of these Offices is to support the members of the University community and the creation of appropriate partnerships for further development of innovative research results. They usually offer the following services: Continuous recording of interesting workshops and opportunities for participation in programs, System targeted information on interesting workshops available funding, but requests for cooperation from other agencies, based on their interests and abilities, Counseling and support for participation in proposals, Assistance in finding suitable partners, Finding partners, Counseling in signing the agreements on intellectual property and cooperation agreements in the context of equity -funded programs, Contact with local businesses who are interested in cooperation with the University, Creating networks with other Liaison Offices in Greece and abroad, Establishing relationships with regions, municipalities and other bodies involved in the development of the region, Establishing relationships

with our nearby universities and colleges, Organisation of information days for researchers, Organisation of information days for local entrepreneurs, Information, education staff on issues related to the better functioning of the office, Search for funding to enhance the function of that office, Contact with the local press, Production of information material, Maintain updated website, Continuous recording of useable research laboratories results to find suitable mode of recovery and appropriate method of financing, Providing legal advice and assistance for the registration of a research and cooperation agreements: Copyright, Trademark, Draft , Patents, Confidentiality Agreement for preliminary discussion exploitation investigation, Technology transfer agreements or technology to third parties, License Agreement, Cooperation Agreements, Surveys, Support in applying for patent, Investigate the existence of another patent, Decision on Greek or other patent, Assisting in the preparation of the patent application, Applying patent, Find programs or other funding agencies for exploitation of research results, Financing of current programs, Funding from specific industrial or other entities) that are in contact and may be interested, Funding from Venture Capital, Funding bodies warmers, Find partners through participation in targeted Investment Forums.

Career Offices: Have been operating the last two decades aiming to offer a source of up to date and accurate advice and information on a range of educational, career guidance and counseling issues, a meeting point between education and the labour market, an opportunity to get in contact with public sector bodies, in general, a bidirectional node between the Academic Society and the production sector to create partnerships, a contact point between Universities and other educational institutes throughout Greece and abroad. More specifically, the most important services offered by the majority of Career Offices of the Universities of the country are Counseling Services (Divided into actions of group and individual counseling concerning on resume writing, cover letter, job interview personal, career search techniques, career decision), Services in connection with the labor market (Include activities aimed at market approach, Working primarily through the development of contacts and cooperation with enterprises and employers' organizations, as well as the communication of available work positions), Services related to Postgraduate Studies and Scholarships, Services to faculty members and departments of their institutions, Services to the Secondary Education, Events – Events, Entrepreneurship Services etc.

Structures of Employment and Career: With the continuation of the funding in the frames of NSRF (National Strategic Reference Framework) and the operational programme for education and life -long learning, co-financed by Greece and European Union, a new structure is developed the Structure of Employment and Career which is established and is active since 2007 in Higher Education and is responsible for organizing, supervising and coordinating all individual structures /

programs relating to the connection of higher education to the Labour Market and Industry. Career Offices, Practical Training Offices, Innovation & Entrepreneurship Units, Counseling and Psychological Support Centers are separate parts of Structures of Employment and Career (S.E.C.).

Practical Training Offices: Practice is an important part of the Higher Education regarding the contact between students and the Labour Market. It is a way of linking theory with practice. The actual application of knowledge in labor market can be reached in the development of entrepreneur-graduates and creating new jobs. Also, the acquisition of such experiences can help in the proper orientation of a student in many cases. The Practice aims to achieve two-way feedback between Higher Education and the workplace. The intervention sought the essential connection between education and production to such an extent that the practical training is not only a request from Institutions to Labour Market but also from Labour Market to the institutions. It contributes to achieve bidirectional communication between the Higher Education and the Labour Market, Industry.

Innovation & Entrepreneurship Units: All programs included activities such as: Introduction of entrepreneurship courses (The type, structure and number of courses vary between programs, and the audience addressed), Production of educational material for educational purposes, Visits to businesses and other organizations associated with the object of study of the students, Seminars for entrepreneurs and business executives, virtual enterprises and / or developing simulation exercises and website development both for information and for distribution of educational material, Development of case studies referring to specific existing companies or specific business issues, Development of business ideas and business plans, Prizes of Entrepreneurship, Creation of Figures mentoring within the contact between students & business executives and organizations, Networking (Includes participation in events and conferences of organizations implementing entrepreneurship programs, contact with alumni networks, with incubators of new businesses - technology parks, with new centers of entrepreneurs), Activities for the promotion and publicity of the program as conferences, workshops and display production and diffusion of printed promotional material.

Vocational Training Centres-Technological Research Centers-Institutes for Lifelong Education-Research programmes (Hrakteitos, Thales and Archimedes etc): All these structures or programs play an important role in the HEI-I synergy and reinforce their cooperation through different kind of actions (seminars, creating innovation, targeted workshops and research etc.)

Entrepreneurship services: Programs to encourage entrepreneurial activities, innovative applications and elective courses, Organization of annual National

Competitions for development of innovative and pioneering business plans, Workshops and round tables for transmission of specialized knowledge and in-depth discussions with people who have experience in business, Seminars on acquaintance with the experiences entrepreneurs, Library to study the theoretical part, Case studies for acquaintance with the history of real business, Simulated exercises for immediate understanding and addressing individual problems, Virtual simulation companies for the understanding of the overall ups, Visits to enterprises (and if possible practice) for experiential understanding of business operation, Edit business ideas (possibly innovative) to exercise to capture opportunities for new products and services, Prepare business plans of learners with approach to actual conditions, Figures mentoring for the transfer of experience of business, Counseling and guidance to better understand the design of business activity, Participation in business innovation contests and competitions for gaining experience etc.

European Programmes and International Relations Offices: contribute in their own way through special programmes or actions to the Higher Education and Industry cooperation emphasizing in the European dimension (Erasmus, Erasmus plus for young entrepreneurs, Leonardo, etc).

Last but not least, we can't doubt the supporting role that some other structures, programs such as **Mentoring programs, Alumni Associations, Horizontal Action bodies** play.

3.2. Results and Impacts

In the implementation of the previous related structures, programs, actions in the Institutions of Higher Education observed from different point of views and approaches there is a variation in the success and the achievement of the objectives.

Through these different approaches, however a series of "good practices" can be traced, which can be analyzed and exploited (when it is possible or where adjustments are applicable) in the synergy of Higher Education Institutions & Industry. The "good practices" identified concern both Incentive Programs, Business activities, innovative applications, actions of entrepreneurship, Liaison Offices etc discussed below. The result is identified in realizing stable and long-term partnerships between education and production (at local, regional or national level). The stability and duration of these partnerships have enabled substantial involvement of stakeholders and people outside of institutions and provided substantial incentives for their participation in program activities. At the same time, it was a factor of activation for local communities (in an extent) as to be interested and be involved, while this helped significantly the diffusion and dissemination of

programs and results. At the level of cooperation and networking, a good practice in relation to cooperation and joint activities within the institutions themselves but also with others.

The development and monitoring mechanisms for the progress of the programs and the achievement of objectives in relation to the qualitative characteristics can be identified as a good practice (for example questionnaires surveying business attitudes of students / students before and after monitoring entrepreneurship courses), which served as an effective tool of monitoring the achievement of quality targets and feedback of strategy for the stakeholders. Of particular concern in this case, is far beyond, the manner used to attract the stakeholders and involve them and the way the different disciplines, both in terms of knowledge and attitudes are used. Supporting students, graduates, new & old entrepreneurs, creating spin off companies was of particular importance and increased efficiency. Finally, as good practice we can consider the involvement of more teachers, business-mentors and others in the process of drafting business plans. A broader and more effective transfer of knowledge and experience took place, with wider contribution and acceptance of both the academic programs and the industry.

In conclusion, there are a lot of deliverables produced all these years with a large geographical and sectorial impact along with enabling market potential for SME and inducing benefits such as job creation, triggered investment, trained people etc.

3.3. Lessons learned and replicability

Universities, all over the world, exist to fulfil three main goals: educate future leaders of their communities, promote the advance of knowledge in every academic field (research), propose an offer of continuous education to practitioners. We can see these three purpose in the statements of the Mission of our institutions as well as, in the introductory chapters, in University Laws in every country. Since the decade of 1990 there has been in Europe (EU) a reinforcement of the role that research must play in universities and research is becoming an increasingly important task for university teachers. This is true in every academic field and also in Industrial Engineering and in Operations Management as a branch of it. The university-industry relationships is is important in many academic fields but especially in Industrial

Engineering and so in Operations Management. The issue is to build a strong rather than a faint relevance of university research results and industry, something which is not always effectively done. Another issue is the knowledge management operation deriving from all the different structures/programs/actions which in some cases overlay each other and do not encourage scale economies.

In conclusion, there are a lot of lessons to be learned from all the analyzed structures/programs/actions and there is a variety of key factors of success. Most of

the analyzed structures/programs/actions either already exist in other European countries or can be created in the future as long as there are adjusted to the specific circumstances.

4. *One good practice of cooperation between Department of Textile Engineering of TEI Piraeus and Vostex*

The Technological Educational Institute of Piraeus has created 1) smart textiles, electrically conductive yarns and fabrics by the method of metal coating deposition (electroless deposition), 2) a network of wireless sensors, 3) has implemented infrastructure wireless data communication. The Technological Educational Institute of Piraeus operates with high standards in education and research. Aiming high knowledge and development responds largely to the increased demands of a modern society to create strains with serious scientific infrastructure technology and applications. It implemented conductive textile sensors with innovative method globally (team ESTHIS) etc.

One of the many good practices of cooperation that we will shortly analyse further is the one between Department of Textile Engineering TEI Piraeus and Vostex concerning technology transfer. The project entitled "Development of textile materials for use in telematics applications" was implemented under Action Innovation Vouchers for SMEs, between the innovation organization TEI Piraeus and the beneficiary enterprise AFI Vostantzoglou OE (distinctive title "VOSTEX"), with two months duration (15/4/2011- 15/6/2011) and a small budget of EUR 7,000. Work packages realized by the beneficiary institution, VOSTEX and implemented under the project were a) Set textile with metallic threads b) Set with textile filaments which have been coated with metallic copper or gold while the Work packages realized by the institution innovation, TEI Piraeus were a) Production of metal and coated yarns for the project's needs b) Organization of the production process and c) Technical instructions.

4.1. Research - Formulation and documentation of the problem

The VOSTEX company manufactures textiles, including belts, curtain, rubber cords. VOSTEX expressed interest to acquire expertise in the development of textile products using electrically conductive textile materials like conductive elastic belts, straps or curtain, which would have augmented properties and can be applied in the field of smart clothing with a variety of uses. By using electrically conductive yarns in the weave, as well as in combination with conventional yarns, for the production, the company was keen to produce products with metal fibers, yarns and fiber containing conductive polymer material and yarn containing coated metal fibers.

The goal was to make the company able to manufacture products that can be used in smart clothes for telematics applications (remote monitoring, remote control and telemetry), in medicine, defense, personal protection, etc. Specifically, the company sought expertise regarding the use of electrically conductive wires in strands and in combination with conventional threads, for textile production for niche applications. The intention was to produce products using metal fiber, mixed fiber yarns and conductive polymer material and coated with metal fibers. Following an investigation on existing know-how, this company came into contact with the Technological Educational Institute of Piraeus and the Department of Textile Engineering consequently, which is active in the relevant field, has conducted similar projects in the past and has the appropriate expertise. The relevant preliminary discussions were performed, the object was determined and finally the cooperation within the action "Innovation Vouchers for SMEs" was confirmed. The project team was established, consisting of personnel of both the Technological Educational Institute of Piraeus and staff of "AFI Vostantzoglou OE". Preparation steps took place as well as execution and management of the work program in accordance with the project objectives. People in the project team were familiar with the technical and practical parts of the issue.

4.2. Experiments - Testing - Development of prototypes

The data of the beneficiary company were identified and analyzed. Upon completion of the problem investigation, the project team worked with the identification and mapping of potential solutions as a function of the existing infrastructure. In the business infrastructure automatic weaving machines and semi-automatic are included. The use of both metallic yarn and metallised yarn presents several difficulties which have to do with winding the bobbin, which creates undesirable shifts that result in cutting the thread, the management of the crossings which are impaired by metallic threads, by interweaving metal, metallized and conventional synthetic yarns. Preparation was carried so as to provide the necessary resources, infrastructure and technical assistance required for the project. We studied the thread process structure and management. The filament path was analyzed and critical areas were identified. Problems were identified; the preparation and pretreatment of yarns were completed. The textile machines were adjusted by making the necessary changes and interventions-designed standards required products with electrically conductive regions woven. Production proofing followed in semiautomatic and automatic machines as well as construction of three kind of essays using metallic thread, using mixed yarn fibers & conventional conductive polymer material, and essays using metal-coated fibers.



Weave of metallic yarn



Woven lanyard with core consisting of yarns includes metal strands. Electrically conducting with a very low electrical resistance. Absolutely flexible.



Woven lanyard with core consisting of yarns include metal strands, close view.

A model of processes was developed for the use of materials in automated processes. Procedures were repeated and the business ability of processing the application procedures was verified. Last but not least, the processes on the data recorded throughout the course of implementation were analyzed. Moreover a technical manual was written and advisory regarding the above was performed.

4.3. Results - Project Review and Evaluation

The project "Development of textile materials for use in telematics applications" which was implemented by the cooperation of business Vostantzoglou BROS OE with the Technological Educational Institute of Piraeus, gave the company the necessary expertise to develop and produce a range of products which differ from the usual textiles produced in the Greek territory. These products allow the company to increase its competitiveness in so far as it is a unique supplier of the relevant market in our country. During the project, essays of woven straps, and curtain cords using metal yarn, thread and fiber conductive polymer material and coated with metal thread were produced. These new textiles produced in the frames of the project, incorporating augmented properties with respect to the operation and use. Consequently, textiles with electrical conductivity properties for obtaining biological signals (electrical potentials) of the human body were produced. These products are used for building intelligent, multi-functional garment for receiving and recording biosignals from the human body. The production process of multi-functional textile products was formulated to yield products with quality features as specified.

4.4. Benefits for the company

The transfer of know-how for the implementation of new technologies and materials in the production of knitted multifunctional products from 'AFI Vostantzoglou OE' was completed successfully. A report was delivered on the results and the critical points that need attention. Moreover, directions were given to overcome technical difficulties and problems such as the use of special equipment and techniques for guiding the yarn to the machinery to minimize damage. Last but not least a manual with instructions and specific technical clarifications was written, education and counseling was held regarding the above so as to enable the contracting company to design and solve technical problems and to proceed with the production of goods. The capability of processing the application procedures of the business was verified. Plus the "AFI Vostantzoglou OE" has the expertise and ability to produce a range of multi-functional textiles with electrical conductivity properties which keep the other properties of the fabric. This differentiates it significantly from other firms of its kind and supports making the specific know-how acquired in the framework of the project "Development of textile materials for use in telematics applications" significant competitive advantage.

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Millennial consumers' perceptions on the organic products

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The purpose of this paper is to examine the Greek millennial consumers' perceptions on the organic products that may affect their buying behaviour. The focus on this group principally derives from the millennials' importance for the contemporary firms. Issues that concern consumers' knowledge about organic products, consumers' views about organic products cost and, consumers' preferences for organic products and the main criteria that lead them to pay for the organic products have been examined. Data from questionnaires answered by Greek millennial consumers' have been statistically analysed. The cited literature data have contributed to the compilation of the research hypotheses, as well as to a better understanding of the research results. The results analysis has led to interesting results about the millennial consumers' perceptions on the organic products.

Key words: organic products, millennials, Greek market, consumers' behaviour

1. Introduction

Organic agriculture is a system which relies on ecological processes, the biodiversity and natural cycles adapted to local conditions, opposed to the use of inputs and their adverse effects (Rosen, 2010). Organic farming was the answer to the intensive agriculture and its negative ecological, social and economic consequences (Aryal et al., 2007). The International Federation of Organic Agriculture Movements (IFOAM) defines organic agriculture as "a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved".

During the last decades, the purchasing behaviour of consumers with respect to organic products has dramatically increased due to the absence of synthetic fertilizers, pesticides, hormones and other harmful chemicals (Smith-Spangler et al., 2012). The global market of organic products has been expanding by over five billion US Dollars a year, as the total revenues were €13 billion in 2001, when in 2011 were €48.41 billion.

Consumers nowadays want a healthier diet, which simultaneously protects the environment. This combination is offered by the organic products. Organic products contribute both to environmental protection and public health improvement, offering significant benefits in economic and social level (Gracia & De Magistris, 2007). The social benefits of organic products are growing more and more in recent years especially in developed countries, where consumer preferences are changing direction towards the awareness of safety, health improvement and environment protection. Organic products are richer in nutrients, minerals and vitamins, in contrast to the conventional ones that contain more water and fewer nutrients (Rosen, 2010). Furthermore, organic products do not contain hazardous substances for the health of consumers and are less processed and therefore more pure. In addition, irradiation and other similar processes are prohibited in organic agriculture.

The purpose of this study is to examine the Greek millennial consumers' behaviour towards buying organic products through defined criteria such consumers' attitudes to organic products, organic products cost and, consumers' preferences for organic products.

2. Literature review

The issue of consumers' perceptions on buying organic products has prompted a fairly large number of researchers to examine it.

Vermeir & Verbeke (2006) indicate that organic products according to consumers appear to have better flavor, quality, safety and freshness, contributions to the local economy and identity and impact on human health and the environment. All these characteristics are factors that may affect their buying behavior. Aryal et al. (2009) concluded that the authenticity verification, the taste, the variety and the appearance of the organic products are very important factors that may lead consumers to buy them. De Vlieger et al. (2013), argue that a very important factor that may affect consumers to buy organic products or not is how easy they may find them.

