

# ARCHIVES OF ECONOMIC HISTORY

Volume XXVI

No 1

January – June 2014

# ΑΡΧΕΙΟΝ ΟΙΚΟΝΟΜΙΚΗΣ ΙΣΤΟΡΙΑΣ

Τόμος XXVI

Τεύχος 1

Ιανουάριος – Ιούνιος 2014

## CONTENTS - ΠΕΡΙΕΧΟΜΕΝΑ

- G. PAPADOPOULOU – E. SAMBRACOS: Recent Evolution of Cruise Activities in European Ports of Embarkation: A Quantitative and Economic Approach ..... 7
- V. VOUDOURIS – N. GEORGIKOPOULOS: Demand Dynamics and Peer Effects in Consumption: Historic Evidence from a Non-Parametric Model ..... 27
- O. VITOULADITI: Tourism Marketing and Tourism Destination Image: An Approach to a Conceptual Framework ..... 61
- P. KYRMIZOGLOU – Y. KLETSOVA: The World Experience of Increase of Financial Literacy ..... 85
- G. KAKALETRI – D. NTOMIS – J. KATSANAKIS: Improving Employees' Behavior and Relationship Management: A Conceptual Framework ..... 97

ATHENS - ΑΘΗΝΑΙ, 2014

Το «Αρχεῖον Οικονομικῆς Ἱστορίας» δὲν φέρει ουδεμία εὐθύνη **για τὰ δημοσιευόμενα ἄρθρα**  
τὰ ὁποῖα ἐκπροσωποῦν μόνο τὶς ἀπόψεις τῶν συγγραφέων.

---

# ARCHIVES OF ECONOMIC HISTORY

---

84, Galatsiou Avenue, Athens – 111 46, Greece, tel. +30 210 2934916 / +30 6937 244739  
e-mail: akiohos@otenet.gr

## Founder

Professor Emeritus Lazaros Th. Houmanidis, University of Piraeus, Greece

## Editor-in-Chief / Director

Professor Petros Kiochos, University of Piraeus, Greece

## Co-Editor (since 2013)

Lecturer Apostolos Kiohos, University of Macedonia, Greece

## Associate Editors (since 2013)

- Assistant Professor Auke Leen, Leiden University, The Netherlands
- Professor George Vamvoukas, Athens University of Economics and Business, Greece

## Editorial board

- Professor Emeritus Lazaros Th. Houmanidis, University of Piraeus, Greece
- Professor Petros Kiochos, University of Piraeus, Greece
- Professor Emeritus Aldo Montesano, Bocconi University of Milan, Italy
- Professor Renato Coppi, University of Rome Sapienza, Italy
- Professor George Halkos, University of Thessalia, Greece
- Professor Emeritus Vincent J. Tarascio, University of North Carolina, USA
- Professor Ingrid Rima, Temple University, USA
- Professor Anna Pellanda, University of Padova, Italy
- Professor Kishor Thanawala, Temple University, USA
- Professor Spyros Makridakis, INSEAD, France
- Professor Edgar Ortiz, Universidad Nacional Autonoma de Mexico, Mexico
- Professor Petros Gemptos, Kapodistrian University of Athens, Greece
- Professor Theodore Gamaletsos, University of Piraeus, Greece
- Professor Spyridon Vliamos, Kapodistrian University of Athens, Greece
- Professor Emeritus Theodore Skountzos, University of Piraeus, Greece
- Professor Emeritus Sheila Dow, University of Stirling, England
- Professor Ulrich Witt, University of Jena, Germany
- Professor Basil Yamey, London School of Economics, England
- Professor Thierry Levy, Universite Pierre et Marie Curie, France
- Adjunct Professor Ray Petridis, University of Notre Dame, Australia
- Professor Edward Fullbrook, University of the West of England, England
- Professor Sotirios Karvounis, University of Piraeus, Greece
- Professor Epaminondas Panas, Athens University of Economics and Business, Greece
- Professor Evangelos Samprakos, University of Piraeus, Greece
- Professor Kostas Giziakis, University of Piraeus, Greece
- Professor George Vlahos, University of Piraeus, Greece
- Professor Ioannis Palaiologos, University of Piraeus, Greece
- Professor John Loizides, Athens University of Economics and Business, Greece
- Professor P.Jegadish Gandhi, Vellore Institute of Development Studies, India
- Professor Andreas Nikolopoulos, Athens University of Economics and Business
- Associate Professor Dikaïos Tserkezos, University of Crete, Greece

## Managing Editor

Professor Constantinos Zois, TEI of Piraeus, Greece

# RECENT EVOLUTION OF CRUISE ACTIVITIES IN EUROPEAN PORTS OF EMBARKATION: A QUANTITATIVE AND ECONOMIC APPROACH

G. PAPAPOULOU\* E. SAMBRACOS\*\*

## Abstract

The Caribbean, the Mediterranean, Northern Europe, Alaska, Trans-Canal, West USA, Hawaii and South America are the major cruise markets. Europe is an important destination for cruisers growing its market share on the world map. In this paper, we try to do a critical analysis of the cruise industry in order to approach the significance of the cruise sector to the European economy. More specifically, we will focus on the recent development of cruise activities in European ports of embarkation, approaching this development from a quantitative and economic perspective. We will, also, estimate the economic revenues derived from cruise passengers in the European cities of embarkation. The paper's methodology is based on theoretical and empirical data correlated with the passengers' revenues.

*JEL Classification: L83, L91, N70*

*Keywords: European cruise evolution, cruise ports of embarkation, economic impact, cruise passengers expenditures, cruise revenue*

## 1. Introduction

“Cruise tourism” is the choice of a suitable shaped ship, which can be used both as a residence and entertainment and as a means of transportation. The cruise ship offers the opportunity to a large numbers of tourists to visit major ports and discover different cultures. Cruise industry is one of the major growth areas of the international tourism (Hobson, 1993; Peisley, 1992).

The main objective of the activity of the maritime tourism is to provide the cruise tourism product. The main sectors of the cruise as a tourism chain are the transport, the tourism, the entertainment and the trip (Wild and Dearing, 2000).

Over the past two decades, the cruise line industry has become one of the fastest growing segments in the travel industry. The cruise industry has already

---

\* PhD Candidate, Dpt. of Economics, University of Piraeus, Greece, e-mail: geopap@web-mail.unipi.gr

\*\* Professor, Dpt. of Economics, University of Piraeus, Greece, e-mail: sambra@unipi.gr

developed into a mass market using large vessels in accordance with the cruise industry of the 1960's (Rodrigue and Notteboom, 2012) and has become a symbol of globalization of the tourism industry in terms of its market coverage, its practices and the mobility of its assets (Chin, 2008; Weaver, 2005; Wood, 2000).

The European cruise industry in general is quite developed, with a total operating income of over €30 billion (€2,2 billion in 2010) and approximately €4 billion (€1,4,2 billion) in direct costs, resulting from passengers and cruise companies (European Cruise Council, 2011). Specifically the Mediterranean, which along with the Caribbean comprise the two main cruise destinations with over the 60% of cruise passengers worldwide, plays an important role in the cruise industry and in this respect, Greece is placed in a developed market, facing direct competition from countries in the Eastern Mediterranean and the Black Sea.

According to the European Cruise Council (2011), during 2010 there 45 cruise lines domiciled in Europe, operating 132 cruise ships with a capacity of around 137,100 lower berths<sup>1</sup>. Another 66 vessels with a capacity of nearly 81,000 lower berths were deployed in Europe by non-European lines. Over 5 million European residents booked cruises, a 10% increase over 2009, representing nearly 30% of all cruise passengers worldwide.

More than 5 million passengers embarked on their cruises from a European port, a 7.6% increase over 2009. Of these over 4 million were European nationals and about 1 million came from outside Europe. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating about 25 million passenger visits at around 250 European port cities, a 6% increase over 2009. In addition, an estimated 13 million crew also arrived at European ports.

There were 41 cruise lines domiciled in Europe, operating 120 cruise ships with a capacity of around 143,200 lower berths. Another 76 vessels with a capacity of nearly 97,000 lower berths were deployed in Europe by 25 non-European lines. Nearly 6 million European residents booked cruises, a 9% increase over 2010, representing around 30% of all cruise passengers worldwide. An estimated 5 million passengers embarked on their cruises from a European port, a 7% increase over 2010. Of these around 5 million were European nationals and about 1 million came from outside Europe.

The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating 28.1 million passenger visits at

---

1 Used to measure the normal capacity of a ship when two beds in each cabin are occupied.

around 250 European port cities, a 10% increase over 2010. In addition, an estimated 14 million crew also arrived at European ports.

In 2012 there was an increase in the embarkation of the passengers in the European ports comparatively to the previous years. While in 2009 there were 4,8 million passengers, in 2010 the number increased to 5,2 million. In 2011 the passengers' embarkation from European ports was 5,6 million and in 2012 5,7 million passengers embarked in cruise ships from European cruise ports.

## **2. Literature Review**

This paper includes an analysis of the cruise revenue derived from passengers' expenditures in the European cities of embarkation. There are many papers focused on the cruise industry and its economic impact, but few papers analyzed the cruise passengers' expenditures. There are papers about cruise destinations (Raguž et al., 2012) and others dealing with the competitiveness of the cruise market (Ellis and Kriwoken, 2006). Rodrigue and Notteboom (2013) talked about the regional concentration of the global cruise port system and the deployment of the global cruise fleet.

Brida and Zapata (2008) and Styliadis (2012) analyzed the economic significance of cruise tourism and Bartolome et al. (2009) talked about the significance of the Western Mediterranean waters. Torbianelli (2010) and Pastena (2011) analyzed the economic growth of the Mediterranean cruise market.

Nowadays, cruising is a completely different from the original activity back at the 1970s (Bull, 1996). Cruise is an interesting case of a complex globalized industry in an environment of international competition, capital mobility and labor migration (Douglas and Douglas, 2004; Wood, 2000; Bull, 1996). The structure of the cruise market can be considered either as an oligopoly or as a monopolistic competition (Bull, 1996; Vogel, 2009). The cruise market is divided into three groups of companies: Carnival Group (43%), Royal Caribbean International (20%) and Star Cruises (8%) (Ashcroft, 2005).

According to the European Cruise Council (2010) a unique characteristic of the cruise industry is that its impacts, whether they are positive or negative, affect not only one destination but the whole cruise society. Cruise industry faces huge income flows for hosting countries yearly, of which about €14 billion have as final recipient the European economies. The effect in the development of ports are tremendous due to the high economic impact which is a result from the expenditures of cruisers and crews, the shore side staff (tour operations) the port dues and maintenance (Brida and Zapata, 2008).

The cruise industry's contribution to the national economy depends on the

level of expenditure realized by the producers and consumers of the cruise product (Wilkinson, 1999). The economic impact of cruise tourism is spread to the whole economy via an income multiplier effect (Sinclair and Stabler, 1997). In order to identify the flows of the economic impact, someone should distinguish whether the port is a homeport or a stopover port (Vina and Ford, 1998).

Dwyer and Forsyth (1998) mention that someone has to take into account whether a cruise company is of foreign interests or the activity is developed by national companies. According to Dwyer and Forsyth (1998) a major classification can be among mainland's ports and small islands. Lundberg (1990) talked about six phases of tourism development which are the rapid growth, the short-run success, the awareness of problems, the tourism recession, the difficulties and the reflection.

Dwyer et al. (2004) and Zhou et al. (1997) found that input – output analysis although it is the oldest, however, is the most widely used methodology for the systematic quantification of the relations among different industries and sectors. Briassoulis (1991) mention that the main advantage of the model is that provides a holistic picture of the economic structure of a region and it describes how industries interact with each other (Kwak et al., 2005). Policy makers can evaluate alternative policy scenarios and estimate the effects that a change in final demand can cause to general production level (Livas, 1994).

### **3. Economic Impact of the European Cruise Sector**

Cruise tourism faces several benefits to the social and economic development. This kind of tourism can benefit the national economies of the different countries involved in cruise tourism by improving foreign exchange earnings, taxes, employment, and externalities. Many papers have been reported on the economic impacts of the whole cruise industry. Some of them exemplify the economic impact for the economies of Central America and especially for the case of Puerto Rico (Seidl, et al., 2006).

The cruise sector is affected by many areas of the economy, such as the maritime and tourist agents, the port authorities, oil, towage and shipping companies and the shipbuilding in general. The effects from the cruise industry have a multiplier character. There is an interaction among the cruise industry and many parts of the whole economy. The industry interact with the wholesale and retail trade, with a number of activities such as financial and insurance, real estate, accommodation and food services, waste management and remediation activities. It is also interacts with the construction, education, agriculture, forestry and fishing,

arts and recreation, education, electricity and air-conditioning and mining. The inflows of new money can support the economy by creating new employment, increasing profits and soliciting investments (Brida and Zapata, 2008).

The cruise industry affects the economies in a positive or negative way in terms of economic, environmental and socio-cultural aspects. Positive economic effects may derive from an increase in the tax revenues from the passengers' consumption of food and services, an increase in the number of jobs in the regions where cruise is active, an increase of the citizens' salary and finally from infrastructure improvements. On the other hand, negative economic effects may derive from an increase in the prices of goods and services due to an increasing demand, unequal distribution of economic benefits to residents, revenue leakage in companies outside the area of cruise activity and seasonal income for workers.

Moreover, the cruise industry affects the economies in a direct, indirect and induced way. Direct impacts derive from suppliers' transactions with the cruise ships, their passengers and crew. The cruise ships' expenditures include port, fuel and maintenance expenditures. The passengers' expenditures include taxes, souvenirs, onshore excursions, food and beverages, transportation etc. Finally, the crew's expenditures include consumables, transportation and recreation activities.

Indirect impacts are caused by trade suppliers and the interrelation of the industries' expenditures. If a port wants to enhance its services by constructing a new dock, it will need to employ a construction company (Styliadis, 2012).

Finally, induced impacts are the result of the household spending of those who are directly or indirectly employed by the cruise industry. Cruise lines, passengers and crews are three categories of purchasers who are the main generators for the local communities.

During 2009, in Europe there were 188 cruise ships in the European waters with a capacity of nearly 203.000 lower berths. About 5 million passengers embarked from a European port to start their cruise trip. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating 24 million passenger visits at European port cities. Also, about 12 million crew arrived at European ports. Generally, in 2009 there were €14 billion spending by cruise lines, their passengers and crew, €34 billion in total output, 296,288 jobs (full time) and €9 billion in employee compensation<sup>2</sup> (European Cruise Council, 2010).

---

2 Compensation is the sum of wage and salary payments, benefits, including health and life insurance, retirement payments and any other non-cash payments; includes all income to workers paid by employers.

In 2009 the European cruise industry generated direct expenditures of about €14.1 billion. Of them, about €4.6 billion concerned spending for the construction of new cruise ships and maintenance and refurbishment of existing cruise ships. Another €5 billion concerned spending by cruise lines for goods and services in support of their cruise operations, about €3 billion concerned cruise passenger and crew spending and €1 billion in wages and salaries plus benefits. Passengers spent an average of nearly €70 in embarkation port cities (excluding airfares) and their spending at each port visit was about €60 (European Cruise Council, 2010).

During 2010, in Europe there were 198 cruise ships in the European waters with a capacity of nearly 218,000 lower berths. More than 5 million passengers embarked from a European port to start their cruise trip. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating about 25 million passenger visits at European port cities. Also, about 13 million crew arrived at European ports. Generally, in 2010 there were about €14 billion spending by cruise lines, their passengers and crew, nearly €35 billion in total output, 307,526 jobs (full time) and about €9 billion in employee compensation (European Cruise Council, 2011).

In 2010 the European cruise industry generated direct expenditures of about €14 billion. Of them, about €4 billion concerned spending for the construction of new cruise ships and maintenance and refurbishment of existing cruise ships. Another €6 billion concerned spending by cruise lines for goods and services in support of their cruise operations, about €3 billion concerned cruise passenger and crew spending and €1 billion in wages and salaries plus benefits. Passengers spent an average of nearly €70 in embarkation port cities (excluding airfares) and their spending at each port visit was about €61, while the crew spending at each port visit was about €16 per crewmember (European Cruise Council, 2011).

During 2011, in Europe there were 196 cruise ships in the European waters with a capacity of nearly 240,200 lower berths. More than 5 million passengers embarked from a European port to start their cruise trip. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating 28 million passenger visits at European port cities. Also, about 14 million crew arrived at European ports. Generally, in 2011 there were €15 billion spending by cruise lines, their passengers and crew, about €36 billion in total output, 315,500 jobs (full time) and €10 billion in employee compensation (European Cruise Council, 2012).

In 2011 the European cruise industry generated direct expenditures of about €15 billion. Of them, about €4 billion concerned spending for the construction

of new cruise ships and maintenance and refurbishment of existing cruise ships. Another € billion concerned spending by cruise lines for goods and services in support of their cruise operations, about € billion concerned cruise passenger and crew spending and €1 billion in wages and salaries plus benefits. Passengers spent an average of nearly €70 in embarkation port cities (excluding airfares) and their spending at each port visit was about €61, while the crew spending at each port visit was about €16 per crewmember (European Cruise Council, 2012).

During 2012, in Europe there were 207 cruise ships in the European waters with a capacity of nearly 249,000 lower berths. About 6 million passengers embarked from a European port to start their cruise trip. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating 29 million passenger visits at European port cities. Also, about 15 million crew arrived at European ports. Generally, in 2011 there were about €15 billion spending by cruise lines, their passengers and crew, €38 billion in total output, 326,904 jobs (full time) and €10 billion in employee compensation (Cruise Lines International Association, 2013).

In 2012 the European cruise industry generated direct expenditures of about €5 billion. Of them, about €4 billion concerned spending for the construction of new cruise ships and maintenance and refurbishment of existing cruise ships. Another €6.6 billion concerned spending by cruise lines for goods and services in support of their cruise operations, about €3.5 billion concerned cruise passenger and crew spending and €1.4 billion in wages and salaries plus benefits. Passengers spent an average of nearly €77 in embarkation port cities (excluding airfares) and their spending at each port visit was about €62, while the crew spending at each port visit was about €21 per crewmember (Cruise Lines International Association, 2013).

Europe faces an increase in its total economic growth through the years 2009-2012 (table 1). In 2012, the direct expenditures were €5.5 billion comparatively to the €4.1 billion in 2009 and the same happens with the direct compensation with an increase of 9.3% from 2009 to 2012. The total European economic benefit from the cruise activity in 2012 amounts to €38 billion, an increase of about 11% from 2009 where the total economic benefit was about €34 billion. As a result, the total jobs have increased significantly (326,904 in 2012 comparatively to 296,288 in 2009).

**Table 1: Total Economic Impact of the European Cruise Sector**

	2009 (€billion)	2010 (€billion)	2011 (€billion)	2012 (€billion)	Change 2012 vs 2009
Direct Expenditures	14.1	14.5	15.0	15.5	+9.9%
Direct Compensation	4.3	4.4	4.6	4.7	+9,3%
Total Compensation	9	9.3	9.8	10	+11,1%
Total Economic benefit	34.1	35.2	36.7	37.9	+11,1%
No. of direct jobs	143,233	150,401	153,012	158,654	+10,7%
Total jobs	296,288	307,506	315,500	326,904	+10,3%

Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

The cruise industry expenditures in Europe are as follows (graph 1 a, b). Cruise line purchases play the leading role in the industry's expenditures following by the value of shipbuilding. The passenger and crew expenditures come third and the cruise employees' compensation is following.

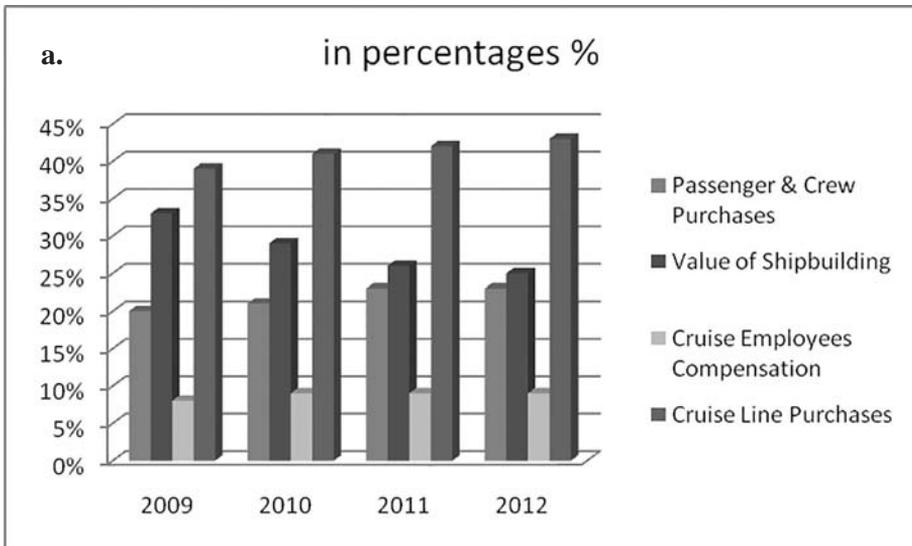
Passengers and crew spent €2.9 billion in 2009, €3.1 billion in 2010, €3.44 billion in 2011 and €3.63 billion in 2012 at ports of embarkation and ports of call (transit ports).

The global cruise industry spent €4.60 billion in 2009, €4.20 billion in 2010, €3.84 billion in 2011 and €3.85 billion in 2012 for building and construction of cruise ships. There is a decrease in the value of shipbuilding from 2009, whereas expenditures for new construction and maintenance remained unchanged from 2011 (+0.3%). Expenditures for new constructions declined in France and Italy during 2012 (32% and 12% respectively) and an increase is noticed in Germany and Finland (18% and 37% respectively).

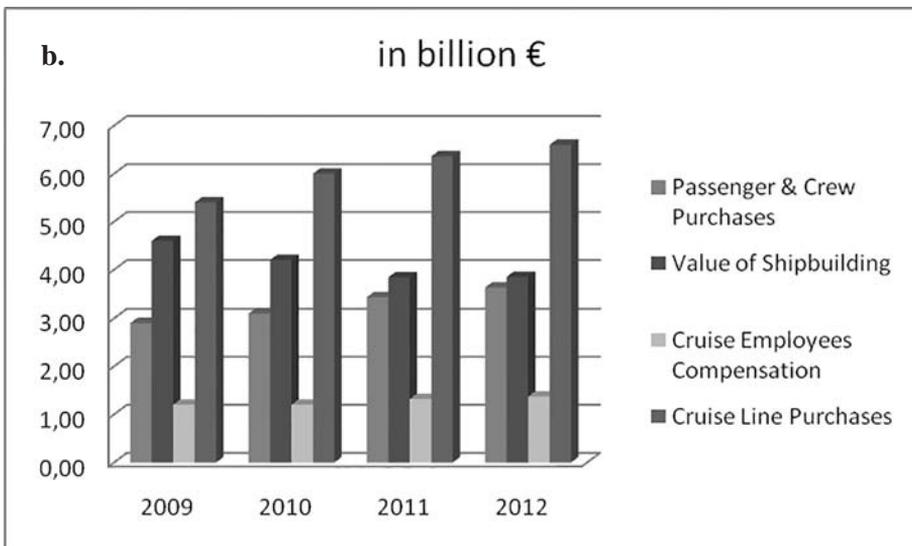
Cruise lines in Europe spent €1.2 billion in 2009 and in 2010, €1.32 billion in 2011 and €1.37 billion in 2012 on compensation for employees who resided in Europe. The cruise lines employed about 51.000 European residents in 2009 in their administrative offices and as crew on board, 55.000 in 2010, 57.000 in 2011 and 60.600 in 2012, an increase of 18.8% from 2009 to 2012.