Research hypothesis H1: "Greek millennials' criteria for buying organic products are (a) the quality, (b) the certification, (c) the taste, (d) the variety and, (e) the firm name".

According to Siderer et al. (2005) consumers express serious doubts about the authenticity of organic products. As far as the results of this research are concerned

an important factor that may affect consumers' buying behavior toward organic products is whether there is a special label on the packages or not.

Other studies emphasize in the importance of knowledge of consumers about organic food as an influencing factor on their purchasing behavior. Knowledge about organic products allows consumers to better evaluate the quality before making their market (Grunert, 2011). Consumers who buy organic food because they believe they are healthier can be confronted with the assumption that this is not true; their knowledge about organic food makes them doubt about this mention so they continue buying organic food for health reasons (Grunert, 2011).

Several empirical studies highlight the influence of all social and demographic characteristics of consumers in the purchase decision of organic (Zepeda & Lin, 2007). Other researchers indicate that age, gender, education level and household size play an important role (Lockie et al., 2004).

A very important factor that affects the demand for organic products is the care of consumers to secure and maintain the environment. The more positive environmental attitude consumers have, the highest probability is to buy organic products (Chryssohoidis & Krystallis, 2005).

The cost of the organic products plays a very important role in consumers' behavior. While the price is often a major obstacle in buying conventional products, in the case of organic products a greater willingness to pay extra money in order to buy them has been recorded (Canavari et al., 2005). According to Schuldt & Schwarz (2010), many consumers prefer the more expensive organic product, because of the wide perception that they are healthier, without actually considering if the product meets the required specifications.

Research hypothesis H2: "Greek millennials show greater willingness to pay extra money in order to buy organic products".

3. Research methodology

3.1. Sampling

This research examines a representative of the population sample. 163 Greek millennials' responses to a special questionnaire have been statistically examined. Millennials are the consumers between 18 and 35 years old (Paul, 2001). Millennials are considered as the most socially responsible consumers, whose buying behaviour is directly influenced by socially responsible actions as the organic agricultural methods and they are demanding for such actions (Ng et al., 2010).

3.2. Research tool

The questionnaire's formation is based on the objectives of the study. The sections of the questionnaire are: (a) consumers' knowledge about organic products, (b)

consumers' preference in the organic products, (c) organic products cost, (d) consumers' perceptions on the organic products, (e) demographics. Most of the questions are adapted to a five-point Likert scale; there are dichotomous and open-ended type questions as well.

4. Data processing and results presentation

4.1. Method validation test

The Alpha-Cronbach's value equals to 0.732 which means that the recorded data are reliable and can be statistically analysed (Chalikias, 2013; Chalikias & Kolovos, 2013).

Millennial's knowledge, beliefs and preferences about organic products

The first part of the questionnaire deals with consumers' knowledge about organic products.

Variables	Mean	Standard deviation
I know what organic products are	4.43	0.68
I know how to find out whether a product is organic or not	3.04	1.03
I respect the firms that sell organic products	3.97	0.76

Table 1: Descriptive statistics of the questions concerning consumers' knowledge about organic products.

Based on Table 1 data, most of the asked consumers know what an organic product is. As far as consumers' knowledge about finding out whether a product is organic or not, the respondents seem to be neutral. Finally, they seem to respect the firms that sell organic products. In this section, despite the fact that most of the people seem to agree with what they are asked, there are significant differences between the responses as shown by standard deviations.

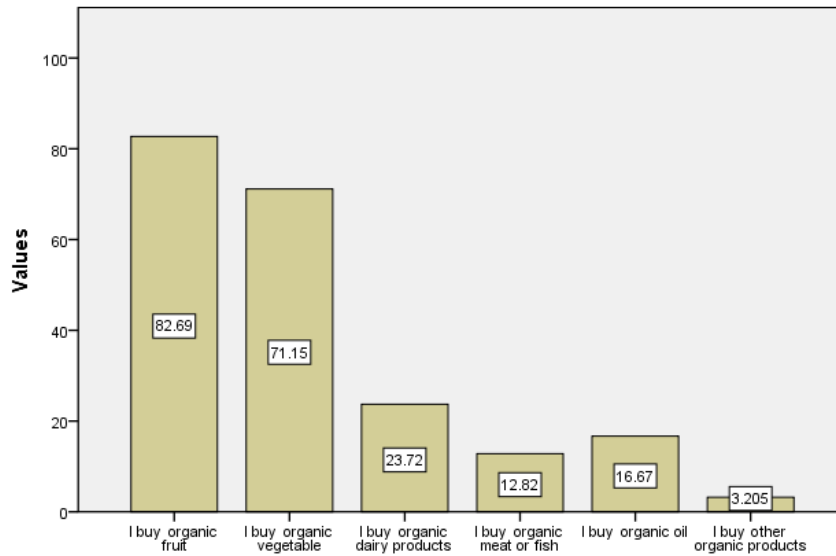


Figure 1: Millennials' preferences for organic products.

The most popular of the organic products among millennials seem to be the fruits (82.69%) due to Figure 1 data. Furthermore 71.15% buy organic vegetables, 23.72% buy organic dairy products, 12.82% buy organic meat or fish, 16.67 buy organic oil and 3.2% buy other types of organic products.

Millennial's intention to pay higher prices for organic products

As Canavari et al. (2005) note, despite the fact that the price is often a major obstacle in buying conventional products, in the case of organic products consumers' seem to have a greater willingness to pay extra money in order to buy organic products. By cluster analysis we will be able to understand millennials' buying behaviour concerning the price of organic products.

Before the cluster analysis, factor analysis will be implemented. This is because due to the nature of the data there are many correlated variables. It should be noted that cluster analysis without the implementation of factor analysis previously, would lead to much different results (Chalikias et al., 2010; Chalikias, 2012). Factor analysis assists the interpretation of the variables large number. Kaiser-Meyer-Olkin test value equals to 0.702 and Bartlett's test of sphericity p-value equals to 0; thus, the recorded data are suitable for the factor analysis.

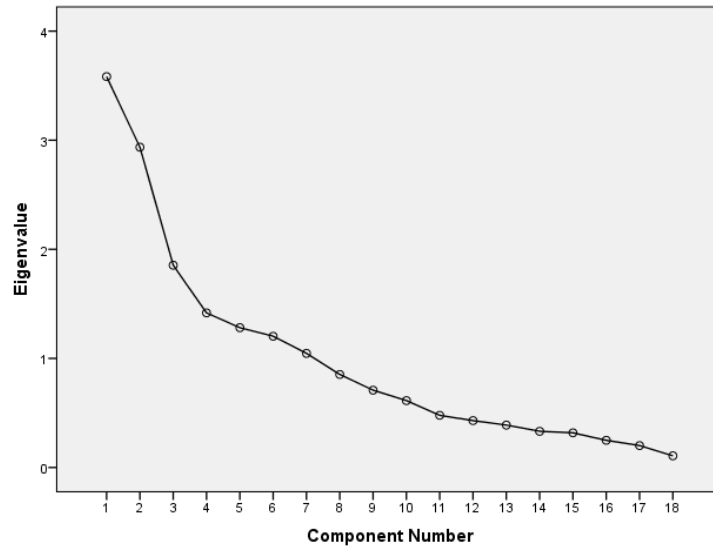


Figure 2: Factor analysis scree-plot.

In Figure 2 there are four components with eigenvalues over 1.0 which according to Kaiser's Rule means that five components will be extracted. The components are (a) criteria for choosing organic products, (b) organic products' cost, (c) millennial's knowledge and beliefs about organic products and, (d) millennial's intention to pay higher prices for organic products.

In order to examine how millennials' buying behaviour is affected by the price of organic products, the variables concerning their annual income and their intention to pay higher prices for organic products, which is described by the fourth factor, will be analysed using cluster analysis. The first step is to find out the proper number of clusters. This will be resulted by the dendrogram which will be extracted using the Ward Method.

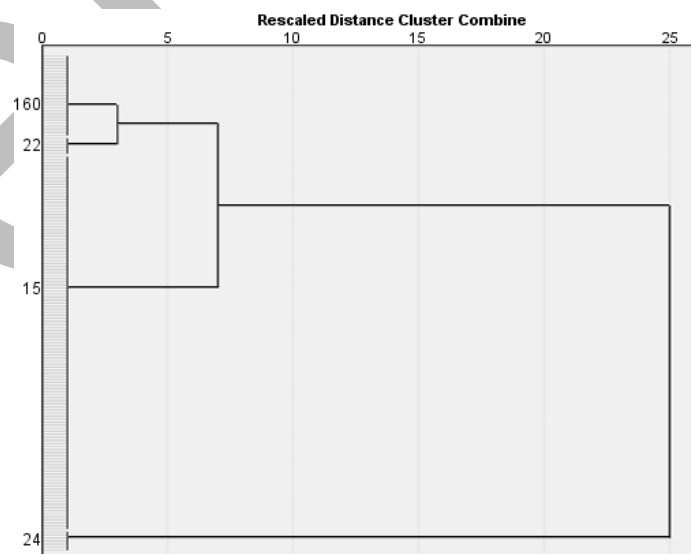


Figure 3: Dendrogram using the Ward Method.

The dendrogram in Figure 3 means that two clusters will be selected. The cluster analysis results may be described by Figure 4.

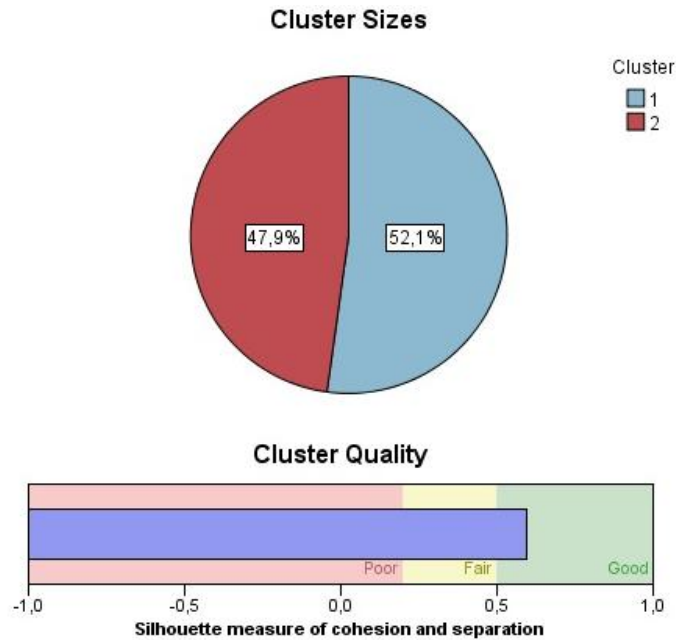


Figure 4: Cluster analysis results.

By cluster analysis results in Figure 4 can be resulted that the quality of the model is fairly good. The clusters selected by the annual income of the respondents are two. The first one (52.1%) concerns the consumers with annual incomes up to €22,000 and the second one (47.9%) the ones with annual incomes from €23,000 and on.

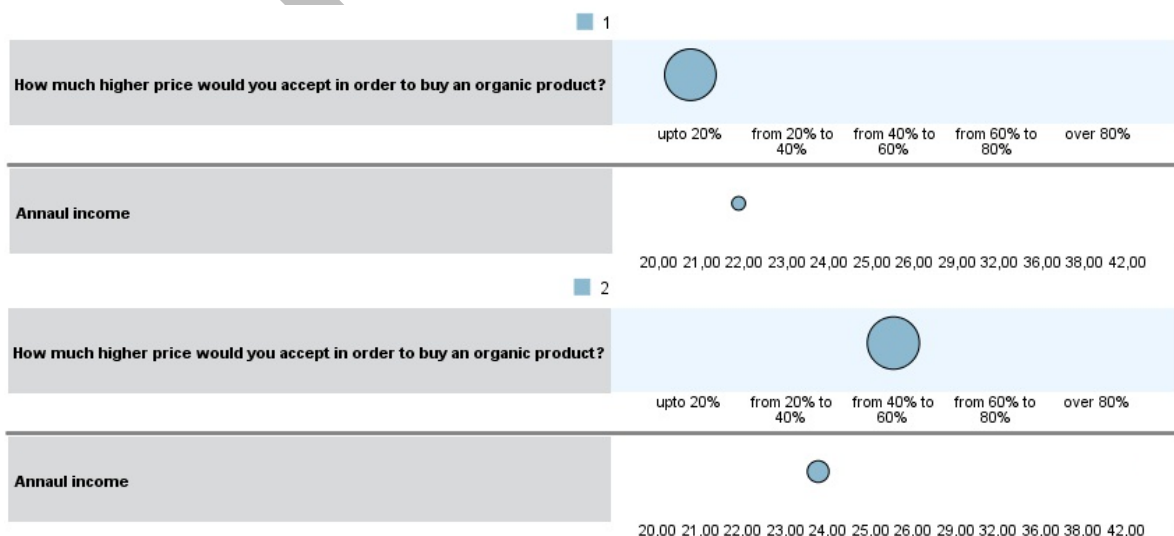


Figure 5: Clusters comparison diagram.

From Figure 5 becomes obvious that the most of the consumers with lower income will pay up to 20% higher price in order to buy an organic product in contrast to the most of the consumers with higher income who would pay from 40% to 60% higher prices.

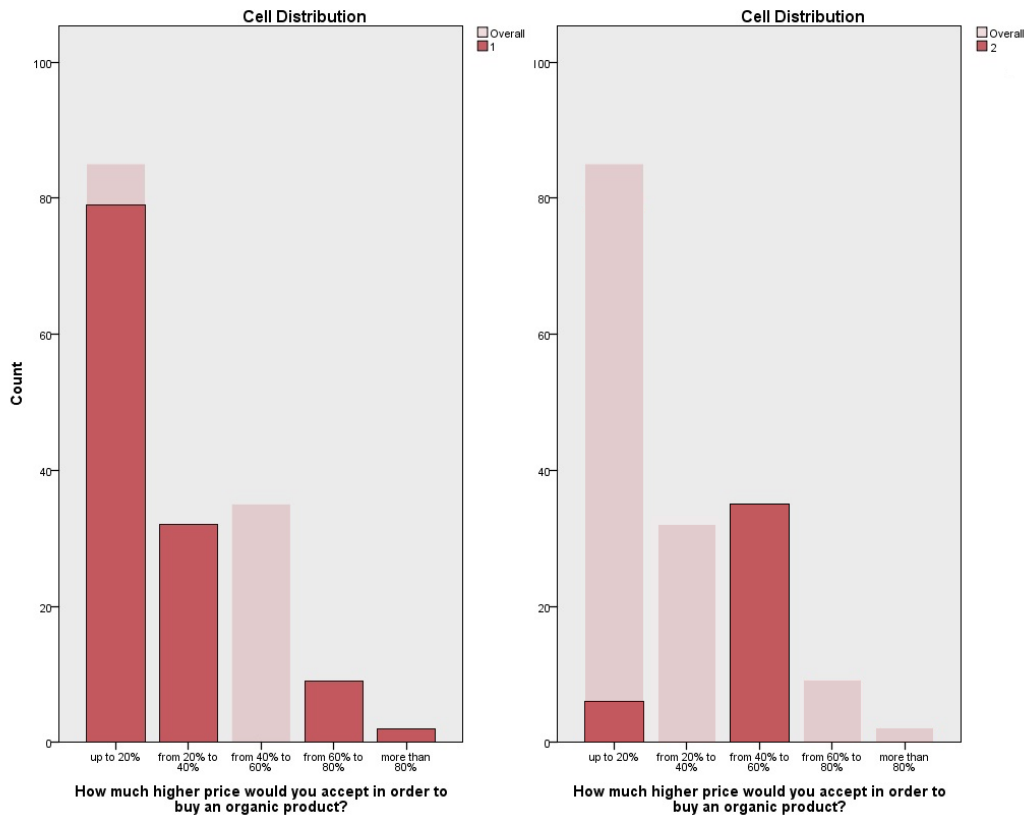


Figure 6: Clusters' cells distribution.

After a deeper analysis using Figure 6, despite the fact that totally most of the consumers in cluster 1 would pay up to 40% higher price in order to buy an organic product, there are some consumers that would pay from 60% and on higher prices. The last finding is highly interesting and should be examined further.

Through a cross tabulation analysis a possible correlation between the following variables and the occupation of the respondents' could be recorded.

Variables	Pearson chi-square	P-value
How much higher price would you accept in order to buy an organic product?	22.497	0.000
I would accept a higher price in order to buy an organic product.	13.489	0.009
I speak positively about organic products to my family and my friends.	19.731	0.001

Table 2: Pearson chi-square coefficient values and p-values for the cross tabulation analysis.

Through the cross tabulation analysis all the examined variable seem to be correlated with the respondents' occupation. These correlations lead to the result that the one part of the clustered sample, despite the fact that has lower income than the other one, has a very high loyalty for the organic products that will buy them at any cost. Examining furtherer the sample is recorded that consumers' with the lower income are students. This is compatible with the results of Lockie et al. (2004) about students' consuming behaviour concerning organic products.

The previous analysis shows that in the case of organic products Greek millennials have a greater willingness to pay extra money in order to buy organic products, which means that the research hypothesis H_2 is accepted. Moreover a part of the millennials which corresponds to the students, seem to be highly loyal to organic products and have the intention to pay much higher prices to buy them despite their lower incomes.

5. Results

The purpose of the study was to imprint Greek millennial consumers' perceptions on the organic products.