Cruise lines spent €5.40 billion in 2009, €6 billion in 2010, €6.36 billion in 2011 and €6.6 billion in 2012. These purchases included products and services. Food and beverage manufacturers produce €24 million in provisions

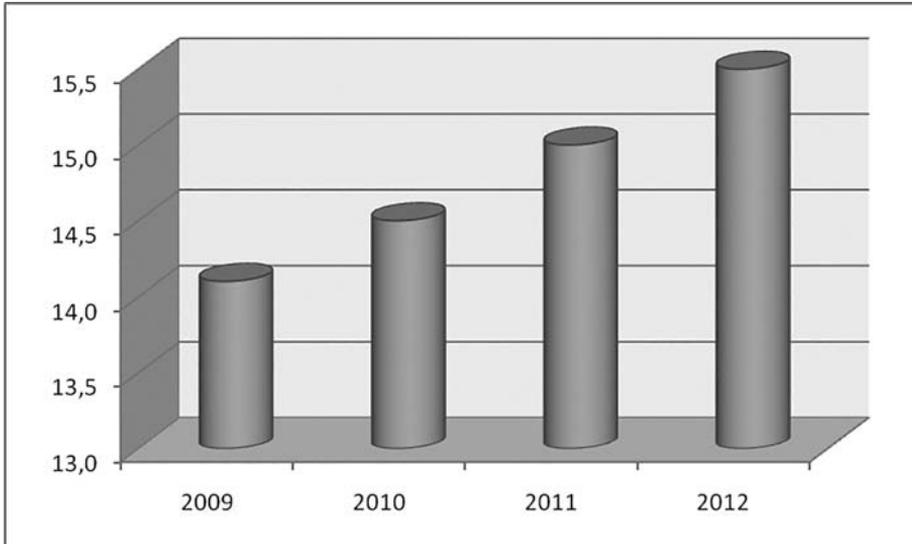
**Graph 1: Direct Cruise Industry Expenditures in Europe by sector (in percentages and in billions)**



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

**Graph 2: Direct Cruise Industry Expenditures in Europe (in billion €)**

Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

that consumed on cruise ships by passengers and crew. The manufacture of metals and machinery spent another €840 million and this includes material handling equipment, engines, lighting equipment, communication equipment and computers. Finally, the cruise industry spent about €1.28 billion on financial and business services including advertising, engineering and other professional services, computer programming and support services and direct mail and market research.

In general, the total direct cruise industry expenditures in Europe go up to €14.1 billion in 2009, €14.5 billion in 2010, €15 billion in 2011 and €15.5 billion in 2012 (Graph 2). The European cruise industry faced an increase from 2009 to 2012 of about 10% in terms of direct expenditures.

#### **4. Cruise Passengers' embarkation in the major European ports**

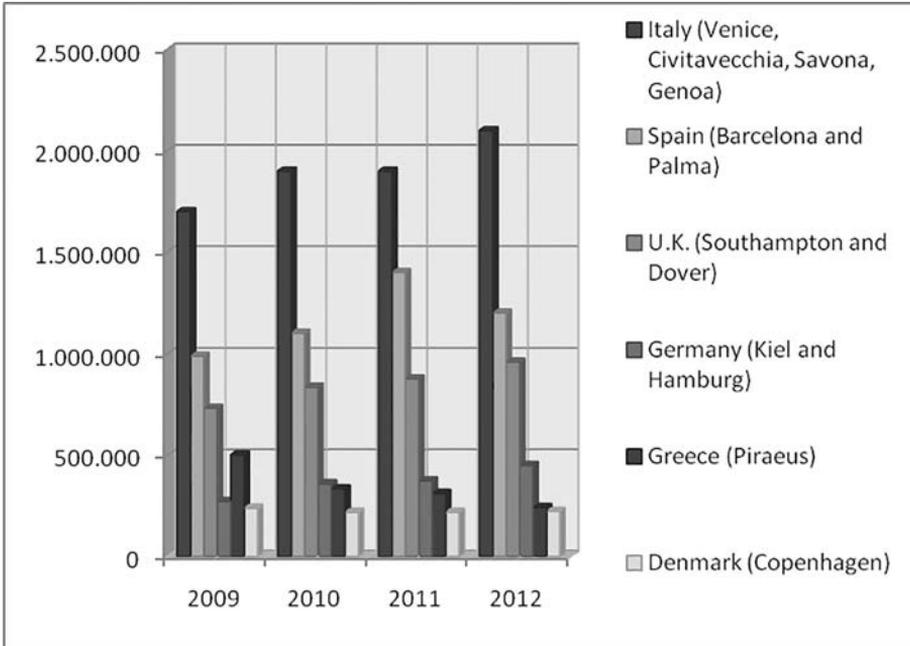
According to the economic report of the European Cruise Council (2010), in 2009 over 4.8 million cruise passengers embarked on their cruises from European port. The leader markets were Italian ports (Venice, Savona, Genoa

and Civitavecchia) with 1.7 million passenger embarkations. Second place belongs to Spain with over 990,000 embarkations with Barcelona and Palma being Spain's major embarkation ports. The United Kingdom comes after Spain with 733,000 embarkations with Southampton and Dover as the principal embarkation ports. Finally, the next three most important embarkation countries were Greece with the port of Piraeus as the leading port, Germany and the ports of Hamburg and Kiel and Denmark with the port of Copenhagen as the leading port. The Greek ports generated 503,000 embarkations, Germany 273,000 and Denmark 240,000.

In 2010 5.3 million cruise passengers embarked on their cruises from European port. The leader markets were Italian ports (Venice, Savona, Genoa and Civitavecchia) with 1.9 million passenger embarkations. Second place belongs to Spain with over 1.1 million passenger embarkations with Barcelona and Palma being Spain's major embarkation ports. The United Kingdom comes after Spain with 837,000 embarkations with Southampton and Dover as the principal embarkation ports. Finally, the next three most important embarkation countries were Germany and the ports of Hamburg and Kiel, Greece with the port of Piraeus as the leading port, and Denmark with the port of Copenhagen as the leading port, too. Germany generated 361,000 embarkations, Greek ports generated 336,000 embarkations and Denmark 220,000 (European Cruise Council, 2011).

In 2011 nearly 5.6 million cruise passengers embarked on their cruises from European port. The leader markets were Italian ports (Venice, Savona, Genoa and Civitavecchia) with 1.9 million passenger embarkations. Second place belongs to Spain with 1.4 million passenger embarkations with Barcelona and Palma being Spain's major embarkation ports. The United Kingdom comes after Spain with 878,000 embarkations with Southampton and Dover as the principal embarkation ports. Finally, the next three most important embarkation countries were Germany and the ports of Kiel and Hamburg, Greece with the port of Piraeus as the leading port, and Denmark with the port of Copenhagen as the leading port, too. Germany generated 375,000 embarkations, Greek ports generated 313,000 embarkations and Denmark 220,000 (European Cruise Council, 2011).

In 2012 nearly 5.77 million cruise passengers embarked on their cruises from European port. The leader markets were Italian ports (Venice, Civitavecchia, Savona and Genoa) with 2.1 million passenger embarkations. Second place belongs to Spain with 1.2 million passenger embarkations with Barcelona and Palma being Spain's major embarkation ports. The United Kingdom comes after Spain with 962,000 embarkations with Southampton and Dover as

**Graph 3: Passengers' embarkation at major European cities-ports**

Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

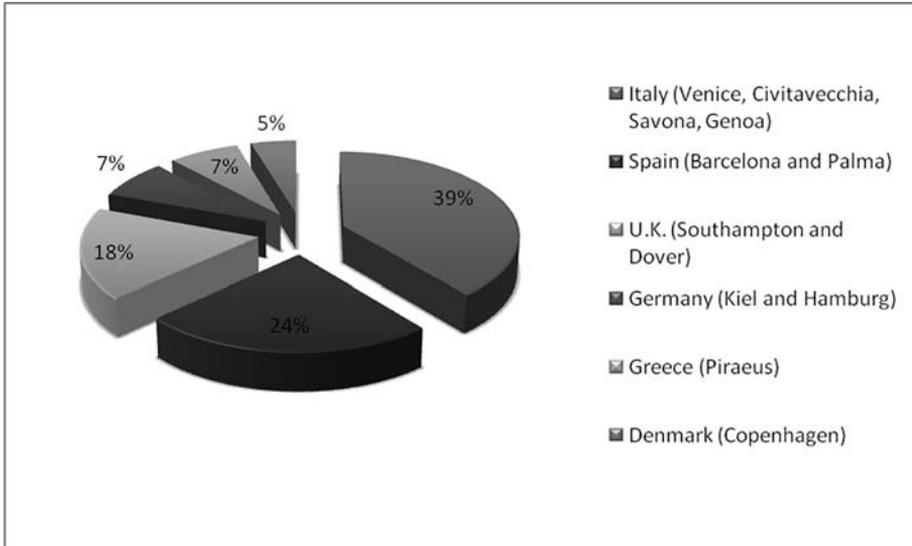
the principal embarkation ports. Finally, the next three most important embarkation countries were Germany and the ports of Kiel and Hamburg, Greece with the port of Piraeus as the leading port, and Denmark with the port of Copenhagen as the leading port, too. Germany generated 451,000 embarkations, Greek ports generated 244,000 embarkations and Denmark 224,000 (Cruise Lines International Association, 2013) (graph 3).

The total passengers' embarkation at the major European ports from 2009-2012 is illustrated in the next graph (graph 4).

## 5. Direct revenue in the European cities of embarkation through passengers' expenditures

There are different techniques someone can use in order to calculate the economic impacts. One of them is the multiplier analysis including the input-output analysis, the "economic base" method and the Keynes multiplier.

**Graph 4: Total passengers' embarkation at major European cities-ports, 2009-2012**



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

Furthermore, other techniques refer to integrated models, which include the input-output analysis and other econometric techniques. Finally, we can calculate the economic impacts through the “Computable General Equilibrium (CGE) modeling” which illustrates the reaction of the economic changes in external shock.

In order to find the direct revenue from the passengers' expenditures we can calculate them as follows:

$$R_d = N_p * AE,$$

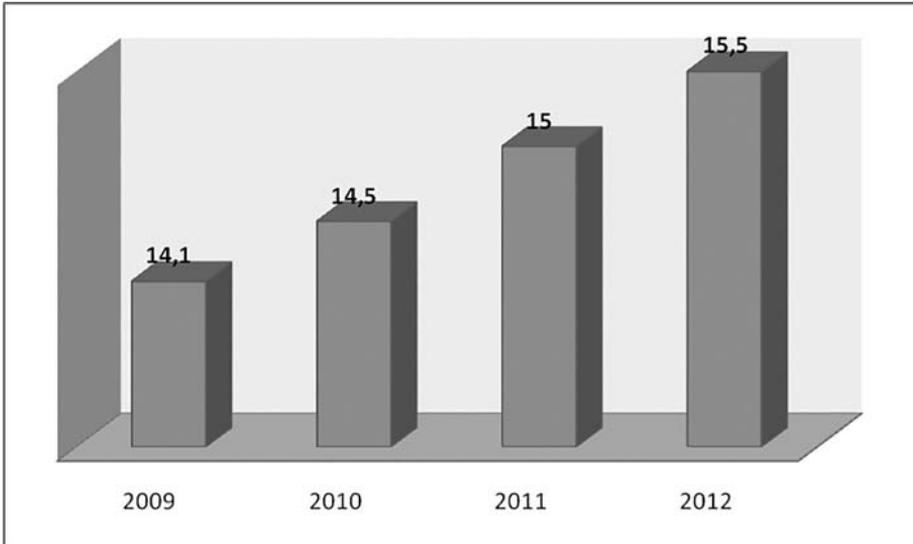
Where:

$R_d$  is the direct revenue;

$N_p$  is the number of passengers and

$AE$  is the average expenditure

In 2009 the European cruise industry generated direct expenditures of about

**Graph 5: Direct Expenditures (in € billion)**

Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

€4.1 billion, in 2010 about €4.5 billion, in 2011 an amount of about €5 billion and in 2012 the European cruise industry generated direct expenditures of about €5.5 billion (graph 5).

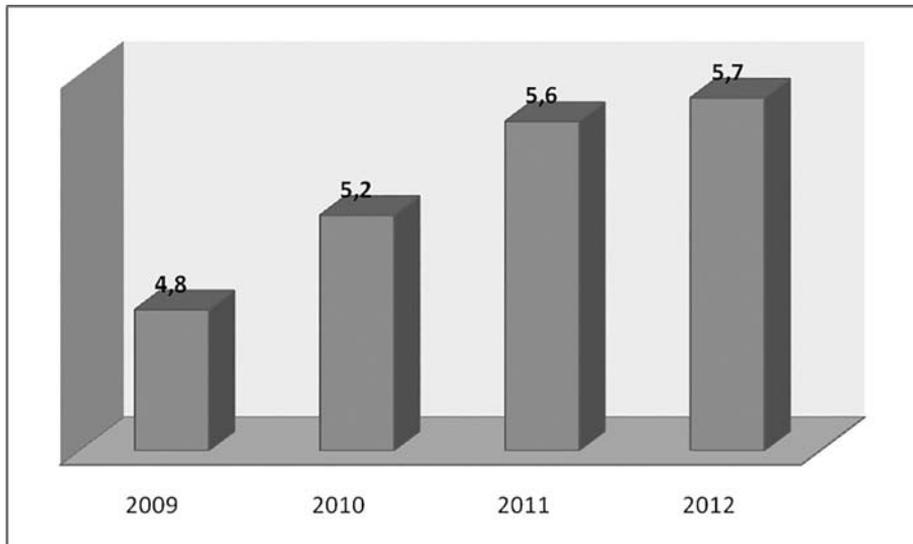
In 2009, about 4.8 million passengers embarked from a European port to start their cruise trip. Passengers spent an average of nearly €70 in embarkation port cities. In 2010, about 5.2 million passengers embarked from a European port and the passengers spent an average of nearly €70 in embarkation port cities. In 2011, about 5.6 million passengers embarked from a European port to start their cruise trip. Passengers spent an average of nearly €74 in embarkation port cities. Finally, in 2012 about 5.7 million passengers embarked from a European port and the passengers spent an average of nearly €77 in embarkation port cities (table 2).

**Table 2: Passengers' embarkation and average spending**

	2009	2010	2011	2012
Passengers' embarkation from a European port (million)	4.8	5.2	5.6	5.7
Passengers' average spending at embarkation port cities (€/per person)	70	70	74	77

Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

The following graph represents the increase in the number of passengers' embarkation from European ports from 2009 to 2012 (graph 6).

**Graph 6: No. of passenger's embarkation from European ports (in millions)**

Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

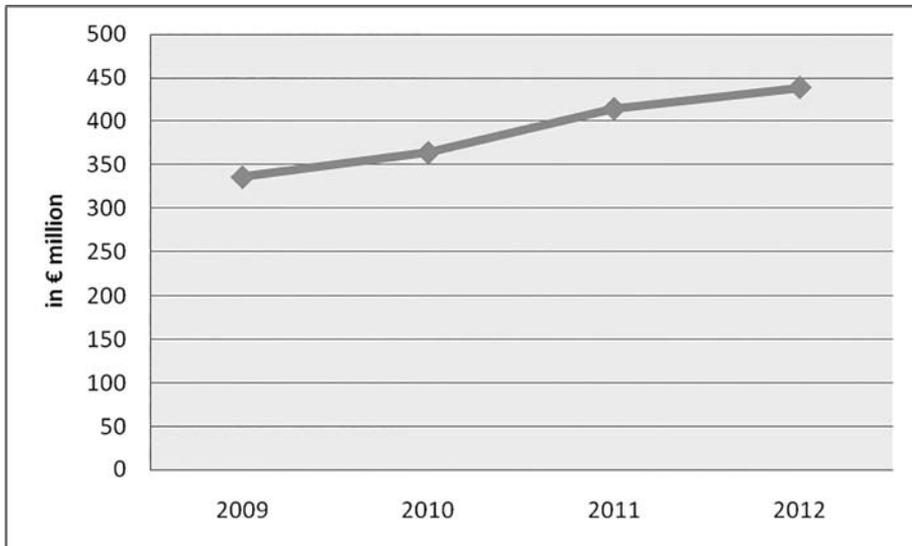
Following the above equation, we found that the total direct revenue in ports of embarkation through the passengers' expenditures was €336 million in 2009, €364 million in 2010, €414.4 million in 2011, €438.9 million in 2012 and the total direct revenue from 2009 – 2012 amounted to €1.55 billion (table 3; graph 7).

**Table 3: Direct Revenue in embarkation cities from passengers**

	2009	2010	2011	2012	Total Direct Revenue 2009-2012
Np (million)	4.8	5.2	5.6	5.7	
AE (in €)	70	70	74	77	
Rd (€million)	336	364	414.4	438.9	€1.55 billion

Source: Authors

**Graph 7: Direct Revenue in embarkation cities from passengers**



Source: Authors (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

## **6. Conclusions**

This paper develops a framework in which the European Cruise Industry is analyzed. This framework applied mostly to the European Cruise Market and the significance and impacts of the cruise industry. The purpose of this paper is to calculate the direct economic impacts through the passengers' expenditures in the European ports of embarkation. The cruise sector of Europe is examined, in terms of direct economic revenue and passengers' expenditures.

From our analysis of the economic impacts it was found that there was an increase of the total economic benefits in 2012 comparatively to 2009 by 11,1%. The direct expenditures have also increased through the examining years and the same happened with the total jobs in the European cruise sector (from 296,288 in 2009 to 326,904 in 2012). Cruise line purchases play the leading role in the industry's expenditures following by the value of shipbuilding. The passenger and crew expenditures come third and the cruise employees' compensation is following.

Among the different European cruise destinations, Italy is the leader market owning the 39% of the total passengers' embarkation and Spain is following with 24%. The U.K. comes in the third place with 18% of the total embarkations, following by Germany and Greece (7% both) and Denmark (5%).

During our analysis of the direct passengers' expenditures in the European cities of embarkation, we found that in 2009 the direct revenue in embarkation cities was €336 million and in 2010 was €364 million. In 2011 the direct revenue increased up to €414.4 million and in 2012 the European cities of embarkation faced total direct revenue of €438.9 million. The total direct revenue generated from passengers' expenditures from 2009 to 2012 was €1.55 billion. The increase of the direct revenue in embarkation cities was about 8.3% in 2010 comparatively to 2009. In 2011 there was an increase in terms of direct revenue of nearly 13.8% comparatively to the previous year. Accordingly, in 2012 we can observe an increase in direct revenues of about 5.9% compared to 2011. Generally, from 2009 to 2012 we found a total increase of direct revenue in the European cities of embarkation of nearly 30.6%. This increasing number shows that more and more cruise passengers from all over the world choose European countries as a cruise destination.

The cruise industry plays a very important role for the economies of the European countries. It increases its total European revenue and its economic and social impact and contribution by sustaining jobs in European shipyards, creating employment in European ports and acting as a catalyst for European tourism. Due to this economic growth that we described, European countries

that involve with the cruise industry have to continue focusing on this particular field of tourism and invest much more money to this crucial economic sector.

## References

- Ashcroft, C. (2005). *Overview of the global cruise industry*, in *European Cruise Council* (eds). The ECC 2004/2005 annual review, Ashcroft & Associates Ltd., UK.
- Bartolome, A., McAleer, M., Ramos, V. and Rey-Maqueira, J. (2009). *Cruising is risky business*, CIRJE Discussion paper. [<http://www.cirje.e.u-tokyo.ac.jp/research/dp/2009/2009cf664.pdf>], (Site accessed 15 April 2014).
- Briassoulis, H. (1991). Methodological issues. Tourism input–output analysis, *Annals of Tourism Research*, Vol. 18, pp. 485-495.
- Brida, J. and Zapata, S. (2008). *The Impacts of the Cruise Industry on Tourism Destinations*, University of Bolzano, Monza, Italy.
- Bull, O. A. (1996). The economics of cruising: An application to the short ocean cruise market, *The Journal of Tourism Studies*, Vol. 7, No. 2, pp. 28-35.
- Chin, C. B. N. (2008). *Cruising in the global economy: Profits, pleasure and work at sea*, Aldershot, Ashgate, England.
- Cruise Lines International Association (CLIA) (2013). *The Cruise Industry. Contribution of Cruise Tourism to the Economies of Europe*.
- Douglas, N. and Douglas, N. (2004). Cruise ship passenger spending patterns in Pacific island ports, *International Journal of Tourism Research*, Vol. 6, pp. 251-261.
- Dwyer, L and Forsyth, P. (1998). Economic Significance of Cruise Tourism, *Annals of Tourism Research*, Vol. 25, No. 2, pp. 393-415.
- Dwyer, L., Forsyth, P. and Spurr, R. (2004). Evaluating tourism's effects: New and old approaches, *Tourism Management*, Vol. 25, pp. 307-317.
- Ellis, C. and Kriwoken, L. K. (2006). Off the beaten track: A case study of expedition cruise ships in south-west Tasmania, Australia, in Dowling, R. K., (eds), *Cruise Ship Tourism*, pp. 251-258, CABI, Oxfordshire.
- European Cruise Council (ECC). (2010). *Contribution of Cruise Tourism to the Economies of Europe*.
- European Cruise Council (ECC). (2011). *The Cruise Industry: A Leader in Europe's Economic Recovery*.

- European Cruise Council (ECC). (2012). *Cruise Industry: Contribution of Cruise Tourism to the Economies of Europe*.
- Hobson, J. S. P. (1993). Analysis of the US Cruise Line Industry, *Tourism Management*, Vol. 13, pp. 453-462.
- Kwak, S. J., Yoo, S. H. and Chang, J. I. (2005). The role of the maritime industry in the Korean national economy: An input–output analysis, *Marine Policy*, Vol. 29, pp. 371-383.
- Livas, P. C. (1994). *Input output analysis*, Stamoulis, Piraeus (in Greek).
- Lundberg, D. E. (1990). *The tourist business*, 6th ed., Van Nostrand-Reinhold, New York.
- Pastena, L. (2011). *Modernizing the Med*, World Cruise Industry Review, Valletta, Malta.
- Peisley, T. (1992). *World Cruise Ship Industry in the 1990's*, Economist Intelligence Unit, London.
- Raguž, I. V., Perucic, D. and Pavlic, I. (2012). Organization and Implementation of Integrated Management System Processes - Cruise Port Dubrovnik, *International Review of Management and Marketing*, Vol. 2, No. 4, pp. 199-209.
- Rodrigue, J.P. and Notteboom, T. (2012). The geography of cruises: Itineraries, not destinations, *Applied Geography*, Vol. 38, pp. 31-42.
- Seidl, A., Guiliano, F. and Pratt, L. (2006). Cruise Tourism and Economic Development in Central America and the Caribbean: The case of Costa Rica, *Revista de Turismo y Patrimonio Cultural*, Vol. 4, No. 2, pp. 213-224.
- Sinclair, T. M. and Stabler, M. (1997). *The economics of tourism*, Routledge, New York.
- Styliadis, T. (2012). *Greek Sea is not in Crisis. An institutional approach of the economic impact cruise ships have on local societies: the case of two Ionian Islands*, Master Thesis, Erasmus University, Rotterdam.
- Torbianelli, J. (2010). *Mediterranean Cruises as Drivers of Investment and Relations between Ports and Cities*, University of Trieste, Trieste.
- Vaggelas, G. (2011). *Cruise Tourism: Economic Benefits, Sustainable Development and Port City*, Plan Bleu Regional Seminar – Tourism and sustainable development in the Mediterranean, Genoa, Italy.
- Vina, L. and Ford, J. (1998). Economic impact of proposed cruise ship business, *Annals of Tourism Research*, Vol. 25, pp. 205-221.
- Vogel, M. (2009). *Onboard revenue: The secret of the cruise industry's success?*, in Papathanassis, A. (eds), *Cruise sector growth: Managing*

emerging markets, human resources, processes and systems, pp. 3-15, Gabler, Wiesbaden.

Weaver, A. (2005). The McDonaldization thesis and cruise shipping, *Annals of Tourism Research*, Vol. 32, No. 2, pp. 346-366.

Wild, P. and Dearing, J. (2000). Development of and prospects for cruising in Europe, *Maritime Policy and Management*, Vol. 27, No. 4, pp. 315-337.

Wilkinson, P. (1999). Caribbean cruise tourism: Delusion? Illusion?, *Tourism Geographies*, Vol. 1, pp. 261-282.

Wood, R. E. (2000). Caribbean cruise tourism: globalization at sea, *Annals of Tourism Research*, Vol. 27, No. 2, pp. 345-370.

Zhou, D., Yanagida, F., Chakravorty, U. and Leung, P. (1997). Estimating the economic impacts from tourism, *Annals of Tourism Research*, Vol. 24, No. 1, pp. 76-89.

# DEMAND DYNAMICS AND PEER EFFECTS IN CONSUMPTION: HISTORIC EVIDENCE FROM A NON-PARAMETRIC MODEL

NIKOLAOS I. GEORGIKOPOULOS\*  
VLASIOS VOUDOURIS\*\*

## Abstract

The aim of this paper is to establish probabilistic statements of how the post-opening consumption decisions of individuals depend on information they receive from their peers during the opening week by using box-office data for movies released in the US market in the 1990s and 1930s. In doing so, we quantify how the post-opening demand dynamics depend on the opening power that the market at these instances dictate by proposing a smooth and non-parametric model. An understanding of the demand dynamics and adaptive supply arrangements of the motion picture industry is presented. The movie market is particularly interesting due to its skewed and kurtotic macro-regularity, which resulted in the hypothesis, that ‘nobody knows what makes a hit or when it will happen’. This hypothesis is revised here. Finally, we also find evidence of strong interaction among consumers, as one would expect information to spread, because of the multiplicative error properties of the proposed semi-parametric model. This implies the existence of a ‘social multiplier’ when quality is ex-ante uncertain.