The Greek millennials responded to the questionnaire were clustered by their annual income in order to record an examinee their consuming behaviour concerning the organic products.

The main finding of this paper is that the Greek millennials seem to buy organic products and to have a greater willingness to pay extra money in order to buy organic products. This willingness is so high for a niche corresponding to the students which surpasses the obstacle of their low income.

More specifically, a part of the students, seem to have very high loyalty to the organic products which leads them to have the intention to buy organic products at any cost.

This part of the millennials students is a small and very specialized part of the market, a so called niche, which has to be treated by a proper marketing strategy by the firms selling organic products.

Furthermore the research concluded that important criteria for the Greek millennials to buy organic products are their quality, the certification, the taste, the variety and the firm name.

These results may be used by the marketing managers of the firms selling organic products in order to create the proper marketing strategies as millennials will dominate the markets for several years and as far as it is concerned their needs and perceptions should be taken into consideration.

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The impact of the economic crisis on the construction sector in Greece

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The purpose of this paper is to examine the impact of the financial crisis in the construction sector in Greece. Construction is one of the sectors of Greek economy which was the hardest hit by the financial crisis. Numeric data on the sales of new homes during the last years have been recorded and analyzed. Moreover, the stock prices of the Greek construction firms have been recorded and analyzed for the last years. Except for the financial crisis, the influence of various factors on the sales of real estate and the Greek construction firms' stock prices has been examined and analyzed as well. The results analysis has led to interesting results about how the economic crisis has affected the construction sector in Greece after its boom from the beginning of the last decade.

Key words: financial crisis, Greek economy, construction sector, real estate.

1. Introduction

The construction industry is one of the most important sectors of the Greek economy, which for many years was closely associated with the economic development of the country. Construction sector constitutes is for the Greek economy as it contributes about 1.5% of the total Greek production, compared to the European average, which is set at 0.8% (National Bank of Greece, 2011).

Construction activity is broken down into two sub-categories, Public Works and Private Works. Basic categories of projects undertaken by firms are home building, road construction, plumbing, electro-mechanical, industrial and energy.

The recession of the Greek economy since 2008 has negatively affected the private construction activity. The recession significantly affected the results of firms particularly the three years between 2009 and 2011, which created reclassifications in the industry that had as a result the downgrades of firms to smaller firms, firm bankruptcies and closures.

The significant expertise that mainly the largest firms in the industry have acquired in combination with the cessation of public works led some of them to seek opportunities outside the Greek borders.

The aim of this research is to examine the evolution of the construction industry in Greece during the economic crisis.

2. The development of the Greek economy during the crisis

The Greek economy got into recession for the first time in 2008, when a decrease of 0.16% was recorded in G.N.P compared to 2007 (I.M.F.). By the end of 2013, the recession in the Greek economy continued and G.N.P was overall decreased to 23.8% compared to 2007 (I.M.F.).

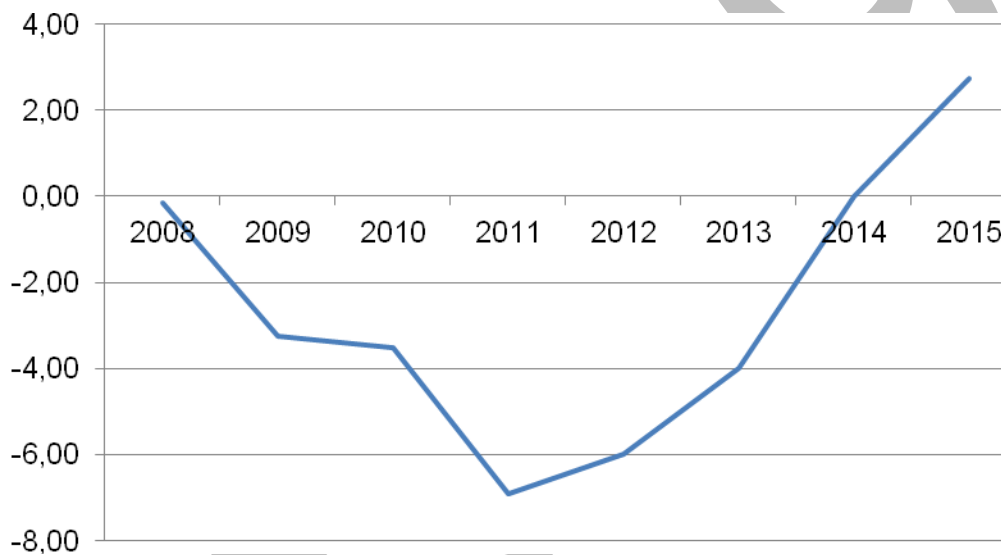


Figure 1: The annual percentage change in G.N.P. Greece for the period 2008-2012 and predictions for the period 2013-2015. Data source: I.M.F.

Inflation has been steadily decreasing since 2010 reaching negative rates for 2013, which is predicted to continue in 2014, while positive values are expected in 2015 (I.M.F.). The continuous disinflation contrasts with the Keynesian theory for increasing inflation in the case of funding deficits through loans, as it is done in Greece.

This trend, however, can be justified by the reductions of wages in the public and private sector, pension cuts, the increase of direct taxation by reducing the non-taxable income and the payment of new contributions, in combination with the impact of high-recession in employment, significantly reduced the domestic disposable income and consumer demand, which in turn brought confining pressures in increasing of the price level (Greek Foundation For Economic and Industrial Research, 2013).

Unemployment, which in 2008 stood at 7.68% rate is expected to reach 25.37% in 2013, while from 2014 on there is a gradual decrease (I.M.F). The study of figure 2 shows the relationship between inflation and unemployment as demonstrated by Philips (Howells & Bain, 2008).

More specifically, it is obvious that as unemployment rises, due to the excess supply of labor, salaries are reduced resulting in disinflation. The development of these figures is quite complex and is associated with many factors (Krugman & Obstfeld, 2009).

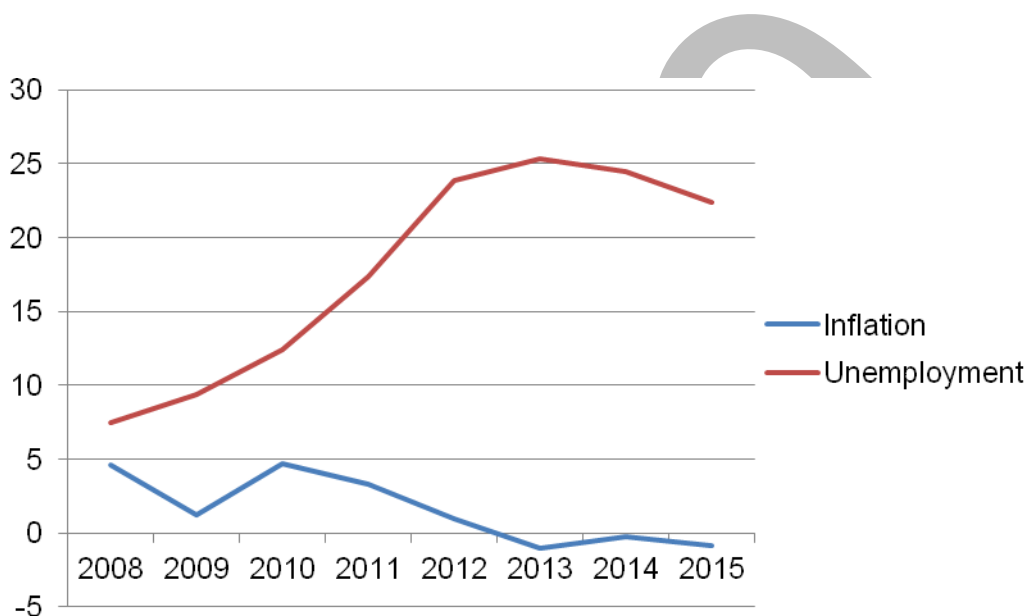


Figure 2: The evolution of inflation and unemployment in Greece for the period 2008-2012 and predictions for the period 2013-2015. Data source: I.M.F.

On the current account, the deficit shrank at 72.9% in 2012, compared to 2011 and was amounted to € 5.6 billion. This is € 15 billion less in comparison with 2011 and € 29.2 billion less in comparison with 2008 levels (Greek Foundation For Economic and Industrial Research, 2013). The deficit of the current account widens because of government deficits, according to the theory of double deficits (Vamvoukas, 2004).

3. Analysis of the construction industry during the crisis in the Greek economy

3.1. Development of building activity

The building and construction activity recorded from 2010 and after showed significant decline due to the economic crisis and the fiscal adjustment programs that were adopted and which particularly affected the industry. The evolution of the construction activity is illustrated in Figure 3.

Respectively, it is obvious that the evolution of the value of new construction during the crisis in the Greek economy is negative as perceived by Figure 4.

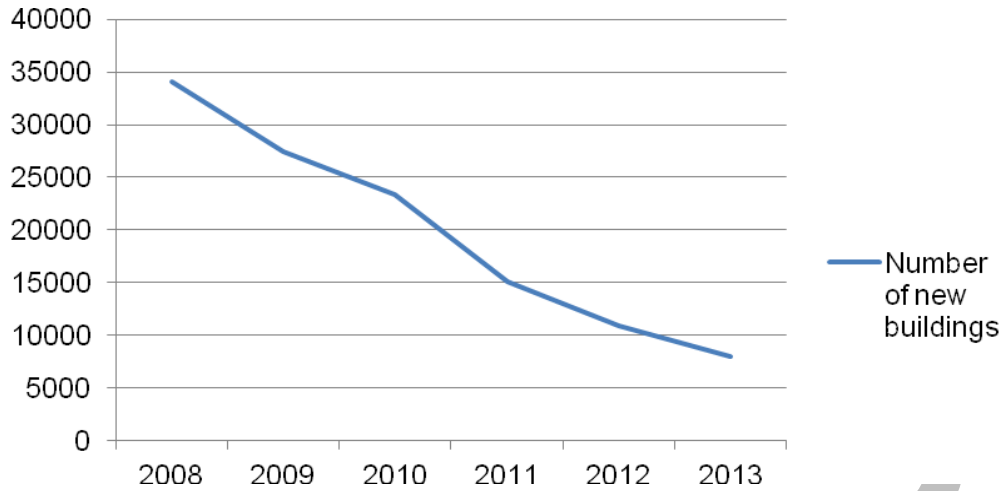


Figure 3: The evolution of the number of new public and private buildings from 2008 to 2013 Source of data: Hellenic Statistical Agency, 2013.

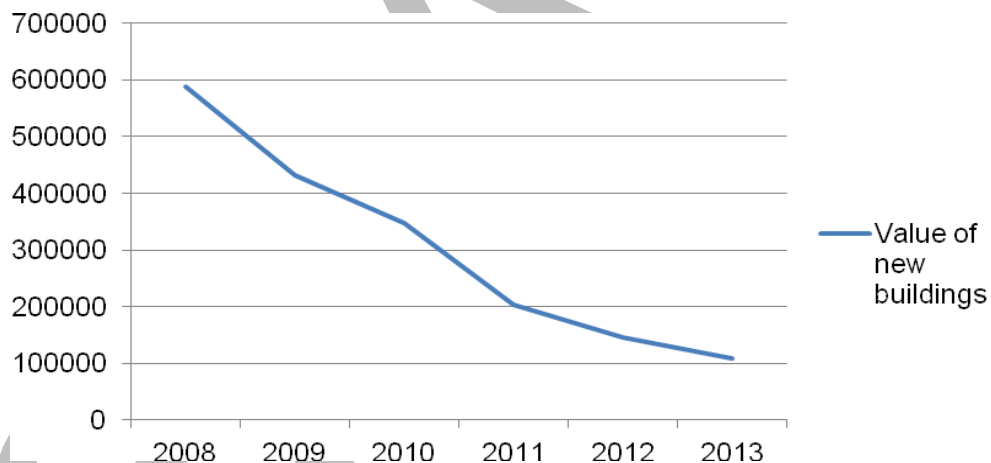


Figure 4: The evolution of the total value (in thousands of €) of new public and private buildings from 2008 to 2013 Source of data: Hellenic Statistical Agency, 2013.

The continuous decline in construction which came in a higher proportion from the reduction in private constructions, made the large firms of the sector to use lower assets, such as concessions and the energy in order to be able to survive.

3.2. Financial analysis of the construction industry

The firms of the construction industry, in addition to plummeting demand and increasing taxation, began to have difficulty collecting payments for projects executed by both the private sector and government entities. The situation created had direct effects on the financial figures of the industry.

The quick ratio is the quotient of current assets minus the stocks divided by the short term obligations (Jackson et al., 2009). Values above 1.5 are considered satisfactory, while the safety limit for a firm is the value 1 (Jackson et al., 2009).

2008	2009	2010	2011	2012	2013
1.19	1.28	1.21	1.16	1	1.17

Table 1: Quick Ratio index values Specific for the industry. Data source: ICAP, 2012; Athens Stock Exchange.

The quick ratio index values range in levels below satisfactory during the entire period from 2008 and after, while in 2012 the index price is just at the limit of safety. The index values mean that firms are marginally above the level at which they can serve their short-term liabilities.

The debt/equity ratio reflects the relation of equity to firm debt (Jackson et al., 2009). The higher the index is surpassing the value 1, the higher the firm is indebted (Jackson et al., 2009).

2008	2009	2010	2011	2012	2013
1.48	1.85	1.72	2.28	2.49	1.96

Table 2: Dept/Equity Ratio values for the industry. Data source: ICAP, 2012; Athens Stock Exchange.

The values of this ratio vary in levels of concern for firms since in any case they exceed 1 while there is a continuous increasing trend between 2008 and 2012. These values represent indebtedness of the firms of the sector.

Average collection period ratio and average payable period ratio are used additionally (Jackson et al., 2009). The point is that the average collection period should have as much as possible the smallest value, while the average payable period should have as much as possible the largest value.

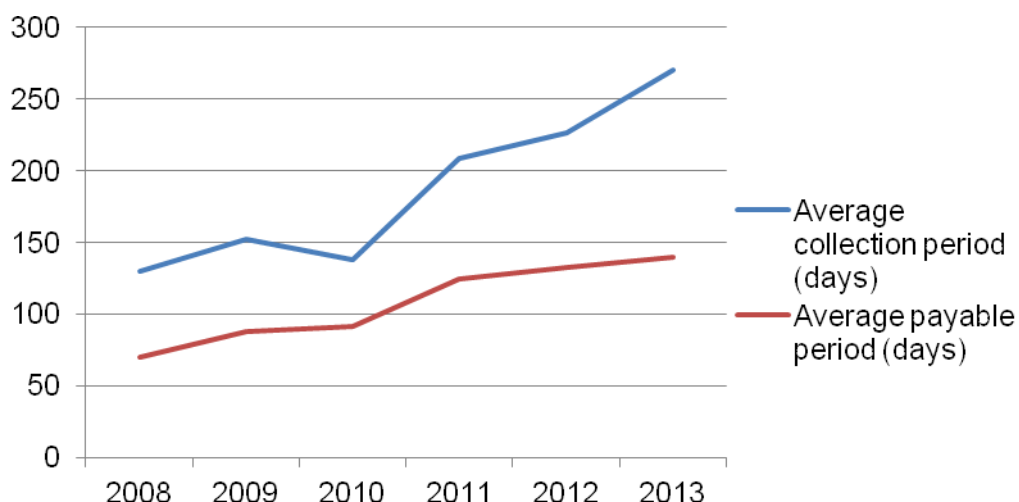


Figure 5: Average collection period ratio and average payable period ratio from 2008 until 2013 data
Source: ICAP, 2012; Athens Stock Exchange.

The examination of Figure 5 shows that the average collection period ratio minus the average payable ratio has a negative result during the period considered which means that firms will have to cover this difference either with short-term loans or with capital assets.

The net profit margin ratio determines the profit from the operating activities of a firm, namely the percentage of profit that remains in a firm after deducting the net sales of the cost of sales and other expenses (Carlberg, 2002). The higher the index number is, the more profitable is the firm (Carlberg, 2002).

2008	2009	2010	2011	2012	2013
-2.46	-9.59	2.85	1.28	-5.36	-2.71

Table 3: Net profit margin ratio for the industry. Data source: ICAP, 2012; Athens Stock Exchange.

The ratio values are negative throughout most of the period considered which means that firms show losses in the income statement.

Return on equity shows the capacity of a profitable firm, and provides an indication of whether the goal of a satisfying outcome, from the use of funds of the shareholder, was achieved (Carlberg, 2002). Namely, it measures the efficiency with which operators funds are engaged in the firm (Carlberg, 2002).

2008	2009	2010	2011	2012	2013
-3,13	-8,9	6,74	1,33	-5,54	-1,9

Table 4: Return on equity ratio values for the industry. Data source: ICAP, 2012; Athens Stock Exchange.

Since the ratio is calculated by dividing net earnings and the total equity, values are negative for the years of the period where net profit margin ratio is also negative.

The Assets ratio reflects the extent to which the funds are invested in a firm's assets (Carlberg, 2002). High extent of asset can mean high indebtedness, high depreciation and low liquidity (Carlberg, 2002).

2008	2009	2010	2011	2012	2013
33.93	32.54	34.3	35.67	35.42	34.37

Table 5: Assets ratio for the industry. Data source: ICAP, 2012; Athens Stock Exchange.

The assets ratio remains at the same level throughout the period considered. The nature of the industry and the general situation in it, justify the values of the sector.

3.3. Evolution of the stock price ratio in the construction sector

A stock ratio is essentially a category of selected shares from all the firms listed on the stock market.