*JEL Classification: B23, B40, C46, C14.*

*Keywords: Box-office revenues, non-parametric model, the Box-Cox Power Exponential distribution, Generalised Additive Models for Location Scale and Shape (GAMLSS), demand dynamics.*

## 1. Introduction

The market for films in theatrical release is an experimental place in which consumers quest for aesthetic novelty but ex-ante are uncertain about the quality of the films they select to watch. For their part producers are uncertain about how best to satisfy the not perfectly understood preferences of consumers, while the task of the other two agencies in the supply triumvirate

---

\* Research Associate, KEPE. Visiting Research Professor, Stern Business School, NYU. KEPE, 11 Amerikis Str., Athens, Greece, e-mail: nikolaos@kepe.gr.

\*\* Affiliate Professor, ESCP Europe Business School, 527 Finchley Road, London, NW3 7BG. e-mail: vvoudouris@escpeurope.eu.

- distributors and exhibitors - is to satiate demand once revealed, making films that consumers wish to see much less scarce than those films to which they are not so attracted. This is an industry that supply adapts to demand dynamics by means of adaptive contracts (e.g., film rental differentials and booking periods).

Here, attention is focused on examining individual decision-making and social interaction using a unique feature of the movie industry: The opening box-office revenues reveals an informational signal given the inflexible admission prices of the industry. Bikhchandri et al. (1992, 1998) and Banerjee (1992) suggests that when many consumers simultaneously face the same uncertain decision involving a common set of choices, a social dimension to individual behaviour can be detected – this is commonly labelled as social learning. The dynamics of the social learning are quantified here by developing a smooth and non-parametric model, using the Box-Cox Power Exponential (BCPE) distribution developed in Rigby and Stasinopoulos (2004), of post-opening box-office revenues (cumulative box-office minus opening box-office revenues) based upon the opening box-office revenues. Therefore, methodologically, the work presented here is consistent with the work of Haavelmo (1943, 1944) and Mandelbrot (1963) in the sense of a probabilistic formulation of economic theory using, in this instance, the recently introduced GAMLSS (Generalised Additive Models for Location Scale and Shape) framework developed in Rigby and Stasinopoulos (2005). This is to say that we paid attention to the formulation of economic theory by introducing the stochastic properties of the BCPE distribution to account for the ‘unexplained rest’: i) the very nature of consumer behavior and ii) a vast range of factors that affect social learning.

We find the film industry an ideal environment in which to identify and measure the extent to which social learning takes place. It is an environment in which new differentiated products that consumers have no direct experience of are constantly released into the market and then, for the most part, very shortly removed from it. This rapid life and death process gives consumers little time in which to decide in favour of watching particular films before they are gone. De Vany and Walls (2004) found that social learning took a number of weeks (four to five weeks) to determine the probable course of film revenues, thus identifying consumer behaviour as social learning rather than mere herding. Here we have found evidence to suggest that consumers learn even quicker than this for certain ‘groups’ of films, namely strong-opening and poor-opening films. This reflects that early market shares (opening box-office revenues) can determine which movies prevail, meaning that the movie market-share dynamics are non-ergodic - the motion picture industry tends in probability

to a limiting form that is not independent of the initial conditions (see Arthur, 1988, for a discussion on ‘path dependence’ and ‘lock-in’). This seems never to have been noticed and is given here for the first time.

Therefore, supply arrangements can be geared to adapt successfully to the opportunities as revealed by the opening box-office revenues, which are viewed as approximations to the discovery of consumer preferences and the transmission of information. In fact, the existence of probabilistic statements for the motion picture industry contradicts findings in the literature as exemplified by the ‘infinite variance’ claim (e.g., De Vany and Walls 1996, 2004a, Walls 1997, 2005). The implication of the results presented here can be understood within the ‘adaptive contracting’ (film rentals and booking periods) and ‘decentralised decision-making’ nature of the industry (see De Vany and Eckert, 1991, and Hanssen, 2000).

In section 2, a discussion is conducted of some of the more important mathematical properties of the BCPE distribution within the GAMLSS framework. Section 3 begins with an account of the empirical revenue data of the 1990s, which is followed by an assessment of how the proposed GAMLSS-based econometric model depicts the demand dynamics and peer effects in consumption of the motion picture industry. Section 4 presents how the flexibility of the model also captures the demand dynamics of the box-office revenues in the 1930s. Section 5 presents a discussion of the results and provides some explanations of the different demand and supply dynamics of the industry. Section 6 presents a summary of the results together with our conclusion that in finding that the proposed model fits two datasets representing different time periods and institutional arrangements, we make a contribution to the knowledge of this industry. Furthermore, at a more general level, the paper makes a methodological contribution in analysing the demand dynamics and peer effects in consumption of infrequently consumed experienced goods (as exemplified by the motion picture industry) and demonstrates the utility of the GAMLSS framework in developing appropriate probability laws for the economic phenomena under investigation.

## **2. The GAMLSS-based econometric model**

In this study, we adopt a generalized additive model to allow for the dynamics of the box-office revenues with the opening box-office revenues as the explanatory variable. Unlike most modelling techniques that have been proposed in the past, the proposed econometric model is selected from a rich list of distributions and each of the parameters of the distributions is modeled as

a non-parametric function of the opening box-office revenues. Thus, the proposed econometric model generally has two distinct parts:

- The probability distribution of the response variable  $Y$
- The regression models of the  $\mu$ ,  $\sigma$ ,  $v$  and  $\tau$  parameters of the selected probability distribution

The general form of the GAMLSS-based econometric model, which was developed using the R-based GAMLSS framework, for each of the four parameters of the BCPE distribution, is as follows:

$$\begin{aligned}
 g_1(\mu_i) &= h_1(x_i) \\
 g_2(\sigma_i) &= h_2(x_i) \\
 g_3(v_i) &= h_3(x_i) \\
 g_4(\tau_i) &= h_4(x_i)
 \end{aligned}
 \tag{1}$$

where the  $g_k()$ , for  $k = 1, 2, 3, 4$  are known link functions relating the distribution parameters ( $\mu$ ,  $\sigma$ ,  $v$ ,  $\tau$ ) to  $x$ , the logarithm of the opening box-office revenues,<sup>1</sup> through the non-parametric smoothing functions  $h_k$  for  $k = 1, 2, 3, 4$ . In this paper we used penalised beta spline functions  $h_k$  of the 'log opening box-office revenues' predictor  $X$  evaluated at  $x_i$ .

In particular, the GAMLSS-based econometric model,  $M = \{D, G, T, \Lambda\}$ , represents the following components:

1.  $D$  specifies the distribution (here BCPE) of the logarithm of post-opening box-office revenues (response variable),  $\log(y)$ ,

2.  $G$  specifies the set link functions  $\{g_1(\mu) = \mu, g_2(\sigma) = \log(\sigma), g_3(v) = v, g_4(\tau) = \log(\tau)\}$ ,

3.  $T$  specifies the predictor terms  $\{\eta_1 = h_1(x), \eta_2 = h_2(x), \eta_3 = h_3(x), \eta_4 = h_4(x)\}$  being the predictors based on the opening-box-office revenues, where  $x = \log(\text{OB})$  and  $\text{OB}$  is the opening-box-office revenue,

4.  $\Lambda$  specifies the smoothing hyper-parameters  $\{\lambda_1, \lambda_2, \lambda_3, \lambda_4\}$ .

---

1 The logarithmic representation is used here because it gives a rough estimate of the order of magnitude of box-office revenues, meaning that because the box-office revenues rescale, rather than focusing on the size of the box-office revenues, we can more easily compare them. Thus, the logarithmic model is advantageous for the type of analysis that we do.

The hyper-parameters  $\{\lambda_1, \lambda_2, \lambda_3, \lambda_4\}$  specify the amount of smoothing used in each of the smooth function  $\{h_1(x), h_2(x), h_3(x), h_4(x)\}$ . The  $h_k$ 's are estimated using the function `pb()` in the R-based GAMLSS package. The smoothing function `pb()` uses a P-spline smoother (Eilers and Marx, 1996) represented as a random effects model which is fitted locally by maximum likelihood estimation to provide estimates of the corresponding smoothing hyper-parameter (see Lee et al, 2006, p273-279). This automatic estimation of the hyper-parameter was also rechecked using the function `find.hyper()`, which selects values of hyper-parameters which minimise a generalized Akaike information criterion (GAIC), Akaike (1983), with penalty  $k = 3$ .

The Box-Cox power Exponential distribution,  $BCPE(\mu, \sigma, \nu, \tau)$  provides a model for the response variable  $Y$  exhibiting both skewness and kurtosis (leptokurtosis or platykurtosis).

The  $BCPE(\mu, \sigma, \nu, \tau)$  distribution is specified for positive random variable  $Y$  through the transformed random variable  $Z$  given by

$$Z = \begin{cases} \frac{1}{\sigma\nu} \left[ \left( \frac{Y}{\mu} \right)^\nu - 1 \right], & \text{if } \nu \neq 0 \\ \frac{1}{\sigma} \log \left( \frac{Y}{\mu} \right), & \text{if } \nu = 0 \end{cases} \quad (2)$$

for  $0 < Y < \infty$  where  $\mu > 0$ ,  $\sigma > 0$  and  $-\infty < \nu < \infty$ , and where the random variable  $Z$  is assumed to follow a standard power exponential distribution with power parameter,  $\tau > 0$ , treated as a continuous parameter. [The parameterization (2) was used by Cole and Green (1992), who assumed a standard normal distribution for  $Z$ ].

The probability density function of  $Z$ , a standard power exponential variable, is given by

$$f_Z(z) = \frac{\tau}{c2^{(1+\frac{1}{\tau})}\Gamma(\frac{1}{\tau})} \exp\left\{-0.5 \left| \frac{z}{c} \right|^\tau\right\} \quad (3)$$

for  $-\infty < z < \infty$  and  $\tau > 0$ , where  $c^2 = 2^{-2/\tau}\Gamma(1/\tau)[\Gamma(3/\tau)]^{-1}$ . This parameterization, used by Nelson [27], ensures that  $Z$  has mean 0 and standard deviation

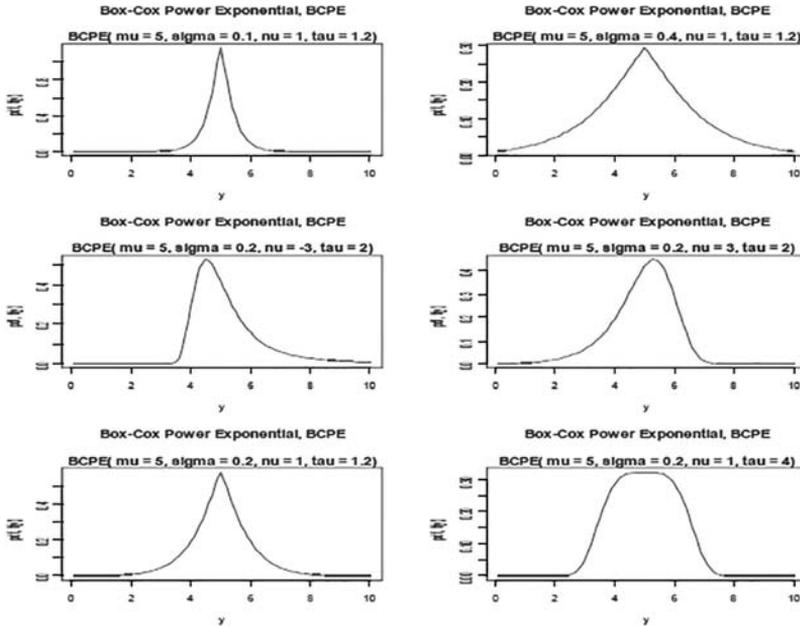
1 for all  $\tau > 0$ . Note that  $\tau = 1$  and  $\tau = 2$  correspond to the Laplace (i.e. two sided exponential) and normal distributions respectively, while the uniform distribution is the limiting distribution as  $\tau \rightarrow \infty$ . [Strictly, the exact distribution of  $Z$  in (2) is a truncated standard power exponential distribution (see Rigby and Stasinopoulos (2004) Appendices A and B for details). From (2) the probability density function (pdf) of  $Y$  is given by

$$f_Y(y) = f_Z(z) \left| \frac{dz}{dy} \right| = \frac{y^{\nu-1}}{\mu^\nu \sigma} f_Z(z) \quad (4)$$

for  $y > 0$ . The parameters,  $\mu$ ,  $\sigma$ ,  $\nu$  and  $\tau$ , may be interpreted as relating to location (median), scale (approximate coefficient of variation), skewness (transformation to symmetry) and kurtosis (power exponential parameter) respectively. Because the  $\sigma$ ,  $\nu$  and  $\tau$  distribution parameters are interpretable in an economically meaningful way for the motion picture industry as discussed above (see also section 5), Figure 1 shows how their values affect the curve of the BCPE distribution. Note that although the  $\mu$  can be interpreted as a measure of median box-office revenue, this is not shown because its effect on the BCPE distribution is a translation along the x-axis.

Specifically, Figure 1 shows six plots of the BCPE distribution for different values of the parameters. All six plots have the same  $\mu$ . The top two plots show the effect of changing  $\sigma$  (while keeping the other three parameters fixed), i.e. an increase in the spread of the distribution, the middle two plots show the effect of changing  $\nu$ , i.e. a change in the skewness, and the bottom two plots show the effect of changing  $\tau$ , i.e. a change in the kurtosis. Increasing  $\mu$  increases the median of the distribution (by translation of  $Y$ ), since if  $Y \sim \text{BCPE}(1, \sigma, \nu, \tau)$  then  $\mu Y \sim \text{BCPE}(\mu, \sigma, \nu, \tau)$ . Increasing  $\sigma$  increases the spread (approximate coefficient of variation) of the distribution. Increasing  $\nu$  decreases the skewness from positive skewness when  $\nu < 1$ , to symmetry when  $\nu = 1$  and to positive skewness when  $\nu > 1$ . Increasing  $\tau$  decreases the kurtosis. This is especially clear for the symmetric case when  $\nu = 1$ , with leptokurtosis when  $\tau < 2$  (e.g. the Laplace, two-sided exponential when  $\tau = 1$ ), mesokurtosis when  $\tau = 2$  (the normal distribution), and platykurtosis when  $\tau > 2$  (e.g. the uniform distribution limit as  $\tau \rightarrow \infty$ ). Therefore, these four distribution parameters decide the shape of the curve:  $\mu$  determines the 'signal',  $\sigma$  determines the

Figure 1: Examples of theoretical BCPE distributions



‘magnitude of the probabilities’,  $\nu$  determines the ‘symmetry’ and  $\tau$  determines the ‘fatness of the tails’.

Note that  $Y \sim \text{BCPE}(\mu, \sigma, \nu, \tau)$  implies that  $Y = \mu\varepsilon$ , where  $\varepsilon \sim \text{BCPE}(1, \sigma, \nu, \tau)$  is a multiplicative error model. Hence the proposed model is an additive logarithmic model,  $\log(Y) = \log(\mu) + \log(\varepsilon)$ . As discussed in section 5, the economic interpretation of the multiplicative model suggests a strong form of interaction among film-goers based upon the opening box-office revenues (see also De Vany and Walls, 1996).

### 3. Empirical analysis of box-office revenues in the 1990s

This section conducts an empirical analysis of the box-office revenue with a number of distributions selected from the ‘gamlss.dist’ package in order to develop some degree of order and understanding of the dynamics of the post-opening box-office revenue. First, the parameters of the selected distributions

**Table 1: Big Budget Films released by the major Hollywood studios in 1998;  $Y$ =% of revenue decline.**

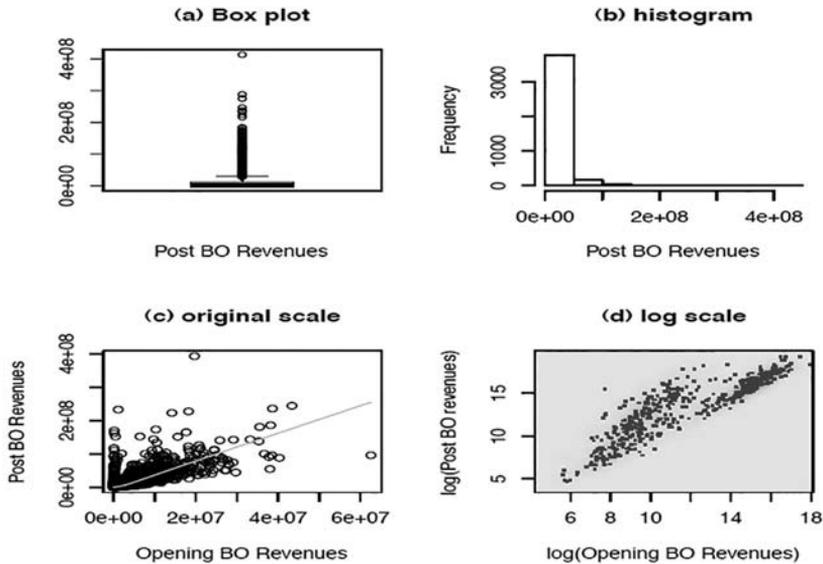
Film	Weeks in top 20	Opening Screens	Screens weeks $\geq 7$	Y, weeks $\geq 3$	Y, weeks $\geq 3$
Armageddon	18	3127	2123	-35	-85
Lethal weapon 4	10	3117	1928	-36	-92
Godzilla	7	3310	1855	-68	-97
Mulan	10	2888	1705	-25	-85
Meet Joe Black	6	2503	1102	-48	-95
Deep impact	11	3156	2624	-43	-89
Babe: pig in the city	4	2384	1525	-61	-91
Mighty Joe Young	7	2502	1621	-23	-84
What dreams may come	7	2526	1392	-31	-91
Enemy of the state	11	2393	1505	-10	-74
A bug's life	12	2686	2551	-48	-73

are fitted as constants – without explanatory variables. Second, the parameters of the selected distributions are modelled as smooth non-parametric functions of the opening box-office revenue as shown in (1). Note that in estimating the parameters of distributions as constants, the end-of-run box-office revenue is used. When we model the parameters of the distributions as non-parametric functions of the opening box-office revenue, the opening box-office revenue is subtracted from the end-of-run box-office revenue to give us the post-opening box-office revenue. Therefore, the difference is used as the response variable and the opening box-office revenue is used as the explanatory variable for the modelling of the distribution parameters.

### 3.1 The 1990s dataset

Films distributed by the major studios survive on screens in the theatrical market for as long as a threshold level of revenue is generated (Vogel, 2007). Since the late 1970s the release schedule adopted by distributors has been based on saturating the market at the moment of release in order to take advantage of pre-release publicity. In order to assess the number of screens to

Figure 2: Descriptive plots of the 1990s box-office revenues



launch a film, the distributor and exhibitor make ex-ante judgments about its likely popularity, forming contingent claims contracts which give either party the leeway to adapt supply quickly in response to subsequent demand signals. For most films, this process entails a rapid life and death process – most movies earn almost all of their box-office revenue in the first six weeks of release (see Table 1). Not surprisingly, the scale of release matters in terms of the revenues generated, giving rise to a long thick right tail statistical distribution (see Figure 2) – audiences are able to get to see those films they have heard about, and when this coincides with positive feedback, they are able to see them for longer periods.

Industry standard data that we use to capture this is supplied by Nielson EDI for the North American market annually for the 13 years 1988 to 1999. All revenues are expressed in 1987 US dollars. During this period 4,164 films were released with revenues ranging from 145 to over 413 million, opening on between 2 and 3,342 screens. Figure 2 shows the highly kurtotic and skewed nature of the industry, which is associated with the difficulty in estimating compressed indicators such as the second, third and four moments.

Figures 2(a) and (b) shows a box plot and histogram of the opening box-office revenue respectively, while Figure 2(c) plots the post-opening box-office revenue against the opening box-office revenue and Figures 2(d) plots the log of post-opening box-office revenue against the log of opening box-office revenue.

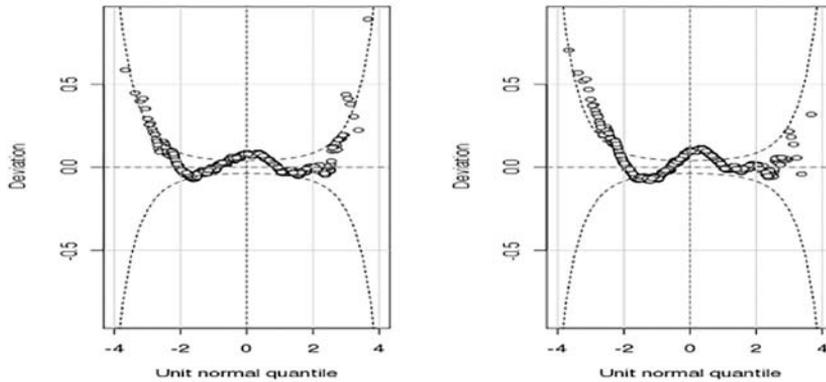
### 3.2 Marginal analysis of box-office revenues

For simplicity in the discussion, throughout the rest of the paper 'post-opening box-office revenues' refers to 'log of post-opening box-office revenues' and 'opening box-office revenues' refers to 'log of opening box-office revenues'.

Table 2 shows a selected subset of the distributions used to fit the end-of-run

**Table 2: A subset of marginal analysis for the 1990s dataset**

Models	Links	GD (AIG) [SBS]
BCPE	$\mu$ $\log(\sigma)$ $\nu$ $\log(\tau)$	20516.9 (20524.9) [2550.2]
SEP3	$\mu$ $\log(\sigma)$ $\log(\nu)$ $\log(\tau)$	20623.6 (20631.6) [20656.9]
SHASH	$\mu$ $\log(\sigma)$ $\log(\nu)$ $\log(\tau)$	20835.3 (20843.3) [20868.6]
BCCG	$\mu$ $\log(\sigma)$ $\nu$	20986.6 (20992.6) [21011.6]
GB2	$\log(\mu)$ $\sigma$ $\log(\nu)$ $\log(\tau)$	21044.1 (21052.1) [21077.5]
LONGO	$\mu$ $\log(\sigma)$	21800.5 (21804.5) [21817.1]

**Figure 3: Worm plot for BCPE and SEP3**

box-office revenues without any explanatory variable. The Global Deviance (GD) is calculated using  $GD = -2\ell$  where  $\ell$  is the fitted log-likelihood function and the Akaike information criterion (AIC) and Schwartz Bayesian information criterion (SBC) are given by  $GD + (k \times df)$  for  $k = 2$  and  $k = \log(n)$  respectively, where  $df$  is number of (effective) parameters in the model. The model with the lowest criterion value is preferred.

Using the GD, AIC and SBC, the BCPE (Box-Cox Power Exponential) distribution developed in Rigby and Stasinopoulos (2004), SEP3 (Skew Exponential Power type 3) distribution developed in Fernandez et.al. (1995), SHASH (Sinh-Arcsinh) distribution developed in Jones and Pewsey (2009) present themselves as the best candidates, although BCPE is clearly the best model distribution. Note that the Pareto II distribution, which dominates the modelling of box-office revenues, is a special case of the GB2 (generalised beta type 2 distribution), Mc-Donald and Xu (1995) equation (2.7), shown in Table 2. These candidates will also be used when the parameters of the distributions are modelled (rather than being treated as constants). It is also important to note that when the parameters of the distributions are modelled, the selected distribution may be different from the selected distribution of the marginal analysis, i.e. when the parameters are constants.

Figure 3 shows the worm plot (van Buuren and Fredriks, 2001) of the marginal BCPE and SEP3 distribution models. Worm plots (detrended Q-Q plots) are used to visualise how well a model fits the data, to find locations at which the fit can be improved, and to compare fits.

Thus, the marginal BCPE model fits well the center of the data but the fit is slightly problematic both in the lower tail and upper tail of the data (where the residual deviations fall outside their confidence bounds). The quadratic shape of the residuals indicates the need to model the skewness using the  $v$  parameter of the distribution. This is addressed in section 3.3 by modelling all the four parameters of the distribution in terms of an explanatory variable as shown in (5), below. SEP3 fits the upper tail (best performing films) data well but it is a poor fit in the non-upper tail. The almost cubic shape of the residuals indicates the need to model the kurtosis using the  $\tau$  parameter of the SEP3 distribution.

### 3.3 Regression-type of modelling of box-office revenues

Given that a set of plausible distributions has been identified for the econometric model, the parameters of the selected distributions are modelled as regression models. In particular, the distribution parameters are modelled using the penalised B-spline function as a way of understanding how the ‘location’, ‘scale’, ‘skewness’ and ‘kurtosis’ parameters of the distribution of the post-opening box-office revenues are affected by the opening box-office revenues. This understanding is of consequence to film finance professionals, traders and investors as well as film distributors and exhibitors. Thus, the model suggests that the opening box-office revenue can, to a substantial extent, separate the high-returns films from the low-returns films.