If the shares that consist the ratio go up in value, then the ratio rises, whereas if the shares fall, then the ratio goes down too. There is the case, that some of these stocks thrive while others lose their value so that the ratio value does not change or alter slightly, despite the fact that all the shares sustained small or big change in value. This is because the ratio denotes the average value of stocks.

Figure 6 shows the evolution of the value ratio for the construction industry from January 2008 up to June 2014.



Figure 6: Evolution of the stock value index in the construction sector from January 2008 to June 2014 data Source: Athens Stock Exchange.

From Figure 6 the continuous downturn of the value ratio in the industry from the mid-2008 and after, becomes obvious while a slight upward trend is observed since the beginning of 2013. The total losses of the ratio are approximately 7,000 units from March 2008 to June 2014. These losses represent more than the 85%.

4. Conclusion

During the last years, the recession that has hit Greek economy, the inhibition of major public works, the cut of the public investment programmes and the decrease of construction activity have affected to a maximum degree the construction industry, which suffered important losses.

For the next years, any prediction for the evolution of the industry is risky, given the uncertainty in the Greek economy. However, under the current circumstances it is estimated that the examined sector in Greece will record a further decline (ICAP, 2012).

In this context, the construction firms should take advantage of the proven expertise, the experience available and the high level human skill resources as well, in order to maintain their market position. The axis on which firms could be supported are the undertaking of projects abroad or the cooperation with foreign firms for construction projects in Greece or abroad.

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Advancing prevention of cancer through Online Platforms

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1. Introduction

Cancer is a class of diseases characterized by out-of-control cell growth. There are over 100 different types of cancer, and each is classified by the type of cell that is initially affected. Nowadays, 8.2 million, people worldwide died from cancer in 2012, while the 30% of cancers could be prevented to the modern society, where networks provide access to all individuals, preventing on-line programs could be developed, aimed their education.

The aim of the online program will be to create a core of public health and clinical professionals who will be informed for the evolution in cancer therapy and prevention, while they will provide answers to the people concerned. Also, specialists will be positioned to generate new knowledge and public health practice to advance cancer prevention.

Moreover, the overall goal of this program will be the development of social networks, which will advance the prevention of cancer, through the education of patients and individuals for spreading the importance of preventing cancer. Last but not least, this program will sufficiently well anchored in professional networks that they will be able to monitor future developments in the field of cancer research and translate their knowledge into cancer prevention, research at a variety of institutional settings. Furthermore this program will give us the chance to make information spread widely around the globe with campaigns, advertisements and educational material.

In conclusion, prevention of cancer, through interactive educational system and traveling to communities all across world will advance the message that cancer is preventable, treatable and beatable.

2. The need of prevention

Immunizations, vaccines, check-ups, routine physicals--they're all essential to good health, but those without proper health guide are far less likely to get the preventive care they need, rather than treating a condition after it has progressed, prevention is much preferable, so as to maintain health. Preventive care, usually, include

check-ups, routine physicals and colonoscopies, besides prevention, the person should have a proper guide, so as to achieve better health outcomes.

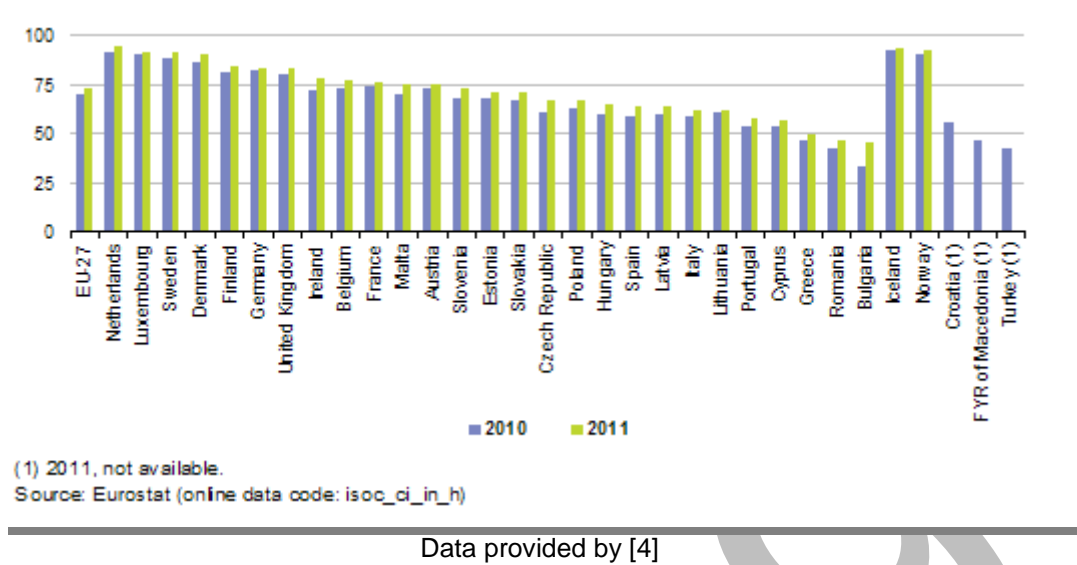
There are strong positive relationships between a healthcare team member's communication skills and an individual's capacity to follow through with medical recommendations, self-manage a chronic medical condition, and adopt preventive health behaviors. Many studies, which conducted during the past three decades, have showed that the clinician's ability to explain, listen and empathize can have a profound effect on biological and functional health outcomes as well as patient satisfaction and experience of care.

People' perceptions of the quality of the healthcare they received are highly dependent on the quality of their interactions with their healthcare clinician and team 2,3. There is a wealth of research data that supports the benefits of effective communication and health outcomes for patients and healthcare teams.

The overall goal of the on-line program will be to create a core of public health and clinical professionals who will be: (a) knowledgeable about the current state of the science of cancer prevention and will provide answers to the people concerned, (b) expert in a specialized research area in which they will be positioned to generate new knowledge and public health practice to advance cancer prevention, (c) skilled in transdisciplinary approaches to research in Cancer Prevention and Control; and (d) sufficiently well anchored in professional networks that they will be able to monitor future developments in the field of cancer prevention and translate their knowledge into cancer prevention research at a variety of institutional settings.

2.1. The power of data

In the last few years there is a continuously growth in the rates of internet access of households [4] which clearly defines that the digital era has not only come but also established and adopted to our lifestyle, making it a source not only for fun but also for education and information. Digital era is also known as 'information era'.



Using the power of internet and information and through this portal, individuals and patients will have the opportunity to discuss their concerns and take advice for their health, by many ways, such as e-mail, phone calls and video calls. Individuals would have the opportunity to be anonymous or by name, what makes them feel safe and calm. They will not only hear advice, but they can have conversation and see their interlocutor.

The health professionals would give advice for the nutrition and the diagnostic exams, which a person could take so as to prevent cancer. Individuals could discuss the symptoms that they have and the health professionals could guide them, properly.

Also, through this portal, people could fulfill questionnaires about their alimentation, therapy or symptoms and demographic data could be collected. Furthermore, the advertisement on the site could refund cancer research.

2.2. Specifications

- **Activities**
- **Access on Research**
- **Fund an advertisement for awareness**
- **Kickstart or suggest a campaign**
- **Discuss**
- **Video conference**
- **Involve in research and statistics surveys**

The uneven and very often the indeterminate quality of online health information spread around the internet raises concerns. The Internet is composed of over 3.32

billion pages most of them lacking consistent peer review, editorial systems, placing individuals and professionals in need of quality assessment standards.

This is why all topics and information on our portal will be filtered and evaluated with the best possible way. Special scientific councils will be created in order to manage and edit the amount of information and data that will be provided to the public through the portal.

Because we understand the importance of knowledge, we want people to have the opportunity to access research that has already being done for free.

Individuals will also get the possibility of kickstarting or suggesting their own campaigns supervised of course by the members of the platform and a special medical council. It is important for us to put the community in a self-developing road in order to raise people awareness and get the maximum possible prevention rates.

Moreover a special feature will be given, that will allow you to participate and involve in a future research and statistics surveys on cancer prevention as well as to videoconference in order to exchange scientific and not only opinions on various medical subjects related to the disease.

3. Conclusion

Treating a disease in its earliest stages can be relatively easy, sometimes requiring little more than a simple prescription. But helping a patient combat the effects of an advanced disease can prove extremely difficult, and sometimes impossible. Advancing prevention of cancer through interactive educational system traveling to communities all across world with the message that cancer is preventable, treatable and beatable.

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The Methods of Evaluating the Effectiveness of the Values Transformation in the Industrial Development

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The region is now taking part in a competitive struggle on markets of various levels. Therefore, in order to preserve the integral and locally mobile economy the approach to its development must be based not only on the theory of polar growth and structurally innovational regional development, but also take into account the socially oriented concept based on the theory of new growth, common wellbeing and also the theory of 'green growth'. It is obvious that the solution of economic issues must be perceived wider than simply technological development, and the innovational renovation of industrial branches must not be the goal in itself but be a means to boost the standards of living. For this reason to tackle the issues of industrial development it is necessary to employ not the utilitarian and strictly economic approach, but a wider social and economic one that would ensure the choice of priorities in industrial modernization which have to do with the solution of social problems. Thus, the industrial development itself acquires the industrial and social characteristics of the realization.

In the basis of the modelling mechanism lies the hypothesis that claims the absence of socially oriented mechanisms and strictly innovational and technological approach to the realization of the industrial development leading to underachievement in the economic effects, these effects being both easily avoidable and threatening for the regional and national economy. The modelling mechanism suggested allows to prevent social crises 5 years before unfavourable social and economic issues spring up. This model of industrial development programmes evaluation may be used as a supporting instrument in monitoring industrial development programmes realization, as well as an instrument that enables the direction of the industrialization to be corrected and the chief objectives updated.

Keywords: welfare state, a socially responsible business, industrial region, industrial development

1. Problem

The region is now taking part in a competitive struggle on markets of various levels. Therefore, in order to preserve the integral and locally mobile economy the approach to its development must be based not only on the theory of polar growth and structurally innovational regional development, but also take into account the

socially oriented concept based on the theory of new growth, common wellbeing and also the theory of 'green growth'. It is obvious that the solution of economic issues must be perceived wider than simply technological development, and the innovational renovation of industrial branches must not be the goal in itself but be a means to boost the standards of living. For this reason to tackle the issues of industrial development it is necessary to employ not the utilitarian and strictly economic approach, but a wider social and economic one that would ensure the choice of priorities in industrial modernization which have to do with the solution of social problems. Thus, the industrial development itself acquires the industrial and social characteristics of the realization.

2. Current understanding

The notion of the social state introduced in the middle of the 19th century by L. von Stein defined the new role of the state in solving social issues and endowed it with certain top-priority social functions that it had not had before. The state must consciously serve for the interest of the people since the underprivileged class is always going to pose a potential threat to the state where the power serves for the interests of the ruling class [3, P. 82]. Therefore, the fundamental objective of the state is to 'elevate' the lower classes and ensure social mobility, i. e. the opportunities for a person from any class to change one by way of modifying their position in terms of the production means [6, P. 49].

The basis of the Fabian society initiated in England under J. St. Mill deserves a special attention. Mill criticized the system of private ownership and wage-labour that brings about inequality and dependence of workers from capitalists as well as enmity between them. Nevertheless, Mill claimed not to strive for the abolition of private ownership, but its improvement and entitlement of every member of the society to its benefits [4, P. 360-361]. In other words, the Fabians followed J. St. Mill's ideas and claimed the necessity to socialize property by way of nationalization and municipalization, as well as enhancing the state control in the social and economic spheres. They planned measures like introducing graduated income tax, paid holidays, the legislative setting of the minimum wages, working hours, and the educational and medical care systems available for the people [8, P. 146-149].

As for business' social responsibility, the analysis of its definitions found in scientific literature has enabled us to define it as the activities of enterprises carried out voluntarily which are strategically aimed at satisfying the expectations and demands of the civil society with a view to providing a stable social and economic development of the regional economy. This understanding of business' social responsibility is also determined by the analysis of its chief stages of formation in the world society: from the 'economic' stage, the stage of 'the formation of corporate social responsibility' to the stage of 'global business participation in sustaining the society'.

The last stage of the business' social responsibility evolution is brought about due to the fact that a big business turns into a significant economic body and the power of its leaders is similar to that of politicians in terms of consequences of the decisions taken. Thus, a moment has come when a big business is capable of assuming part of the responsibility for the society at large – do more than a corporate civilian is expected to under what the law dictates and consider not the benefits alone, since

in this case the interests of a part (the business) and a whole (the society) coincide more and more.

Here one might refer to the principles of private enterprisers' social responsibility philosophy of A. Carnegie. In his most famous work 'The Gospel of Wealth' he claims that big enterprise is highly beneficial for the whole of the society by not only providing workplaces and redistributing parts of the takings as salaries, but also in charity when investing in cultural establishments and social welfare institutions [2, P. 124].

Initially man was perceived as a production factor, the source of the labour carried out or as 'workforce'. Thus, A. Smith claimed that boosting of workforce productivity depends firstly on the skills and experience of the worker and only then by the capabilities of the machines and tools employed. He supposed the level of production development to be determined by machines, land and the abilities of all members of the society. While being someone's individual characteristics, these abilities also become part of the riches of the society this person belongs to.

W. Petty noted that resources and people should be valued equally. According to the scientist, man being something that is not perennial, costs the same as land [5, P. 81-83.]. J. Mill noted that man's valuable qualities and even the productivity force, being as inalienable from him as worker's skills, form the basis for production development [4, P.139.]. K. Marks claimed that in the process of consumptive production not only does the workforce reproduces itself, but also improves and develops.

L. Thurow considered man as a combination of individual's abilities to produce goods and provide services, including production abilities and knowledge [7, P.15.] H. Bowen spoke about humans with acquired knowledge, skills, motivation and energy being able to be used for a certain period of time for production of goods and providing services [1, P. 362].

All the ideas of the famous scientists provided above reveal the economic content of man who is considered the force of production that directly takes part in the process of industrial work on enterprises.

Later, with the evolution in perception of society and production, man commenced to be considered as a valuable resource of a greater importance than natural resources or wealth. This happened due to the fact that as industrialization developed, man being directly engaged in the technological processes assumes the status of a controller which enables him to creatively employ his skills and initiate changes and those in industrial development in particular. In the works by the Nobel prize laureates Schultz and Becker it is proven that it is man and not machinery or production resources who determines the marketability, economic growth and effectiveness.

Today, man's prioritized role in production is accounted for by such qualitative characteristics as his ability to think creatively, make intuitive decisions, generate subjective estimations, transform the essence of a problem while tackling it, etc. Therefore, the economic result of industrial development depends directly on the extent of man's satisfaction with meeting his needs determined by certain values of this or that individual.

3. Research question and research design

The hypothesis of this research claims the absence of socially oriented mechanisms and strictly innovational and technological approach to the realization of the industrial development leading to underachievement in the economic effects, these effects being both easily avoidable and threatening for the regional and national economy. Therefore, the main goal of this research is to develop methodical tools on creation of the socially-oriented vector of regional industrial management, which is

The author's approach to the formation of socially oriented mechanisms of regional industrial development integrates two approaches to simulation of the values transformation.

The graphic approach is partly supported by the principle of the Laffer curve and methodically reflects the following idea: new technologies' institutionalization in the economic activities of industrial enterprises and ulterior modernization of the branches securing the technological upgrading will be thwarted and will yield low results in the conditions of low level of the population's satisfaction with its welfare and living standards. This issue can be eliminated by tackling regional social problems in the process of industrialization and the population's adaptation to the next step of industrial development.

For the simulation of the values transformation zone was used probabilistic approach. It allows to estimate an adressive events damage, which consist of the following social risks:

- 1) reduction in the proportion of employed people in the industry;
- 2) reduction of population' capital accumulation;
- 3) increase tension and conflict between management and key personnel due to low level education of workers in industry. It leads to low innovation activity, strikes, etc.;
- 4) increase morbidity;
- 5) reduction of the population social protection, who employed in the industry. It will influence productivity.

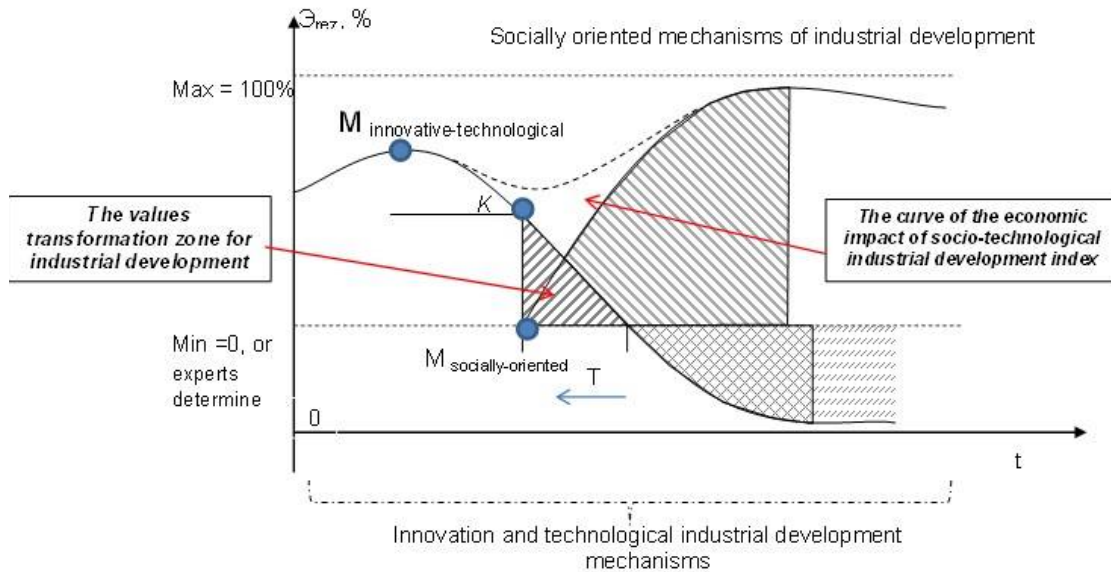


Figure 1: Graphic simulation of the values transformation zone in the process of regional industrial development

The integration of the graphical and probabilistic approaches described above to the zonal modelling of the values' transformation in the regional industrial development allows one to research the dynamics of changes in the possibility of unfavourable social happenings in industrial development and their economic disadvantages, as well as to encourage the balance in investments by their due redistribution between technologies and social duties and the responsibilities of enterprises and government authorities before the people.