Table 3 shows the selected subset of the distributions used to fit the post-opening box office revenues with the opening box-office revenues as the explanatory variable. Using the GD, AIC and SBC, the BCPE distribution outperforms the other distributions. Thus, the empirical GAMLSS-based econometric model is  $Y \sim \text{BCPE}(\mu, \sigma, v, \tau)$ , where

$Y = \log(\text{Post-opening box-office revenue})$  and  $x = \log(\text{Opening box-office revenue})$ :

$$\begin{aligned}\mu &= pb(x, df = 10.5) \\ \sigma &= \exp \{pb(x, df = 8.5)\} \\ v &= pb(x, df = 7) \\ \tau &= \exp \{pb(x, df = 4)\}\end{aligned}$$

(5)

**Table 3: A subset of regression-type analysis for the 1990s dataset**

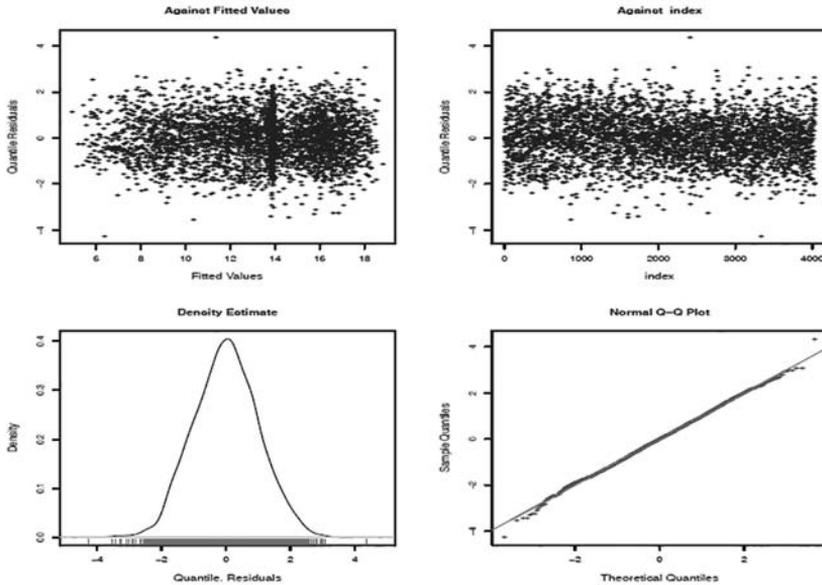
Models	Links	GD (AIG) [SBS]
BCPE	$\mu$ $\log(\sigma)$ $\nu$ $\log(\tau)$	11728.3 (11804.3) [12043.8]
SEP3	$\mu$ $\log(\sigma)$ $\log(\nu)$ $\log(\tau)$	11776.7 (11852.7) [12092.2]
SHASH	$\mu$ $\log(\sigma)$ $\log(\nu)$ $\log(\tau)$	11762.6 (11838.6) [12078]

where, for example,  $\text{pb}(x, \text{df} = 10.5)$  is a non-parametric smoothing function of  $x$  with an additional 10.5 degrees of freedom for smoothing on top of the linear term. The effective degrees of freedom ( $\text{edf} = \text{df} + 2 = 12.5$ ) where the additional 2 degrees of freedom accounts for the linear term. Since  $\text{edf} \geq 3$ , non-ergodic dynamics are in operation in the motion picture industry.

Figure 4 shows the residual diagnostic plots of the GAMLSS-based econometric fitted model in (5) as a way of assessing its empirical fit. Figure 5 is a worm plot which is a complementary diagnostic plot used to visualize how well a model fits the data. Both diagnostic plots show that the fitted model fits very well the data with the exception of extreme lower tail of the data, as the theoretical lower tail is slightly less extreme than the data lower tail, despite the fact the both the skewness and the kurtosis of the distribution of the post-opening box-office revenues were modelled as shown in (5). This might suggest that the lower tail of the distribution of the post-opening box-office revenue slightly fails to capture the extreme skewness of the data. To check for this, Figure 6 shows sixteen worm plots (van Buuren and Fredriks, 2001) of the residuals of the fitted model in sixteen non-overlapping ranges of the explanatory variable opening box-office revenues.

Figure 6 shows an adequate fit across the dataset, with a few exceptions. The general absence of quadratic and cubic shapes indicates the absence of

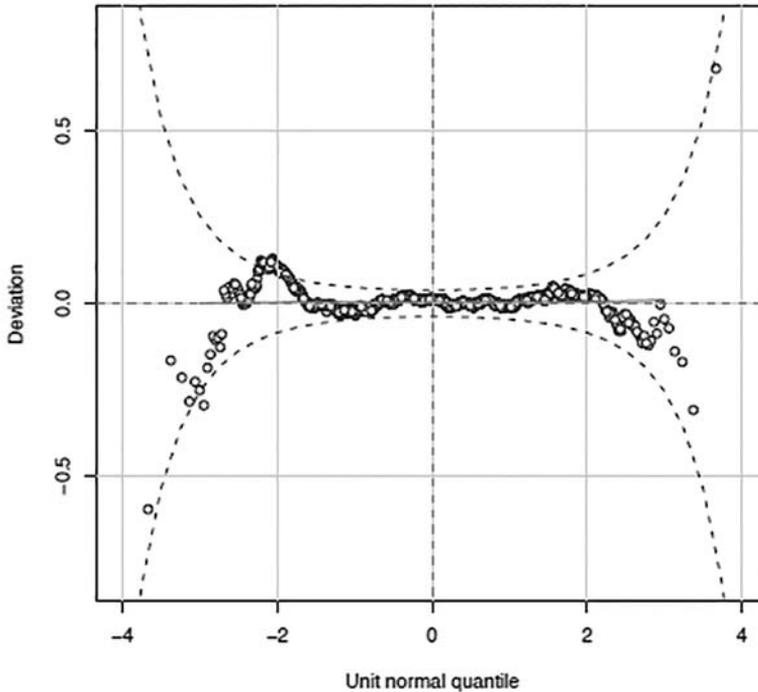
**Figure 4: Residual plots of the 1990s fitted model**



skewness and kurtosis, respectively in the residuals. The GAMLSS-based econometric model fit to the data appears appropriate.

As discussed in section 5, using the GAMLSS-based econometric model, Figure 7 graphically shows the dynamics of  $\mu$ ,  $\sigma$ ,  $\nu$  and  $\tau$  of (5) given the opening box-office revenues. Figure 7(a) shows that the  $\mu$  (median) of the post-opening box-office revenues increases as the opening box-office revenue increases with the exception of  $x$  in the interval 12-14 where  $\mu$  is relatively flat. This indicates that there are 'three phases' in the dynamics of  $\mu$  of the post-opening box-office revenues: One for the poorly performing film, one for the broad middle and one for the best performing films in terms of opening box-office revenue. Figure 7(b) shows that the  $\sigma$  (approximate coefficient of variation) of the post-opening box-office revenues generally decreases (with a slight temporary upward trend) as the opening box-office revenue increases. The 'coefficient of variation'  $\rightarrow 0$  when the opening box-office is greater than 16 which implies that the 'average' dominates the 'variance' of the opening box-office revenues. This reveals important information about the demand dynamics of the motion picture industry in the 1990s. Figure 7(c) shows the

Figure 5: Worm plot of the 1990s fitted model



dynamics of the  $v$  of the post-opening box-office revenues. The general pattern is characterised by non-periodic cycles with a slight increase in  $v$  (decrease of skewness) up to  $x = 10$ . This is followed by a sharp decrease in  $v$  (increase of positive skewness) between  $x = 10$  and  $x = 14$ . When the opening box-office revenue is in the region of 10, the distribution of the post-opening box-office is approximately symmetric. This might explain the temporary plateau of the  $\mu$  of Figure 7(a). Within the region of the interval of 10-14, it is observed that the performance of the films, as approximated by the post-opening box-office revenues, is characterised by wild fluctuations in the skewness of the distribution. Figure 7(d) shows the dynamics of the  $\tau$  of the post-opening box-office revenues. The noticeable characteristic here is the extreme platykurtosis observed in the region of 12 of the opening box-office revenue. This is followed by a sharp decrease in  $\tau$  (increase in kurtosis) in the interval 12 to 14. In the region of the interval 14-16, the distribution of the post-opening box-office becomes

leptokurtotic. Clearly, there is a wild change of the distribution of the post-opening box-office revenues when the opening box-office revenues change from 12 to 14, although the median remains roughly constant, the coefficient of variation declines sharply while the skewness and kurtosis both increase sharply.

To summarise, the dynamics of box-office revenues are described by the shapes of the parameters shown in Figure 7. The flexibility, in terms of the behaviour of the tails, of the distribution of (5) captures the complexity of the dynamics of the post-opening box-office revenues. This reflects that fluctuations of the box-office revenues, as a measure of risk, are measurable and manageable based upon the opening box-office revenues. This has never been reported before. The proposed model leaves room for big post-opening box-office revenue swings. This reflects that (1) can be viewed a foundation on which to build risk-managed film diffusion processes and investment strategies using relevant theories such as the stochastic portfolio theory (Fernholz and Shay, 1982 and Fernholz, 2002).

#### **4. Invariance of the GAMLSS-based econometric model**

An ideal model of dynamics of the post-opening box-office revenues is one that seeks a ‘descriptive phenomenology’ that is organised tightly enough to bring a degree of order and understanding at different time periods and/or scales of time. Thus, to test whether the proposed model of (1) covers the greatest number of empirical facts without ‘ad hoc’ patches or fixes, we use a sample of the 1930s motion picture market.

The 1930s dataset is the output of a system of film distribution that is very different from the system of film distribution that emerged from late 1970s. Unlike today, when most films experience saturation release, the system in the 1930s resembled a cascade in which major studio productions were first released to a small number of box-office rich showcase cinemas in metropolitan centres, where they built reputation, before being put out through time and place, to a myriad of cinemas in particular localities, demarcated into runs based on their box-office capability. In effect audiences in metropolitan centres expressed a time preference for movies, sometimes paying a premium for the privilege of an earlier screening, rather than waiting until the film appeared at a later date at lower status, generally less well accounted, cinema in their locality. The system of film distribution thus conformed to a price discrimination model, in which the pattern of diffusion was controlled by distributors intent on maximizing film revenues, while at the same time economizing on

Figure 6: 16 Worm plots of the 1990s fitted model

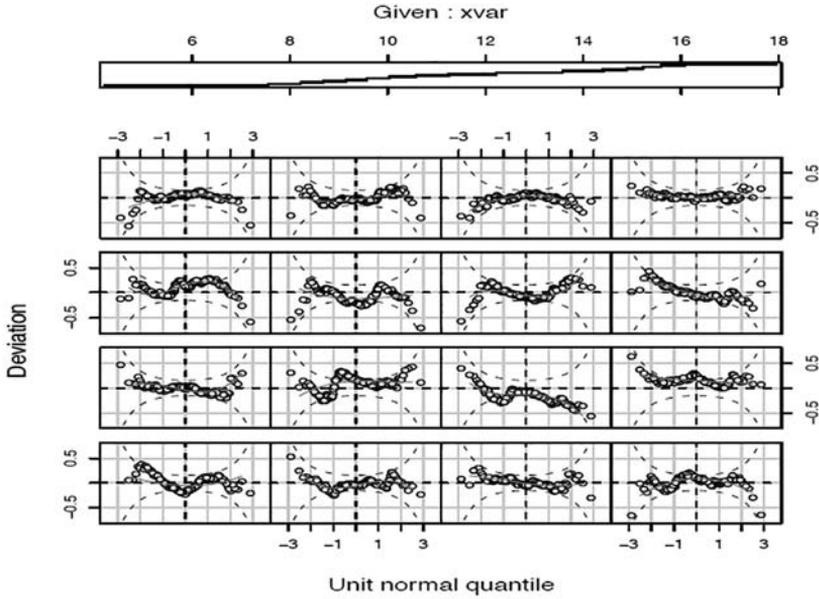
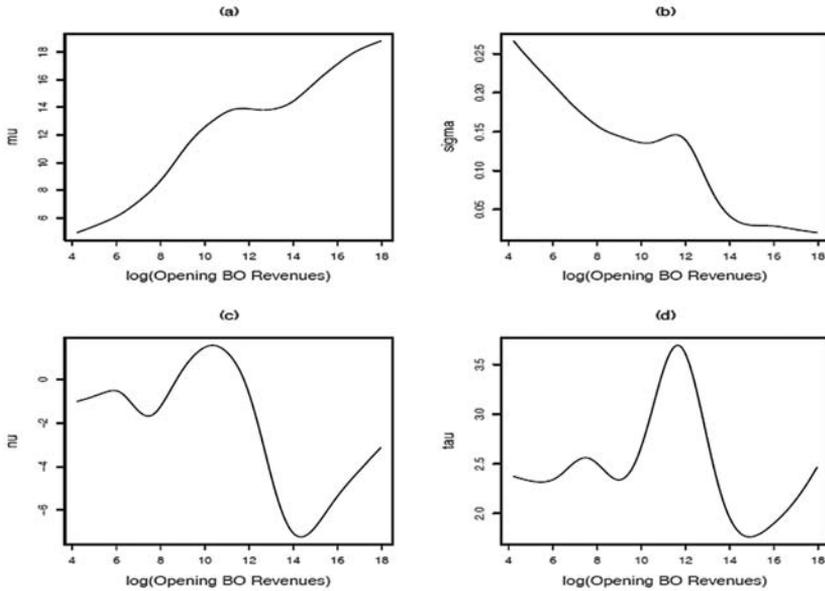


Figure 7: Dynamics of the parameters of the 1990s fitted model



the number of prints that needed to be made in order to satisfy the requirements of circulation. Figure 8, for example, shows descriptive plots of the box-office revenues in the 1930s, which shows that US theatrical movie market of the 1930s is also skewed and kurtotic (although at a lesser degree). This lower skewness and kurtosis should be reflected in the fitted model.