4. Findings

The approbation of the mechanism developed in the instance of the Perm Region and the zonal modelling of the effects on the regional industrial development to be expected enabled us to define the times for securing the growth of the Gross Regional Product (2013-2071), the investment attractiveness (2014-2015) and the marketability of the region (2013 -2032). As a result, matrices of the estimation of the resulting effect on the industrial development in the Perm Region have been worked out and measures were formulated as regards reduction and prevention of negative consequences of social risks and the risks requiring immediate attention have been defined.

5. Contribution

The unique approach enables us to research the dynamics of changes in the possibility of unfavourable social happenings in industrial development and their economic disadvantages, as well as encourage the balance in investments by their due redistribution between technologies and social duties and the responsibilities of enterprises and government authorities before the people.

The main advantage of the unique mechanism is the prevention of social recessionary situations as it justifies the necessity of initiating socially oriented activities in advance. Thus, the costs and efforts will be substantially smaller than

when dealing with regional social and economic problems which may already be taking place.

6. Practical implication

The modelling mechanism suggested allows to prevent social crises 5 years before unfavourable social and economic issues spring up. This model of industrial development programmes evaluation may be used as a supporting instrument in monitoring industrial development programmes realization, as well as an instrument that enables the direction of the industrialization to be corrected and the chief objectives updated.

For the unique mechanism to work more efficiently, it has to be started not less than once a year. This will enable the evaluation of final resulting industrialization effects predictions to be made five years ahead. The trends of these indices will be gradually tracked. As soon as at a certain point the index reaches the minimal allowable level Θ_{\min} , measures to tackle social problems caused by the regional modernization must be immediately worked out and resorted to. If the tackling of the social issues starts, this will be the proof of a real transformation of the values.

With this situation being ignored, as already mentioned above, a big deviation from the desired positive effect of the regional industrial development is to be expected.

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Incitement motives of tourists and evaluation of a package tour: the case of Greece

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Every year tourists select Greece for their holidays, not only in the summertime but all year round. As the economic crisis reaches them, many prefer a package tour to visit the country.

Holiday packages are organized by tour operators and sold to the consumers by travel agents, independent companies many of whom cooperate with T.O. and others.

In 2005, a growing number of consumers have avoided holiday packages. They traveled by low cost airlines and booked their accommodation by themselves. In the UK, the decrease of holiday package market led to the consolidation of T.O. market, so at the moment there are a few large T.O, but most of them do not exist anymore. Under these “umbrella” brands, exists a whole range of different holiday operators, and low cost airlines have also created their own holiday packages.

In 2013, bookings of holiday packages saw a great comeback and low cost flights increased.

This paper focuses on the analysis of the main reasons a tourist selects a package tour in order to visit Greece. Specifically, we are studying the case of a package tour, enumerating and analyzing the most important factors that prompt tourists to select this particular package, as well as the main factors that affect a great degree of the returning process and the evaluation of the journey.

Keywords: Package tour, Tour Operators, Travel Agencies, Greece, Incitement motives, Mass tourism

1. Organized Tour Package

The organized tour package represents a complex tourism product, created in advance by the tourist agencies that are charged with settling the components of a vacation trip.

A traveller's need to reassure a great number of terms and conditions for his/her trip's normal outcome, made tourist agents take upon themselves the procurement of individual components of said trip and combine them into a single tourism product (accommodation, transport, nourishment, excursions, leisure activities etc).

The main advantage of an organized tour package is that it is considered well-defined and complete, ready to be distributed on the tourism market mostly as a product for mass consumption. The unified price of the package is paid in full ahead of the trip, something that relieves the tourist from distributing its total cost among its various components.

But the final price is the most defining aspect of selection of a package and the main advantage of the travel agents over the individual consumer, as they are able to buy bulk allocations of the individual components (aircraft seats, hotel beds, excursions etc) in much lower prices that the consumer cannot achieve. This is due to their bargaining power over the individual tourism product suppliers (Varvaresos 2013: 302-303).

2. Incitement factors of tourists for choosing an organized vacation package

According to Britten (2009), the popularization and democratization of tourism were the outcome of a dramatic increase in tourist demand, caused mainly by the members of the workforce expressing their biological need for rest and relaxation by everyday work-related stress and the tediousness of everyday routine.

However, travel stereotypes are constantly changing, thus influencing the spatial organization of the tourist flows. The tourism market changes and adapts itself to modern tourism data.

Undoubtedly, selecting an organized tour package is, for most tourists, the best solution for visiting Greece, and it is imperative to list and analyze the main factors leading them to their choice.

2.1. Price of the package tour

Transportation of the tourists and their accommodation in a tourist destination equals a certain financial cost, which includes individual costs for transportation, accommodation, nourishment, transfers etc.

However, because most tourist destinations offer an array of tangible and intangible products catering to different parts of the tourist market, final pricing covers a wide range of tourist products, which means that there are different prices for products of different quality levels. The total cost amounting to a visit to a tourist destination is analogous to the cost of the individual components and services comprising the tour package. The higher the cost of the individual tourist services of the package, the

higher the final pricing of said package is and, by definition, the higher the cost of vacation at a tourist destination. On the contrary, the lower the cost of the individual tourist services included in the tourist package, the lower the final pricing of said package is, and, by definition the lower the cost of vacation at a tourist destination (A Bair C. 2009).

Without a doubt, the so called “low-cost” service providers are the basis for the “autonomous tour packages”, in which the tourists book their air transfer and their accommodation on their destination via the Internet. Naturally, this is not to the advantage of the traditional Tour Operators (T.O.), because those consumers follow the principle of free distribution, without the mediation of the large international tourist agencies that have been defining incoming tourist flows and reservations in most markets for years. The competition between “established” T.O.s and “low-cost providers” on tour packages has reached its peak during the last years. The United Kingdom is a suitable example, as in this country the decrease in the organized vacation market led to the integration of the Tour Operator market. This gave the most benefit to the consumer-tourist, by providing him/her with tourist services in very affordable prices.

2.2. Time-saving

Selecting a tour package can be completed with a single transaction. The tourist contacts the tourist agency, from which he/she buys the complete vacation package, thus reducing by far the amount of time that would be needed if he/she tried to organize the trip all by himself/herself.

2.3. Organizing the trip

An organized tour package seeks to isolate or minimize all the possible negative surprises that are often part of a trip or vacation by individual tourists (Mintel 2013).

By choosing an organized tour package, a tourist automatically secures the “where, when, how” of his/her vacation, thus putting all the consideration to how better to satisfy individual needs. By buying a tour package, the tourist’s desire is the complementarity of the various services offered in the package. For example he/she knows in advance the date and time of arrival and departure, the conditions of his/her stay and the places to be visited. A sense of harmony in the trip and the activities at the intended destination gives the tourist a feeling of security and certainty, while he/she has the opportunity to calm down and relax, without the various worries arising from the necessary procedures of organizing the trip.

A special significance is given to a decision by a family to buy a package tour. It is known that the existence of kids in the family is a decisive factor for choosing the place and the time of the vacation (Bovagnet 2006).

2.4. Guaranteed quality of products and services provided

Package tours offer guarantee for the quality of the products provided, in the form of the contract for the realization of the trip. The detailed description of the product at

the brochures, the contract and the presence of the tourist agency's representatives at the destination, largely ensure the consumer's satisfaction.

2.5. The need for communication and entertainment

Vacations are held during a specific time period, when the search for other people and for communication with them is considered paramount. However, there are many individuals that wish to relax during the vacation period, to isolate themselves from all of their concerns. Undoubtedly, the great majority of tourists depart during the same time period for the same tourist destinations looking for relaxation, entertainment and, why not, the forging of new friendships, relationships etc.

The human need for communication and the desire for entertainment is strong and vacation is a chance for satisfying both. Most people see vacation as a holiday season, coming in stark contrast to the other months of the year and a mediocre, continuous and repeating lifestyle. Vacations offer the chance for renewal (both physical and mental), so the tourists can then return to their everyday way of living somewhat relaxed, waiting for the next "escape" (Garter, Lime 2000).

Organized tour packages and, mostly, mass transit to a tourist destination, offer a chance for people to meet, whereas during the activity schedule, human relationships are forged, stronger or more casual. Times when individual tourists selected the same package for the same destination as other individual tourists and then became partners for life and/or permanent residents of the destination where they met their significant other are not uncommon.

Lastly, an organized tour package is giving the tourists, if they wish, a chance to satisfy the human need of gaming. By selecting a specific tour package, a tourist knows beforehand that it gives him/her the chance to live in a world of gaming, where his/her wishes can be fulfilled (Tsartas 1996: 207). Modern organized hotels have increased their specialized services towards the fulfillment of this motive. Tourists, through the process of gaming, often change their consumer behavior and even differentiate their moral standards sometimes, looking for the liberty not present in their everyday lifestyle (Manolis, 2009).

2.6. Security

Security is a major factor in the process of selecting a destination. Increased incidents of terrorist activity are a major cause for concern to a traveler (Mavondo & Reisinger 2005).

A tourist needs to feel safe. This need, as well as the services offered, must be catered to by the service providers, as far as possible. This is why special attention is given to creating tour packages in safe destinations.

According to Varvaressos (2013), lack of security, apart from not activating all the motives of tourist demand, is also turning into an important factor of the spatial rearrangements of international tourist flows.

2.7. Guided Tour Service

The presence of a certified professional tour guide is included in many tour packages. The tour guide, apart from the guide services proper, is also charged with solving problems the tourists are facing during their stay at a destination and also offers psychological support whenever required.

Moreover, the tour guide helps tourists to better allocate their time by selecting the places and sites they are going to visit. Many tourists believe that, by selecting a package tour, they will learn a destination by listening to a professional tour guide.

2.8. The tourist's legal cover

Tour packages offer legal cover and obligations for refund in case of not meeting the terms of the signed contract. If the client denounces the contract, or if, for any reason not having to do with the client, the tour organizer cancels the trip before the arranged departure date, the client is entitled to ask for an organized tour package of the same or better quality. In case the package offered is of lower quality, the organizer is obliged to refund the price difference.

Moreover, if the organizing tourist agency goes bankrupt, guarantees are in place, ensuring the traveler that he/she will get his/her money back, whereas, if the trip has already started, he/she will be returned home. Practical details on those matters are always dependent on the national legislative frameworks and the insurance organization through which the agency has ensured the clients protection.

3. **Basic elements in the evaluation of an organized package tour**

Return and readjustment in the place of permanent residence and the workplace seems quite easy for a tourist in the present circumstances. But it would be short-sighted to consider the process of return to daily life as something pleasant, since, no matter how long the vacations are, we still want even more.

The tourist that has chosen a specific tour package evaluates the trip upon his/her return and sometimes this is the preamble to designing and choosing the next trip (Wang 2010: 154-179). Thus, it would be safe to say that the basic elements of a package tour that have an effect on its evaluation by the tourist are:

3.1. Total cost

The tourist, upon his/her return, evaluates the total cost of his/her visit to a destination. More specifically, he/she evaluates the prices of goods and services at the lodging site and outside of it, at the destination in general, so as to meet the quality standards he/she expects (Schiffman, Pearson 2007).

Without doubt, the global economic crisis had a great effect on tourism. The reduction in the consumers' available income is palpable and consumer trust has been significantly reduced. However, the devaluation of the Euro (the common European Currency) has made European destinations more attractive for citizens of non-European countries with fast economic growth. Short-term vacations, discounts and lower tourist spending are the trends at the time.

3.2. Organizing the trip

The travel agency's service package must conform to the tourist's expectations and provide comfort, both during the outgoing and the incoming phases of the trip (Swarbrooke, Horner 2004).

It's not unusual for a tourist to feel discomfort, because, in an attempt to capitalize on lower prices, tourist agents make him travel at nighttimes, leading to his/her exhaustion. Moreover, long delays and time-consuming queues bring fatigue, irritation and generally negative impressions for the whole package tour procedures.

3.3. Quality of the accommodation

The quality of the accommodation plays a very important part at the evaluation of the trip, because the tourist spends a great deal of his/her time in the premises and consumes the tourist services provided in the tour package.

It is a known fact that the quality of service and the functionality of the lodging facilities provide the elements that differentiate "vacations" from the familiar environment of the tourists, building a positive mood on the way.

3.4. Infrastructure and variety of activities at the destination

A tourist choosing this type of organized vacation is looking for organized infrastructure and services, as well as a variety of activities on the destination. He/She looks for something different from everyday life, expecting the best possible amount of "pleasure" (Morrison 2010). Moreover, a tourist seeks for "authentic" experiences, capable of designating the destination as "different".

3.5. Validity of information

Each tourist, before he/she arrives at the travel destination, has preconceived images, formed by advertisements and all the information received by the tourist guide publications and the travel agencies. More often than not, these images are different from reality, something that is disappointing for the tourist and creates a negative perspective that affects the trips overall evaluation (Bigne, Sanchez I., Sanchez J. 2001).

4. **Research Objectives**

The main objective of the present research paper is to highlight the factors that motivate tourists in choosing an organized package tour in Greece, as well as to pinpoint the basic elements of evaluation for this mode of tourist transportation.

After the cataloguing and analysis of the primary research results, combined with the researchers' personal knowledge base and the secondary research data, the ulterior objective is to determine the wishes of potential tourists concerning their choice in organized tour packages in Greece and the design of tour packages catering to those needs and specifications by the package tour organizers.

5. Methodology-Analysis

Primary research took place between May 26th, 2014 and June 1st, 2014 at “Eleftherios Venizelos” Athens International Airport, on tourists-consumers that were bound to travel in a domestic or international flight.

The instrument for collecting the sample’s answers was a structured questionnaire. A total of 758 questionnaires were collected, of which 250 were chosen as the primary sample, utilizing the systematic sampling technique. More specifically, the allocation of the sample is as follows (Table 1):

<i>Data</i>	Description	Frequency	Percentage
Sex	Male	133	53.2%
	Female	117	46.8%
	Total	250	100%
Age	< 18	10	4.0%
	18 – 29	68	27.2%
	30 – 39	97	38.8%
	40 – 50	39	15.6%
	> 50	36	14.4%
	Total	250	100%
Marital Status	Single	72	32.8%
	Married	178	67.2%
	Total	250	100%
Education	High School	115	46.0%
	University/College	94	37.6%
	Postgraduate degree	41	16.4%
	Total	250	100%
Occupation	Employee	108	43.2%
	Civil Servant	56	22.4%
	Freelancer	37	14.8%

	Unemployed	49	19.6%
	Total	250	100%
Monthly personal income	≤ 1000 €	147	58.8%
	1001 – 2000 €	93	37.2%
	2001 – 3000 €	7	2.8%
	≥ 3001 €	3	1.2%
	Total	250	100%

Table 1: Research Sample

6. Results

In this section we present the results of the research pertaining to the attractiveness of acquiring a package tour in Greece. Diagram 1 and Table 2 that follow, refer to the possibility that tourists-consumers will pay for an organized package tour.

More specifically, we can see in Table 2 that 84.8% of the consumers within our sample are almost certain to buy an organized tour package in order to visit a Greek destination, while 12.8% thinks it is possible. The possibility of not paying for a package is only 2.4 % of the total sample.

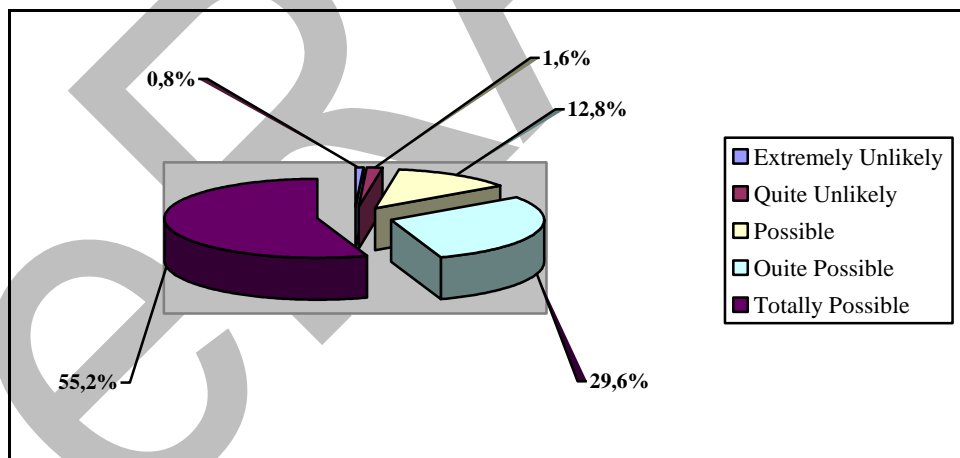


Diagram 1: Possibility for buying an organized tour package for vacations in Greece

Extremely Unlikely	Quite Unlikely	Possible	Quite Possible	Totally Possible	Total
2	4	32	74	138	250
0.8%	1.6%	12.8%	29.6%	55.2%	100%

Table 2: Possibility for buying an organized tour package for vacations in Greece

At Table 3, that follows, the main reasons for selecting an organized tour package are highlighted. Specifically, the most important reasons for a tourist to select an organized package are the cost of visit to a destination, the planning of the trip, the need of communication and entertainment, time-saving, guaranteed quality of services provided, services of a tour guide and legal cover.

Therefore, based on the particular data of this research, the extracted results shed light on the importance of the reasons for choosing a vacation package. More precisely, 97.2% of all those questioned believe that time-saving on the part of the tourist is an important or very important reason, both in the stage of planning as well as in the stage of executing the trip. 96.4% of the tourists wish the inclusion of tour guide services on their tour package, while 92.4% of them believe that the efficient organization of the trip by the organizer is a serious factor in choosing this type of vacation.

Given the reasons for choosing an organized package tour in Greece, guaranteed quality of services provided and the total cost of visit to the destination follow closely with 89.2% and 88.4% respectively. Moreover, safety with 86.0%, the need for communication and entertainment with 83.2% and finally, legal cover of the tourist with 82.4% conclude the total answer count.

	Extremely insignificant	Insignificant	Neither significant, nor insignificant	Significant	Extremely Significant
Total cost of visiting the destination	0	11	18	74	147
	0%	4.4%	7.2%	29.6%	58.8%
Need for communication and entertainment	1	6	35	113	95
	0.4%	2.4%	14.0%	45.2%	38.0%
Efficient organization of the trip	2	5	12	92	139
	0.8%	2.0%	4.8%	36.8%	55.6%
Time-saving	0	0	7	176	67
	0%	0%	2.8%	70.4%	26.8%
Safety	9	10	16	103	112
	3.6%	4.0%	6.4%	41.2%	44.8%
Guaranteed quality of the services provided	0	9	18	137	86
	0%	3.6%	7.2%	54.8%	34.4%
Tour guide services	0	2	7	177	64
	0%	0.8%	2.8%	70.8%	25.6%

Legal cover of the tourist	2	8	34	94	112
	0.8%	3.2%	13.6%	37.6%	44.8%

Table 3: The most important reasons for choosing an organized tour package in Greece

On Table 4 that follows, we can observe the elements that are deemed the most important and play a part in the evaluation of a package tour. Specifically, it was noted that tourists-consumers highly value the efficient organization of the entire trip and the quality of the accommodation. Infrastructure and the variety of activities at the destination, reliability and validity of information provided by the organizers, as well as the pricing are also considered important in the evaluation of an organized tour package.

More precisely, taking into account all the answered questionnaires, 99.2% considers the quality of the accommodation an important or very important reason, while 98.0% attaches importance to pricing. At this point, it needs to be mentioned that 58.8% of the research sample has a personal monthly income of less than 1,000 €, with 19.6% of the sample being unemployed.

The importance of infrastructure and the variety of activities at a destination comes after that with 97.2%, validity of information with 94.4% and the efficient organization of the entire trip with 92.4%

	Not Important	Somewhat Important	Quite Important	Important	Very Important
Efficient organization of the trip	5	0	14	94	137
	2.0%	0%	5.6%	37.6%	54.8%
Quality of accommodation	0	1	1	56	192
	0%	0.4%	0.4%	22.4%	76.8%
Infrastructure and the variety of activities at the destination	1	2	4	119	124
	0.4%	0.8%	1.6%	47.6%	49.6%
Validity of information	0	4	10	96	140
	0%	1.6%	4.0%	38.4%	56.0%
Pricing	1	1	3	51	194
	0.4%	0.4%	1.2%	20.4%	77.6%

Table 4: The most important elements for the evaluation of an organized package tour in Greece

7. Conclusions

At this research paper, we attempted to catalogue and highlight the main motives that tourists have, for choosing an organized tour package in Greece.

From the results of primary and secondary research conducted, we can assume the following:

- a. The cost of visit to a destination, the overall organization of the trip, the need for communication and entertainment, time-saving, safety, guaranteed quality of services provided, services of a tour guide, as well as the legal cover of the tourist in case of a mishap, are very important reasons for which he/she can choose an organized tour package.
- b. Tourists attach great importance to the overall organization of the trip and the quality of the accommodation. Moreover, infrastructure and the variety of activities, validity of information provided and pricing are considered equally important elements for the evaluation of an organized vacation package tour.

Without a doubt, the global economic crisis, unemployment and anxiety about the future are obstacles for a vacation trip. An organized package tour for Greece offers all the right motivation and elements that the tourists wish, in order to decide a future tourist excursion.

Considering the tourist destination, it is the single most important factor of the tour package and the criteria for choosing one must be rational, or else a string of highly problematic destinations are offered, with inescapable negative consequences on a tourist-centered economy at a local, regional and national level.

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Risk Management in Emerging Fashion Markets: The Methodology for Creating a Generic Model of Risk Assessment

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Abstract

In today's competitive environment many international corporations desiring to increase further their profits are turning into new emerging markets in hope of developing more their businesses. A number of apparel retailers have operations around the world including developing and developed countries. Their expansion strategies are associated with the need of considering all kinds of risks which are concealed in both types of markets. Therefore, companies operating in emerging markets must protect their investment and develop safeguards against risks. While emerging markets present a unique profile of risks such as geopolitical, regulatory, financial, currency and governance, a coherent strategy is necessary to be applied in order to ensure the competitive advantage in the emergent region. Consequently, the main purpose of this paper is to introduce a generic model of risk assessment which is based on risks, uncertainties and disruptions that companies have reported and they are connected with risks identified in specific markets in Eastern Europe. On the basis of risks and uncertainties, each of the selected companies presents information regarding risks according to their nature and risk appetite, including also information of the impact and the frequency of risks by measuring the risk factors of Political, Economical, Social, Technological, Legal, Environmental and Supply Chain. The generic model is developed following the IRM, COSO and ONDD frameworks and the analysis of risk factors will have a qualitatively approach.

Keywords: Risk Management, fashion retailing, emerging markets

1. Introduction

The new era of globalization has as a result fashion retailers to expand their operations in foreign markets, including developed and developing countries, launching their products to new customers. Their main purpose is to increase their competitiveness by identifying all kinds of risks they may face by doing business outside their domestic market. High priority is to keep customers' satisfaction at high level improving more and more their supply chain and logistical strategies [5] [14]. According to Jones the development of the apparel industry has happened through a number of changes to its performance according to trends in price, consumption, investment, trade and production which have declined significantly in most developed countries, thus making the textile and apparel industry extremely attractive to developing countries seeking to industrialise. In order to minimise their

expenses many fashion companies have shifted their production to emerging markets such as India, China and Eastern Europe where the labour cost is low [8].

Risk can be defined as the possibility that an event will occur and adversely affect the achievement of objectives of a business or cause of failure. It cannot be considered as definite thing such as an apple, a car or a telephone which are tangible everyday objects that everyone knows and recognises. Risk is intangible and can be perceived differently by different people not in terms of what the risks are but what the range of possible outcomes are and probabilities they attach to those outcomes. In the business area it relates to business risk appetite which means how much risk a business is able to accept [12].

The textiles and clothing industries have a long tradition in countries in Central and Eastern Europe (with Turkey and North Africa). These countries have become major suppliers of clothing to Western Europe. The biggest producer of textiles and clothing in Eastern Europe is Poland followed by the Czech Republic, Romania and Hungary. But, in recent years western firms shifted their sourcing to Romania and Bulgaria due to lower wage costs. The prospects for fashion industry are very positive especially for companies which offer fast fashion products and need therefore to minimise lead times [4]. In addition, the development of technology has considerably facilitated supply chain communications ensuring a quick and accurate flow of information. Over the last two decades Eastern Europe has become a very important market which will play a considerable role in the development of the fashion industry in the whole of Europe. Emerging markets present a unique profile of risks, such as geopolitical, regulatory, financial, currency and governance amongst others. It is therefore important to look beyond traditional strategies of the supply chain in order to meet the unique needs of each market and effectively leverage the diversification of each country at all levels [3] [9] [10].

Jobbers describes Europe as being a massive, largely deregulated area in which services, goods, capital and people among the member states can move freely. It encompasses developed countries such as Germany, France, Britain and also a large number of Eastern European countries with emergent and developing economies which have begun to take important steps necessary to adapt their economies to the effect of the international capital flow and globalisation making them more attractive to foreign direct investment [7].

2. Research Aims

The main purpose of this research is to identify and analyse risks are concealed in emerging markets in central and eastern Europe and to evaluate ways of managing these risks (financial, operational, political, natural, procedural, technical and so forth) in order to understand how a fashion company is able to gain competitive advantage and establish its business in a country which often has complex regulations and difficult bureaucracies. The decisions that fashion businesses undertake in order to accept the risks in entering such markets is explored to identify the strategies that can produce effective risk management. Once the threats were identified, the likelihood of the threat being realised was assessed its potential impact. The contribution of this research to knowledge concentrates on the modeling of the challenges a fashion retailer faces when entering emergent European member states. Taking into account the risks and how effective risk

management can lead to competitive advantage. It can be assumed that risk management can help seize opportunity as well as avoid danger [1].

Three countries in central and Eastern Europe, Hungary, Czech Republic and Greece were selected to show different levels of development. Four apparel retailers, Esprit, H&M, Mango and Zara were chosen for the case studies as they all operate in all three specified countries and they all have a similar target segment. The risks in the three countries were analysed following a PESTLE analysis model, while from the companies perspectives the risks were reported based on financial, social, environmental and supply chain issues. By considering the results from the case studies twelve models were developed to show the different levels of risk in six important areas in the business environment that can affect the business consolidation and process. As Sadgrove mentioned many companies are able to accept new ventures and risky acquisition while some others prefer to run a steady course. That means that the risk management depends upon the nature of the company and its risk tolerance. For this reason companies which tend to expand their operations in the international arena according to their risk appetite decide the way in which they will approach the market and which entry method is suitable for them [16].

2.1. Modeling the risk

The risks were measured by firstly considering their impact on the companies and then the likelihood of them happening according to the existing situations in each country. After studying the Risk Management framework published by the Institute of Risk Management (IRM) and COSO's framework, a scale, shown in table 1, was devised to determine the measurements. IRM's and COSO's frameworks have many similarities but also differences in the way the two organisations measure the risk, however the risk management process is very similar. IRM has generalised the risk and has focused on risk management as a rapidly developed discipline which exists in all aspects of life and not only in corporations and public organisations while COSO has focused on enterprise risk. Table 1 is a generic model which was developed having as its main basis IRM's approach and keeping also as good example COSO's framework. According to IRM the risk assessment contains parameters such as consequences and probability. The measurements of these two parameters were used in the generic model, table 1 by translating consequences 'as impact' and 'probability' as 'likelihood'. The impact measurement was divided into no impact, minor impact, serious impact and catastrophic and the 'likelihood' into rarely, sometimes, often, very often. The measurement of no impact and likelihood rarely, were added in case the risk identified does not have any influence on the companies' survival. The resulting models, one for each company in each of the three countries, identify the different levels of risk concealed based on ONDD's countries risk assessment considering the entry methods used relative to the PESTLE analysis. None of the companies have given a measurement in their risk factors, not either a time scale (frequency) of an event to be happened. Esprit and Mango entered the three markets using the franchise entry method thus exposing

the company immediately to lower risks as local entrepreneurs are responsible for the performance of the business, while Zara and H&M entered as wholly owned operations establishing subsidiaries.

IMPACT	LIKELEHOOD
1.N/I= No Impact	1.R=Rarely
2.M/I=Minor Impact	2.S=Sometime
3.S/I= Serious Impact	3. O=Often
4.C= Catastrophic	4.VO=Very Often

Table 1: Scale of impact and likelihood

To develop the models a set of tables were constructed showing the risks that each company was exposed to by measuring the impact and the possibility of the event happening when operating in these countries in accordance with the scale above (table 1). The risk factor number was then determined by multiplying the impact and likelihood figures, which also appear in the tables expressed as ratios*. The risks were analysed by using the PESTLE analysis tool adding to the end an additional risk which is the supply chain. The risks were divided into sub-risks as follow.

The political risk is divided into political unrest and terrorism.

Economical risk is divided into exchange rate, credit, interest, liquidity, sovereign and taxes-VAT.

Social risk is divided into market demand, qualified personnel, diseases and reputation

Technological risk contains IT and telecommunications.

Legal risk is divided into legislation, regulations and intellectual property.

Environmental risk includes natural disasters and climate changes.

Supply chain risk is divided into import and export barriers, logistics, relationship with partners or other suppliers and quality and safety of the products.

* Example: Esprit Risk Factor Measurement in Hungary

Political Unrest: Impact M/I (2) Likelihood S (2)-Risk Factor Impact x Likelihood=
2x2=4

Taxes (VAT): Impact S/I (3) Likelihood S (2)-Risk Factor Impact x Likelihood=
3x2=6

Taxes hide higher risk in comparison with the political unrest for Esprit

2.2. Market risk assessment

Comparing the risks-models in Hungary it can be seen that the political factors, social factors and technological factors pose the same risk levels for all four fashion companies with terrorism, market demand and IT all at level 4 warranting close attention. While the economical factors are at a very high level of risk 6 for Mango, H&M and Zara, for Esprit the exchange rates, credit, interest rates, liquidity and sovereignty are much more favourable for business with lower risk factors of 1's and 2's, with the exception of taxes and VAT which is level 6 for all companies. Taxes can lower the overall gains of a company and also reduce the overall cost and expense impacts. V.A.T. (value added tax) is essentially a percentage of the company's earnings taken by the government. It increases prices and decreases the company's net income. All the companies are exposed to risks associated with the economy however Esprit does not have any borrowings or other financial liabilities while H&M and Zara use economies of scale in both funding and administrative expenses, thus being able to face a pricing press more effectively. The exchange rate also plays a significant role as the market in Hungary trades in the local currency even though it belongs to EU it has not yet joined the Eurozone. The legislation regulations in Hungary pose the same high level of risk 6 for all four of the companies though intellectual property risk levels are also at level 6 for Esprit and are much lower for H&M, Mango and Zara at level 2. Governmental regulations affect a business and it is necessary to be familiar with them for the smooth running of the business. The Esprit group had reported that for its business the counterfeit product can expose the business to high risk. This is because Esprit has developed a brand name with retailing performance. Similarly, the country has a very high environmental risk factor for the companies with regards to natural disasters 6 and the same level of risk is determined for climate change for H&M, but a substantially lower level of risk 2 for climate change for the other three companies. H&M had reported that climate change can considerably affect sales as clothing follows seasonal changes, though it must be realized that this would be the same for any company.

In Czech Republic the political factors are the same for all four companies which are also the same risk levels in Hungary with terrorism at level 4 and political unrest at a much lower level 1. The economical factors posed by Czech are all substantially high risk at level 6 with the exception of Esprit which has the same low level as in Hungary, again due to the nature of the company. Esprit does not have any borrowings or other financial liabilities and always keeps sufficient amount of cash in case of any financial emergency, whereas H&M and Zara use economies of scale in both funding and administrative expenses. The problem with the exchange rate is still significant in Czech Republic as the market trades in Czech Koruna and not in Euro as the country belongs to the EU but not yet to the Eurozone. Similarly, the social factors and technological factors have the same levels of risk for all four companies, the values of which are identical to those in Hungary with market demand at level 4, thus requiring close scrutiny. The legislation regulations are of the same high risk level 6 in Czech for all four companies as in Hungary. However intellectual property risks differ between the companies with the lowest level at 2 for Mango and Zara, which is the same for these companies in Hungary, and a very high level 6 for Esprit and H&M. For Esprit this high risk factor is the same in Hungary due to its character as a luxury brand at affordable prices, but for H&M the risk factor for intellectual property was only level 2 in Hungary, which was also the

same for Mango and Zara, this is due to none of the companies having reported on counterfeit products as they act as retailers with their own brand name. The environmental factors are the same for all companies with natural disasters at level 6 and climate change at level 2 except for H&M where the climate change factor is a very high level 6. This is the same in Hungary and is due to the impact seasonal changes have on sales.

In Greece political factors are of a greater concern particularly the threat of terrorist attacks with a high risk factor of 6, two levels higher than Hungary and Czech for all four companies. The risk of political unrest is also greater in Greece than the other two countries but is still relatively low at 3. The economical factors for all four companies in Greece have similarities and differences. The taxes and VAT pose the same risks at a high level of 6 and exchange rate at level 1. However, while sovereignty, liquidity, interest rates and credit rates are all a high level of 6 for Mango, H&M and Zara, for Esprit these are all of a very low level 1 and level 2 for credit risk. This is because the company does not have any borrowings or other financial liabilities. The social factors are the same for all four companies in Greece with market demand at the highest factor level of 4 and the technological factor also the same for all four companies at level 3. Again the legislation regulations risk factor is a high 6, the same for Hungary and Czech, while intellectual property is at a moderate level 3 for all companies except for Esprit which is determined at an extremely high level of 9. This is incidentally the highest factor level for any of the PESTLE factors for any company in any of the three countries and is due to Greece currently having a weak intellectual law exposing greater risk for the reputation of brand names by not being able to control the movement of counterfeit products. Natural disasters risk factor is a high 6 for all companies in Greece and climate change again for H&M only is a high 6 compared to level 2 for the remaining companies.

2.2.1. *Supply Chain Assessment*

All four companies currently manufacture their products off shore which itself conceals risks. Although the four companies follow the same strategies to promote their image in the three countries, there are differences in the way they manage their supply chain. Therefore, according to the findings logistics has the higher risk factor at level 6. Any kind of disruption in a logistical system can affect quick response to market. The lowest risk factor element was found to be import and export barriers which do not exist for businesses operating within the European Union and therefore with accordance with the scale used shown in table1, no impact has a rating of 1 which was multiplied by a rare likelihood of happening, also rated 1 resulting in an overall risk factor of 1. The relationship between partners and suppliers and quality and safety stand at a moderate level of 3, as in accordance again with the scale (table 1), the impact was considered to be serious (level 3) but the likelihood of it happening is rare (level 1). In order to ensure the quality of their products all four companies have developed closed and long term relationships with their suppliers and partners.

3. Conclusion

For the accomplishment of the objective which is focused in the qualitatively measurement of the risk factors of the different types of risks in different markets according to their impact and likelihood in each country and company a case study approach was used which included direct and virtual observations. Three countries in Eastern Europe were selected, which in accordance with the hypothesis, had different levels of development. Four fashion companies were selected all of which having international presence and a similar target market. The countries selected were Hungary, Czech Republic and Greece and the fashion companies were Esprit, H&M, Mango and Zara. Detailed profiles were developed for the countries enabling the identification and hypotheses of risks. Similarly, detailed profiles of the companies enabled the risks reported in annual reports to be hypotheses and the management of these risks to be understood according to their nature and risk appetite. Twelve models were developed to test the hypothesis and to show the different levels of risk for each company in each of the countries. Risks, uncertainties or disruptions that the companies had reported were then linked with the risks identified in the three countries' markets.

The evaluation of the risk factors in each set of companies and countries by creating a generic model showing the different level of risk was following after the identification of risks concealed in each country for each company. On the basis of risks and uncertainties, each of the selected companies presented information regarding risk according to its nature and its risk appetite. The four selected apparel retailers experienced extensive international expansion. The main strategy for each is to approach any market to offer the latest fashion trends to consumers globally. Through their individual marketing strategies, supply chain and logistical systems, each had identified the disruptions or risks according to its own standards. The selected approach to enter a market plays a considerable role in how each company then faces possible risks and how to manage these and thus identify its own risk acceptance. As previously stated in the literature review, the entry method used by an international company depends upon the market position of the firm and also indicates the level of control the retailer will seek to exert over the foreign environment. Table 2 shows the expansion of the companies (during predominantly the last decade) through the number of stores, entry dates and entry methods and who owns the potential risks while operating in different markets.

Companies		Hungary	Czech Republic	Greece
Esprit	No of stores	11	9	13
	Date of 1 st entry	After 2000	After 2000	1998
	Type of Business	Franchise Partnership	Franchise Partnership	Franchise Partnership
H&M	No of stores	8	14	10
	Date of 1 st entry	2005	2003	2007
	Type of Business	Wholly Owned	Wholly Owned	Wholly Owned
Mango	No of stores	7(owned) 2(Franchise)	4(owned) 2(Franchise)	2(owned) 10(Franchise)
	Date of 1 st entry	1998	2001	1998
	Type of Business	Both	Both	Both
Zara	No of stores	3	5	41
	Date of 1 st entry	2006	2003	1993
	Type of Business	Wholly Owned	Wholly Owned	Wholly Owned

Table 2 Companies Information Summary

Esprit uses franchising in order to enter into each of the three countries, developing franchise partnerships. Mango uses the same method but through wholly owned stores. Franchising is a low cost and low risk expansion method the only disadvantage is recruiting the best franchisee with an appropriate financial foundation. H&M and Zara have approached new markets through wholly owned stores. However there are some exceptions in the countries where the regulations do not allow this type of operation and therefore franchise agreements have been developed instead. Zara and H&M have their own subsidiary in each of the three countries. The risk is higher than using the franchise system as the parent company is taking all of the risks of the business operation in each country. It can be seen in table 1 that Zara was the first to open a store in the Greek market in 1993 followed by Esprit and Mango in 1998. H&M opened its first store in the Greek market in 2007. In Czech Republic and Hungary all of the retailers entered the market in the last decade (after 2000) except for Mango which opened its first store in Hungary in 1998. The different entry dates can be explained in accordance with the transition stages of each country and its readiness to attract Foreign Direct Investment.

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Separating Municipalities regarding their Financial Performance & Financial Management: An Empirical Investigation of the municipalities in Greece

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Abstract

Municipalities are autonomous economic and administrative entities, with common actions and responsibilities. On the other hand, all municipalities are quite different considering specific characteristics, such as geographic, demographic and economic.

The aim of this research is to separate the entire sample of municipalities in Greece into categories, based on the effectiveness of financial management and financial performance into effective and ineffective ones. This investigation is substantial because it is very interesting the one in-depth observation of current situation of the financial management capabilities of municipalities, and additionally because it is crucial to extract the differences in specific characteristics between economical efficient and inefficient municipalities. For the separation of the sample into groups, cluster analysis was preferred. For this reason, three variables were used: the lending capacity of the municipality, flexibility in making non-investment costs, and flexibility in investment spending. These three variables were considered to be the key dimensions of effectiveness in financial management and therefore their use, representatively describes the effectiveness or not of Greek municipalities. In this study, we investigated the existence of differences between the characteristics of these two categories. The features are “how municipalities are working with specialist consultants” and “how municipalities are using modern technologies”. The main objective is to investigate the influence of these two characteristics in the efficiency of managing financial resources.

Keywords: Greek Municipalities, Local Development, Financial Performance, Financial Management, Empirical Investigation

1. Introduction

Municipalities are autonomous economic and administrative entities, with common actions and responsibilities. However, not all municipalities are the same when considering specific geographic, demographic, economic and other characteristics. The aim of this research is to divide the entire sample of municipalities in Greece into categories, based on the efficiency of financial management: efficient and inefficient municipalities. Cluster analysis was used to separate the sample in groups. Three variables were used to create the clusters in this research: a

municipality's borrowing capacity, flexibility in non-investing costs, and flexibility in investing costs. These three variables were considered to be the key dimensions of efficiency in financial management; therefore, their use is illustrative of the efficiency or inefficiency of Greek municipalities. In this research we identified differences between the characteristics of the two categories. These characteristics are collaboration with expert advisors and the use of modern technologies in Greek municipalities. The key objective is to identify how these two characteristics affect efficiency in managing funds, i.e. the financial performance of municipalities.

The following chapter will present the methodology used, including a description of the sampling and data collection process, determination of the population, specification of the scope of the sample, definition of the sampling unit, etc. The third chapter will present the results of the methodology used, and the fourth will present the results of data analysis. Finally, the fifth chapter will set out the overall conclusions of the research.

2. Methodology

3.1. General

This chapter presents the research methodology adopted in conducting this empirical project. More specifically, it includes: (a) the definition of population and the study sample, (b) the data collecting method, (c) the response to the survey and the characteristics of Municipalities participating, and (d) the process whereby the research tool used to collect data was created (structured questionnaire) and its analytical presentation.

3.2. Sampling and Data Collection Process

The process of choosing the sample and collecting data is complex and includes six stages (Stathakopoulos, 2001): Definition of population, Determination of the sampling frame, Definition of sampling unit, Determination of sample size, Implementation. From this process the total number of respondents that will participate in the survey emerges.

3.3. Definition of Population

The first and most important step in the primary data collection process is to define characteristics on the basis of which the population to be examined will be defined (Churchill and Iacobucci, 2002). The full definition of the population requires the inclusion of four basic parameters: the item, the sampling unit, the extent of the sampling and the time (Parasuraman et al., 2004). The item and sampling unit in this survey are defined as the Municipalities of Greece, the extent of sampling concerned the whole of the Greek state and the time it was conducted was from 10 June 2010 up to 30 September 2010. Communities in Greece were excluded from the population in the survey due to their small size and different needs in relation to the Municipalities. So in the end, the survey population was defined as being the

914 Greek Municipalities throughout the state, as recorded in the inventory of the National Statistical Service (2001).

3.4. Determination of the Sampling Frame

The next step, after defining the population to be examined, is to locate a sampling frame which must be composed of the fullest and most accurate inventory possible of members of the population to be examined (Churchill and Iacobucci, 2002). The sampling frame used in this survey was the most recent inventory of the National Statistical Service (2001) which includes the census of the population of Greece based on geographical Districts, Prefectures, Municipalities and Communities.

3.5. Definition of the Sampling Unit

The sampling units were defined as being the Greek Municipalities. As regards the respondents from whom survey data was collected, the «key informant method» was used, meaning the person in the survey unit (Municipality of Greece) who had the greatest knowledge of the subject of the survey. This method reduces to a satisfactory degree any concerns regarding the reliability of answers given by respondents, as the respondent chosen in each unit is the best available person with knowledge of the data that must be collected through the survey (Phillips, 1981), (Kumar, Stern and Anderson, 1993). In this survey the key informant was chosen to be the Mayor in each Municipality examined.

3.6. Choice of Sampling Method

Sampling methods considerably affect the possibility of generalizing the results. In order that the results emerging in the sample might be generalized throughout the total population, a probability sample must be used (Kinnear and Taylor, 1987) in which each unit in the sample has an equal chance of being selected from the population. The safest way of producing a probability sample is the population census and the definition of the total census as a sample in the survey (Stathakopoulos, 2001). This method was followed in this survey, ensuring the generalization of results.

3.7. Determination of Sample Size

As a result of the census method, the size of the sample coincides with the size of the population in the 914 municipalities recorded in the inventory of the National Statistical Service (2001).

3.8. Implementation

With reference to conducting the survey, the two following sub-paragraphs explain the method of contact with the respondents and the reasons they were finally chosen, as well as the results of the method.

3.9. Method of Contact

Completion and collection of questionnaires was carried out during the period from 10 June 2010 to 30 September 2010 in one phase with the use of self-completion questionnaires. The sample in the survey (which coincides with the population in the survey) is characterized by considerable heterogeneity, as it has been specified that it will be all the Municipalities in Greece. The choice of such a kind of sample contributes to the chance of generalizing the results of the survey, as in order for the results of a survey to be generally applicable, heterogeneous samples are preferred (Hooley, Lynch and Shephard, 1990, Kohli and Jaworski, 1990, Narver and Slater 1990, Ruekert, 1992). In order for the sampling units (Municipalities of Greece) to be approached as a sampling frame, the inventory of Municipalities from the National Statistical Service was used. One of the most common problems appearing during the use of inventories is the level to which they have been updated. The inventory used had been drawn up in 2001 and is the most recent. During the time the survey was being conducted, no cases occurred in which a Municipality could not be approached due to a wrong entry in the inventory. Sampling units were approached by mail. This took the form of the delivery of the questionnaire along with an accompanying letter to each Municipality, for the attention of the Mayor, by mail, email or fax, which explained to the recipient the purpose of the survey. This was preceded by telephone contact regarding the dates the questionnaire would be delivered and handed back. This method obliges the respondent to respond within a fixed time (Stathakopoulos, 2001). Respondents returned the completed questionnaires using the same method, via mail, email or fax, on the dates specified. The choice of only one respondent from each sampling unit (key-informant) involves the risk of collecting information that bears no relation to reality, but reflects his personal views. However, the achievement of research objectives required that the respondent be the Mayor in each Municipality so he was in a position to speak about them accurately and in detail.

3. **Research Results**

The method of collecting data that was used, in the end brought about the collection of questionnaires from 299 Municipalities out of the total of 914 that had been specified as the sample population. This result provides a response percentage of 33% which is considered quite satisfactory, on the basis of the method adopted (Kinnear and Taylor, 1987). As described in table 1.1 the 299 Municipalities that responded to the survey represent the total population as there was good stratification and representation from all Prefectures in Greece with fairly satisfactory response percentages in each Prefecture. The Greek Municipalities that finally answered the questionnaire represent all the Municipalities in Greece as there was no Prefecture in which the individual response percentage was not satisfactory. Out of the 299 questionnaires collected, 41 were excluded from the analyses due to a large number of answers to questions that would have reduced the statistical reliability of the findings. Additionally in these 41 excluded questionnaires, cases were observed in which the respondents misinterpreted the hierarchical questions. In the end out of the 299 questionnaires 258 exploitable ones were taken into account in the survey (87%), a number which is statistically acceptable (eg. Hooley, Lynch and Shephard, 1990, Kohli and Jaworski, 1990, Narver and Slater 1990, Ruekert, 1992).

3.1. Measurement Tools

This paragraph presents the process of creating the survey tool (structured questionnaire), as well as the result of this process – in other words, the questionnaire used in this survey to collect data. During the preparation of the questionnaire that was finally used, a logical flow of questions had to be achieved. The questions have to be easy to understand, easy to answer and arouse the interest of the respondent with the aim of gradually involving him in the survey. In following questionnaire design practices (Kinnear and Taylor, 1987, Tull and Hawkins, 1987, Churchill, 1991), an attempt was made to avoid leading questions that would perhaps direct the respondent to specific answers. Before the questionnaire took on its final form, pretesting was carried out twice. Initially, the questionnaire was tested by three independent teachers. Following the incorporation of their observations and prior to the start of data collection, the questionnaire was pretested a second time so as to ensure that the questions it contained were clear and easy for the respondents to understand. In the second pretesting a total of 10 Mayors took part from both large and small, urban and regional municipalities, with each of whom lengthy discussions were held regarding the content, type and flow of questions, as well as the arrangement of the sections based on the instructions in the relative article by Reynolds, Diamantopoulos and Schlegelmilch, (1993). Following the evaluation of observations made by participants in the pilot study, certain questions were rejected and others recomposed, after consultation with the academics who had initially tested the questionnaire. In the end, the questionnaire used to collect data is made up of closed-ended questions. More specifically, the questionnaire examines the views of Mayors in each Municipality concerning: What are the modern financial tools that can be used by municipalities? How they evaluate them? What they suggest what and what they prefer? In the questions a hierarchical scale was used, as the respondents had to grade specific factors given to them from the most important to the most insignificant.

Geographical Districts	Prefectures	Municipalities Participation (number)	Total Number of Municipalities	Response	Municipalities Participation (population)	Total Population of Municipalities	Response
Attica	Athens	24	48	50%	1.111.093	2.664.776	42%
	Eastern Attica	9	26	35%	212.327	365.731	58%
	Western Attica	5	12	42%	115.702	150.847	77%
	Piraeus	9	16	56%	319.164	540.540	59%
Subtotal		47	102	46,07%	1.758.286	3.721.894	47,24%

Rest of Central Greece and Euboea	Etoloakarnania	7	29	24%	75.881	224.429	33,81 %
	Boeotia	7	18	39%	68.524	125.681	54,52 %
	Euboea	9	25	36%	31.968	212.993	15,01 %
	Evrytania	5	11	45%	12.542	32.053	39,13 %
	Fthiotida	9	23	39%	42.466	177.631	23,91 %
	Fokida	4	12	33%	15.190	48.284	31,46 %
Subtotal		41	118	34,74 %	246.571	821.071	30,03 %
Peloponnese	Argolida	6	14	43%	52.326	104.323	50,16 %
	Arcadia	7	22	32%	28.055	101.444	27,66 %
	Achaia	7	21	33%	27.611	321.389	8,59%
	Iliia	5	22	23%	7.849	193.288	4,06%
	Corinthia	6	15	40%	87.142	154.624	56,36 %
	Laconia	9	20	45%	32.404	97.966	33,08 %
	Messinia	6	29	21%	72.767	175.213	41,53 %
Subtotal		46	143	32,16 %	308.154	1.148.247	26,84 %
Ionian Islands	Zakinthos	2	6	33%	16.475	39.015	42,23 %
	Corfu	4	13	31%	18.279	110.317	16,57 %
	Cefalonia	4	8	50%	14.448	38.435	37,59 %
	Lefkada	2	6	33%	4.444	21.843	20,35 %
Subtotal		12	33	36,36 %	53.646	209.610	25,59 %
Epirus	Arta	2	13	15%	9.126	75.634	12,07 %
	Thesprotia	2	8	25%	9.527	43.071	22,12 %

	Ioannina	10	28	36%	25.967	165.500	15,69 %
	Preveza	2	8	25%	14.385	58.304	24,67 %
Subtotal		16	57	28,07 %	59.005	342.509	17,23 %
Thessaly	Karditsa	6	20	30%	32.286	127.774	25,27 %
	Larissa	9	28	32%	173.782	272.966	63,66 %
	Magnesia	8	22	36%	22.214	202.632	10,96 %
	Trikala	7	23	30%	64.352	134.963	47,68 %
Subtotal		30	93	32,25 %	292.634	738.335	39,63 %
Macedonia	Grevena	4	8	50%	17.273	35.255	48,99 %
	Drama	2	8	25%	11.215	103.545	10,83 %
	Imathia	4	12	33%	52.620	143.618	36,64 %
	Thessaloniki	14	45	31%	263.496	1.057.825	24,91 %
	Kavala	4	11	36%	89.436	145.054	61,66 %
	Kastoria	2	12	17%	6.117	52.063	11,75 %
	Kilkis	4	11	36%	35.481	88.654	40,02 %
	Kozani	6	16	38%	75.182	152.138	49,42 %
	Pella	3	11	27%	51.276	145.797	35,17 %
	Pieria	3	13	23%	21.074	129.846	16,23 %
	Serres	5	22	23%	88.768	197.774	44,88 %
	Florina	2	8	25%	17.267	51.770	33,35 %
	Chalkidiki	3	14	21%	14.166	104.894	13,51 %
Subtotal		56	191	29,31	743.371	2.408.23	30,87

				%		3	%
Thrace	Evros	4	13	31%	26.207	149.354	17,55 %
	Xanthi	2	7	29%	52.270	97.525	53,60 %
	Rodopi	4	9	44%	62.770	104.854	59,86 %
Subtotal		10	29	34,48 %	141.247	351.733	40,16 %
Aegean	Dodeca nese	7	25	28%	89.869	189.152	47,51 %
	Cyclade s	8	20	40%	35.824	106.836	33,53 %
	Lesvos	4	17	24%	23.231	108.747	21,36 %
	Samos	2	8	25%	14.622	43.595	33,54 %
	Chios	2	10	20%	2.920	53.408	5,47% %
Subtotal		23	80	28,75 %	166.466	501.738	33,18 %
Crete	Iraklio	7	26	27%	171.971	292.489	58,80 %
	Lassithi	3	8	38%	45.683	74.613	61,23 %
	Rethym non	4	11	36%	10.456	82.956	12,60 %
	Chania	4	23	17%	22.400	149.703	14,96 %
Subtotal		18	68	26,47 %	250.510	599.761	41,77 %
Total		299	914	32,71 %	4.019.89 0	10.843.1 31	37,07 %

Table 1: Respondents per Prefecture

4. Data analysis

4.1. Division of sample into categories depending on financial performance

This section of analysis aims to divide the entire sample into categories, based on financial management efficiency (efficient - inefficient municipalities). There are two reasons for this analysis: first because of the interest that the in-depth observation of the current situation demonstrates relating to the abilities of municipalities in financial management, and second because of how crucial it is to look into the differences in other characteristics between efficient and inefficient municipalities. Cluster analysis was used to separate the sample in groups. This statistical analysis

is a widely used method in various scientific fields, including biology, IT and marketing (Kinnear and Taylor, 2004). The aim is to explore the possibility of dividing the sample into clusters based on one or more characteristics (variables) (Kinnear and Taylor, 2004). The resulting clusters should differ significantly in the characteristics used in order for the analysis to be useful. In this research, three variables were used for the creation of clusters, whose descriptive details were analysed in the previous section, and which are: a municipality's borrowing capacity, flexibility in non-investing costs, and flexibility in investment costs. These three variables were considered to be the key dimensions of efficiency in financial management; therefore, their use is illustrative of efficiency. The method used for the division into clusters is the K-Means partitioning method. This method predetermines the number of clusters into which the sample is divided. In this research, the number of clusters was set at two because (a) theoretically, dividing municipalities into efficient and inefficient makes more sense, and (b) this number is considered to be most appropriate when the variables used for division are more than two (Kinnear and Taylor, 2004). The results of cluster analysis are shown in the following tables.

Final Cluster Centers		
	Cluster	
	Cluster1	Cluster 2
Municipality's borrowing capacity	3	2
Municipality's flexibility in non-investing costs	3	2
Municipality's flexibility in investment costs	3	2

Table 2: Cluster centers for the three questions

Number of Cases in each Cluster		
Cluster	1	110
	2	146

Table 3: Number of answers in each cluster

As shown in the cluster analysis tables, the observations that resulted from sampling can indeed be divided into two groups on the basis of the three questions above. The first cluster includes 110 municipalities, while the second one includes 146 municipalities. The value for the first cluster centres (central observation) was 3 for all three variables, while the value for the second cluster centres was 2 for all

three variables. Considering that the potential answers to the questions used ranged from 1: very good to 4: poor, the first cluster can be named “Municipalities with inefficient financial management” and the second cluster can be named “Municipalities with efficient financial management”. A cross-tabulation analysis was used to identify whether the answers to the three questions were different for the two clusters. The results of this analysis and of the relevant x2 (Chi-Square) test are shown in the following tables:

Crosstab							
		Municipality's borrowing capacity					
			VERY GOOD	SATISFACTOR Y	MEDIU M	NOT GOOD	Total
Cluster Number of Case	1	Count	8	26	58	18	110
		% within Cluster Number of Case	7,3%	23,6%	52,7%	16,4%	100,0%
		% within Municipality's borrowing capacity	9,2%	31,0%	89,2%	90,0%	43,0%
		% of Total	3,1%	10,2%	22,7%	7,0%	43,0%
	2	Count	79	58	7	2	146
		% within Cluster Number of Case	54,1%	39,7%	4,8%	1,4%	100,0%
		% within Municipality's flexibility in	90,8%	69,0%	10,8%	10,0%	57,0%

		non-investing costs					
		% of Total	30,9%	22,7%	2,7%	,8%	57,0%
Total	Count	87	84	65	20	256	
	% within Cluster Number of Case	34,0%	32,8%	25,4%	7,8%	100,0%	
	% within Municipality's flexibility in investment costs	100,0%	100,0%	100,0%	100,0%	100,0%	
	% of Total	34,0%	32,8%	25,4%	7,8%	100,0%	

Table 4: Cross-tabulation results

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	90,371 ^a	3	,000
Likelihood Ratio	107,058	3	,000
Linear-by-Linear Association	83,496	1	,000
N of Valid Cases	256		

Table 5: Chi-Square test results

According to the Chi-Square test results, the answers to the three questions were different for the two clusters of municipalities, considering that the observed

significance levels were very low (close to zero). Cross tabulation shows that the frequency of the answers is very different between the two clusters and demonstrates efficient performance in financial management for the second cluster and less efficient performance for the first cluster. All the above shown that the division of the sample in two categories of groups is actually useful. In other words, there are two types of municipalities in Greece in relation to the ability to manage financial resources: efficient and inefficient (Pallis, 2011).

4.2. Identification of differences between the characteristics of the two categories

This section of analysis relates to the comparison, based on specific characteristics, between the two categories into which Greek municipalities were divided, as per the previous paragraph. These characteristics are collaboration with expert advisors and the use of modern technologies in Greek municipalities. The key objective is to identify how these two characteristics affect efficiency in managing funds, i.e. the financial performance of municipalities. In achieving the research objectives, T-Test analysis was used to compare means. Statistical analysis identifies the existence of statistically significant differences between the mean variable for two population categories. In this case, it was identified whether significant differences existed in the variables of collaboration with expert advisors and use of modern technologies between efficient and inefficient municipalities. The results of T-tests are summarised in the following tables.

Collaboration with expert advisors

Group Statistics					
Question	Cluster Number of Case	N	Mean	Std. Deviation	Std. Error Mean
How frequent do you collaborate with external advisors for problem solution?	1	108	1,66	,550	,053
	2	146	1,56	,575	,048

Table 6: Average frequency of collaboration with external advisors

Question		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
How frequent do you collaborate with	Equal variances	1,337	252	,182	,096	,072

external advisors for problem solution?	assumed					
	Equal variances not assumed	1,346	236	,180	,096	,071

Table 7: T-Test for comparison of means

It was observed that the variable means for the two categories of municipalities were not significantly different, as the means were 1.66 and 1.56 for the first and the second category, respectively. This difference is statistically insignificant as shown in the T-test results. In particular, the observed significance level of the test was 0.180 which is greater than any other used significance level (0.01 or 0.05). These results support the rejection of a hypothesis of correlation between financial management efficiency and the frequency of collaboration with external advisors. As a result, it seems that both efficient and inefficient municipalities demonstrate practically the same frequency in the use of expert advisors in decision-making. This paradox could be reasoned considering the know-how of the external advisors selected by the municipalities. In other words, it is possible that a municipality collaborates with expert advisors, but the quality of services offered - based on the results of analyses - is not satisfactory, as it fails to ultimately improve the efficiency of the municipality.

Use of modern technologies

Group Statistics					
Question	Cluster Number of Case	N	Mean	Std. Deviation	Std. Error Mean
Satisfaction from the use of modern technologies from your Municipality?	1	109	1,75	,580	,056
	2	144	1,66	,518	,043

Table 8: Means of satisfaction from the use of modern technologies

		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference

Satisfaction from the use of modern technologies from your Municipality?	Equal variances assumed	1,337	251	,182	,093	,069
	Equal variances not assumed	1,316	217,773	,189	,093	,070

Table 9: T-Test for comparison of means

The above tables clearly show that in this case also, the means of the variable that describes satisfaction from the use of modern technologies are not different for the two categories of municipalities. The mean was 1.75 for the first cluster and 1.66 for the second, while the observed significance level from the T-test was 0.182, which is greater than the standard significance levels (0.01 or 0.05). Therefore, the test results demonstrate that no statistically significant differences exist between the two categories. This means that neither the use of modern technology significantly affects financial management efficiency (Pallis, 2011).

5. Conclusions

This research attempted to divide the entire sample into categories, based on the efficiency of financial management (efficient - inefficient municipalities). There are two reasons for this analysis: first because of the interest that the in-depth observation of the current situation demonstrates relating to the abilities of municipalities in financial management, and second because of how crucial it is to look into the differences in other characteristics between efficient and inefficient municipalities. Cluster analysis was used to separate the sample in groups. Three variables were used to create the clusters in this research: a municipality's borrowing capacity, flexibility in non-investing costs, and flexibility in investing costs. These three variables were considered to be the key dimensions of efficiency in financial management; therefore, their use is illustrative of efficiency. As shown from the analysis, the municipalities were divided into two clusters, based on the three questions above. The first cluster includes 110 municipalities (Municipalities with inefficient financial management) and the second cluster includes 146 (Municipalities with efficient financial management).

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ETHICAL CONSUMERISM

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Abstract

The last three, at least, decades in most western countries has developed a dynamic civil society, dealing with conscious consumption around the world. The ever - expanding ethical consumerism theory gradually began to network the consumers around the world. The consumers became more conscious, concerning green politics and their vote empowered the green policy parties. The wide stream of ethical consumerism influenced even companies, which increasingly include terms like ‘Sustainable Development’ and ‘Corporate Social Responsibility’ to their marketing campaigns.

The South Africa boycott (1959), the “Green Consumer Guide” (1971) and the Elkington and Hailes’ international best seller “Green Consumer Guide” (1989), were the first original precursors of the global growing ‘Green Movement’. Of course, many isolated incidents of boycott preceded the official movement. The term “Ethical Consumerism” was first recorded in the 1st edition of the Ethical Consumer magazine, in March 1989.

Moreover, the Ethical Consumer Research Association (ECRA) publishes the Ethical Consumer magazine, the main research - source for the annual Ethical Consumerism Report, edited by the British Co – operative Bank (Irving et al, 2012). The current study aims to analyze consumer behavior in the context of ethical consumerism and to identify, as best as possible, the factors affecting it.

1. Defining Ethical Consumerism

In financial terms, Ethical Consumerism can be translated as the purchasing power of a rational consumer, who is able to control the elasticity of the market supply, balancing his ethical demand with the appropriate ethical supply. Although, such a definition does not include the whole aspects of this phenomena, which has many social, political, financial and environmental parameters (Barnett et al, 2005).

According to the Co-operative Ethical Consumerism Report (2007) “ethical consumerism is defined as personal allocation of funds, including consumption and investment, where choice has been informed by a particular issue – be it human rights, social justice, the environment or animal welfare”.

Ethical Consumerism is a major public issue for the UK, where it constitutes a dimension of political participation and citizenship. Many researchers argue that markets are not the only indicators of people choices for ethical consumerism. In opposite, there are many other factors that influence their behaviour. The consumers do not suddenly adjust their consumer prototype according to the changing balance point of demand and supply. In other words, the dynamic of

consumer behaviour has not to do with maths and financial regulations. The relevant background is much more complicated and psycho – politically oriented.

As it is assumed, it is quite difficult to put ethical consumerism in a conceptual framework. However, a relatively comprehensive definition considers ethical consumerism as a socio – political action which reflects people's needs, expectations, desires and satisfaction, under the current ethical commitments and moral values that each society imposes (Barnett et al, 2005).

2. Basic Consumers' Ethical Dilemmas

Consumers could be divided into two subsets, those who believe that the individual will of a person can make change and those who are skeptical about their power as a human unit. The more 'empowered' ones' approach, outlines the prototype of the ethical, or the wanna - be ethical consumer. These people are introduced as less or more aware of some crucial ethical issues, presented below (Barnet et al, 2005).

- Environmental Sustainability

Recently, many pressure – groups, environmentalists and ecologists protest against alarming environmental issues, such as climate change, the greenhouse – effect, pollution and the endangered species around the world. The truth is that great progress is made (Walker, 2009). For argument's sake, the EU, the UN and many other global organizations have been mobilized and as a result, they organized international conferences, passing relevant legislation (the 20 – 20 – 20 target) and thus they succeeded to sensitize citizens regarding the environment protection (Lois et al, 2007).

- Animal Welfare

The well – organized boycotts, in combination with governmental laws and embargos, have notably inhibited devastating phenomena like the export of living animals, the illegal whaling and trade of endangered animals and animal testing. In addition, the number of vegeterians increased a lot during the last thirty years (Irving et al, 2002).

- Child Labour and Human Rights

Child labour includes children trade and trafficking, forced or compulsory recruitment for use in armed conflicts, use, prostitution, production of pornography or pornographic performances, production and trafficking of drugs and "hazardous work", which harms health, safety or morals of children (International Labour Organization, 2008).

We live in a rapidly developing world and human rights are ostensibly protected. However, third world countries live in medieval circumstances, where the children are exploited and obliged to work hard by law. Therefore, many organizations for children's protection actively participate in the fight against child abuse (Walker, 2009).

- Fair Trade

Fair Trade is the strongest proof that consumers have become more conscientious when buying products. So, the campaigns won the bet and a new era began. The companies caught the pulse of change and incorporated this new 'trend' to their

marketing plans. The sales' numbers indicate that consumers punish the companies who don't use 'green' practices, choosing 'green' products (Irving et al, 2002).

3. Ethical Consumerism & Corporate Social Responsibility (CSR)

The modern societies evolve rapidly and require from companies, as well, to adapt to the new conditions. In other words, a business needs to operate under sustainability terms, taking into account its consumers, employees, creditors, communities, too. Briefly, CSR imposes more responsibility to the environment and people, regarding business practices (Walker, 2009).

According to the Ethical Consumerism Research (2007), 'Ethical Consumerism' is introduced as a component of Corporate Social Responsibility.

Milton Friedman (1962), for his part, to his book *Capitalism and Freedom*, said that "there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud." Consequently, it constitutes a contradiction for a company to apply CSR, because its target is the profit and CSR may mean loss. Anyone can make a socially desirable action, since it is done at their own expense. Corporate Social Responsibility practices act as a safeguard, preventing exploitation and promoting responsibility. That's why it is so difficult to be applied (Friedman, 1970).

Some companies have been accused for 'greenwashing' practices. That is to say, they hire some experts in order to disseminate fake information for a product or a service, manipulating the consumers to make the desired choices, through the influence of the 'opinion – makers' (The Ethical Consumerism Report, 2007).

4. The behaviour – attitude gap

Fair Trade and CSR are the most discussed terms in business studies. However, almost no one has been deal with the ethical dimension of the consumer behaviour. Consumers can voice their attitudes about ethical consumerism through their buying behaviour. Relevant researches in UK show that people are highly concerned of ethical issues and they actually tend to buy products with an ethical background. Although, this is not reflected on sales' numbers. On the contrary, there is a discrepancy between what consumers say and what they actually do. This phenomenon is the so – called "attitude-behaviour gap", due to barriers to ethical consumerism (Walker, 2009).

5. Which are the barriers to Ethical Consumerism?

According to the Annual Co – operative Ethical Consumerism Reports (2007), the barriers, acting as a deterrent to consumers' 'Ethical Choices', are summarized to the:

- quality and brand of products
- lack of knowledge
- lack of information
- corporate ethics ignorance

- price

The investigation of consumer psychology may shed light on this 'gap'. In other words, people feel unsafe during a survey and as a result they do not give objective answers, but those that they consider as socially acceptable (Pelsmacker et al, 2005).

Yet, Walker (2009) empirically documented that price is the most influential determinant of consumer's purchasing behaviour, versus social responsibility, which is not such a powerful factor. Thus, affordability dominates consumers' choice. Moreover, consumers despite of easily boycotting the companies that promoting unethical products, do not support the ethical ones, in practice.

6. The blueprint of buying behavior (Negativity Bias)

The empirical research of Brenton et al (2006) refers to the strong retroactive effects of positive information, via promotion and advertising, against possible future negative information. Moreover, many studies have revealed that negative information affects consumer psychology much more than positive information does (Weinberger, 1981). Specifically, Brenton et al (2006), consider negative information to be more effective, due to 'negativity bias'. Additionally, although negative information evokes unpleasant feelings to consumers, like anger and disappointment, cannot influence their real buying behavior. This is the 'behavior – attitude gap', which describes the divergence between attitudes towards consuming and the actual consuming behavior, in the marketplace. In other words, people often think ethical but they do not act ethical (Brenton et al, 2006).

7. Conclusion

An analysis of consumer behavior in the context of ethical consumerism, is attempted in this study. Eventually, ethics play an increasingly important role on people consuming decisions. According to the literature, consumers have become more conscious, challenging the current marketing strategies.

Summarizing, consumers, given their "moral restriction", consume products in order to increase their usefulness. However, contrary to economic theories, people choices usually ignore their moral restrictions, due to various factors (barriers) falling into contradiction (attitude - behavior gap).

All in all, it is evident for the consumers to prefer products ethically manufactured. That is to say, the global community has to support the companies using environmentally sustainable practices and raw materials, abide by the hygienic and safety standards, adopting fair trade. It's up to the consumers to stop the child labour or animal testing. When they choose or reject a single product, they cast a vote for the corresponding party. So, the consciousness is the only weapon against violence and exploitation.

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