The 1930s box-office data were reported weekly in the trade journal *Variety* and refers to the diffusion of films of 104 first-run cinemas located in 24 cities across North America between October 1934 and October 1936. These cinemas were top of the range, representing the first tier in the diffusion process described above. Altogether the dataset comprises the exhibition records of 969 films that received between them 11,016 screenings at these 104 cinemas. The most popular films opened and had extended runs in the very large box-office rich cinemas of New York and Chicago, before being released weeks later to the cinemas of the large provincial city centres such as Philadelphia and Los Angeles, after which they were screened weeks later in regional cities such as Tacoma and Denver. All of this occurred before wider distribution to second-, third-, fourth-run, and so on, cinemas everywhere. Figure 9, for example, shows the end-of-run box-office revenue distributions grouped by a sample of cities.

We fitted model (1) to the box-office revenues of the 1930s and Figure 10 shows an adequate fit of the fitted model across the dataset. Therefore, the cross-modelling of the 1990s and 1930s datasets using mode (1) do not only reflect different time periods but also different institutional systems in terms of structure and functioning as discussed above (see Sedgwick and Pokorny, 2005, for a discussion of the movie market in the 1930s).

The empirical model below, which reflects the characteristics of the 1930s movie market, is

$Y \sim \text{BCPE}(\mu, \sigma, v, \tau)$ , where

$Y = \log(\text{Post-opening box-office revenue})$  and  $x = \log(\text{Opening box-office revenue})$ :

$$\mu = pb(x, df = 0)$$

$$\sigma = \exp \{pb(x, df = 2)\}$$

$$v = pb(x, df = 4)$$

$$\tau = \exp \{pb(x, df = 1.5)\}$$

(6)

Figure 8: Descriptive plots of 1930s box-office revenues

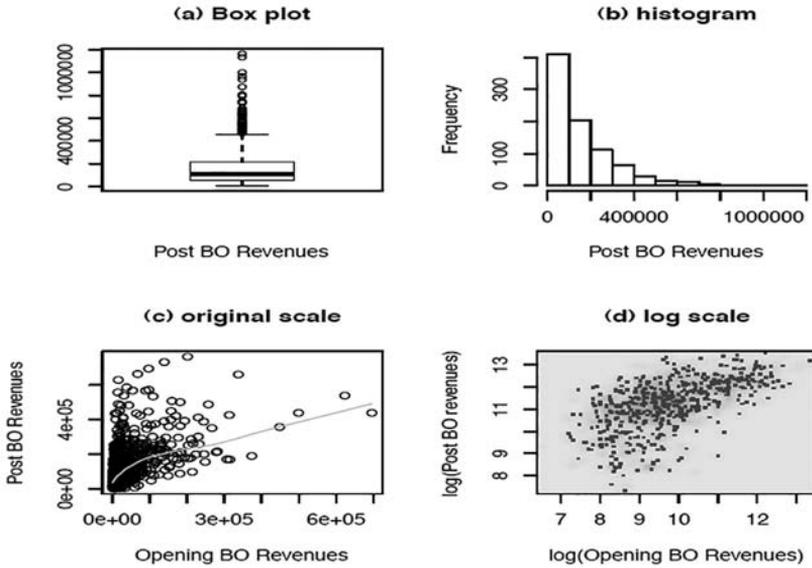


Figure 9: Geographic distribution of the 1930s box-office revenues

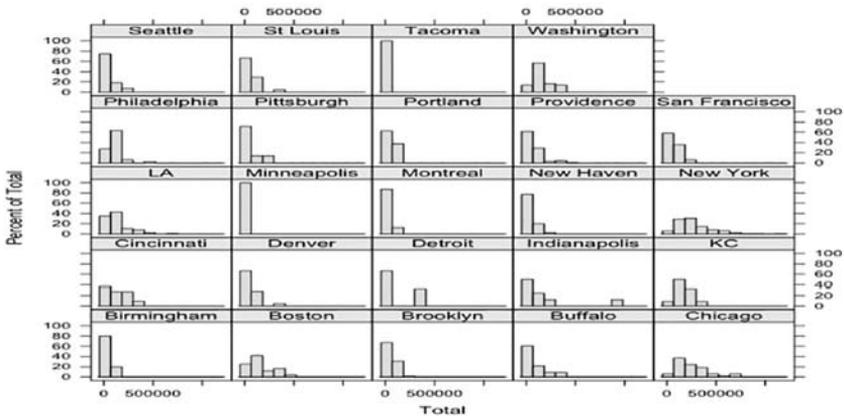


Figure 11 graphically shows the dynamics of  $\mu$ ,  $\sigma$ ,  $v$  and  $\tau$  of (6) given the opening box-office. The shapes of the curves of the parameters of the fitted econometric model reveals that the dynamics of the post-opening box-office revenues of the 1930s are different from that of the 1990s, meaning that changes in institutional and socio-economic characteristics aspects the demand dynamics of the motion picture industry, as captured by the parameters of the model. In particular, Figure 11(a) show a clear linear trend of  $\mu$  (resulting from  $df = 0$  i.e. zero degrees of freedom for smoothing on top of the linear term): as the opening box-office increases, the median  $\mu$  of the post-opening box-office revenue increases as well. Figure 11(b) shows a general decrease of the  $\sigma$  of the post-opening box-office revenue as the opening box-office increases. The  $v$  the post-opening box-office revenue, as represented in Figure 11(c), changes from positive skewness to negative skewness rapidly until the opening box-office revenue is in the region of 9 and then it is becoming symmetric in a gradual manner. The  $\tau$  also changes as the opening box-office revenue increases as shown in Figure 11(d), meaning that the distribution of the post-opening box-office revenue is becoming mesokurtic from platykurtic. Collectively the shape of the curves of the  $\mu$ ,  $\sigma$ ,  $v$  and  $\tau$  parameters of (6) shows that agents in the film industry of the 1930s market experienced less uncertainty (compared with the 1990s market) and had better information in planning the post-opening supply arrangements – knew what they were doing in terms of post-opening supply arrangements.

It is important to emphasise here that the edf of the  $\mu$ ,  $\sigma$ ,  $v$  and  $\tau$  parameters of (6) are less than the edf of the  $\mu$ ,  $\sigma$ ,  $v$  and  $\tau$  parameters of (5), as was expected by cross-examining graphically, particularly the skewness and kurtosis, the 1990s and 1930s datasets (see for example Figures: 2, 8 and 9). These edf smoothing hyper-parameters were chosen automatically by maximum likelihood estimation and were also rechecked using the function `find.hyper()` by minimizing the generalized Akaike information criterion (GAIC), proposed by Akaike (1983), with a user defined penalty of  $k = 3$  (see section 2). This reflects that (1) is flexible enough to capture the dynamics of motion picture industry, or at a more general level, economic phenomena exhibiting degrees of skewness and kurtosis over time.

Through the mathematics of probability, we provide the basic properties of the probability distribution of post-opening box-office revenues, which characterise the demand dynamics of the motion picture industry in the 1990s and 1930s. In both eras we use the same mathematical formula given in (1) to capture a vast range of factors (e.g., preferences and motions of filmgoers as well as Oscar nominations) that determine activity on the motion picture

Figure 10: Sixteen worm plots of residuals of the 1930s fitted model

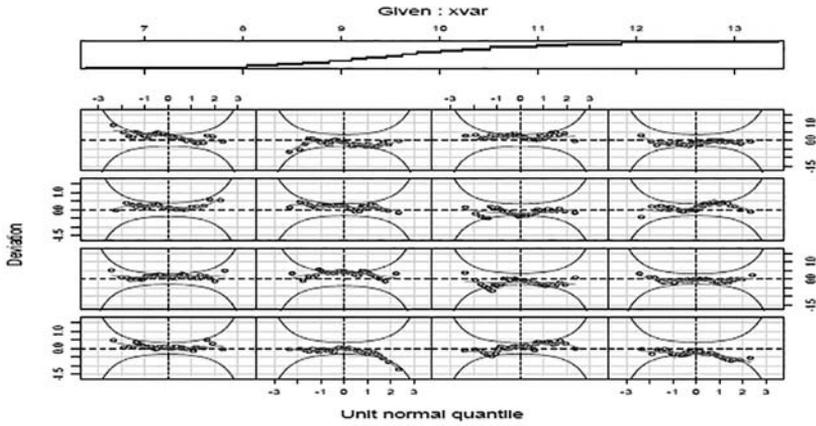
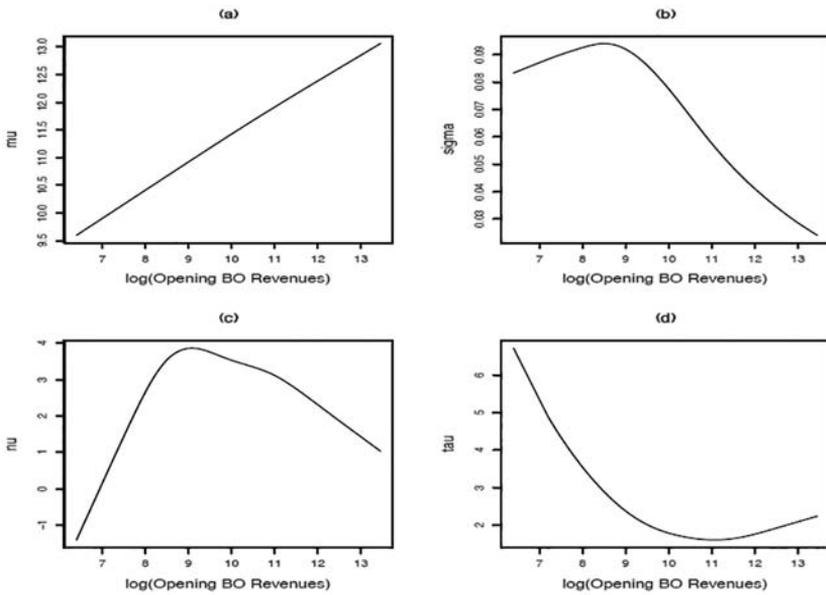


Figure 11: Dynamics of the parameters of the 1930s fitted model



market. These demand dynamics of the motion picture industry in the two eras, as captured by the modelling of  $\mu$ ,  $\sigma$ ,  $\nu$  and  $\tau$  parameters, are explained below.

## 5. Explaining the industry through $\mu$ , $\sigma$ , $\nu$ , and $\tau$

Given that film contracting arrangements between distributors and exhibitors are characterised by film rentals (percentage of the box office revenue), minimum booking periods (usually a minimum number of 4, 6 or 8 weeks in the 1990s) and by hold-over clauses, as detailed in De Vany and Eckert (1991), the results reported above are of value to exhibitors and distributors in managing probabilistically the opportunity cost of post-opening release strategies. This is because we show that there is enough information to make informed post-opening choices of films. The dynamics of the coefficient of variation (see Figure 11(b) and Figure 7(b)), as a measure of the variation of a consensus option about a film suggested in De Vany and Walls (2004b), suggests that film-goers engage in a heterogeneous behaviour based upon the magnitude of the opening box-office revenue. This reflects that supply adjusts dynamically to demand using a decentralised decision-making process about bookings. Clearly, this dynamic adjustment of film contracting arrangements is also of value to traders and investors who trade futures contracts indexed to a film's box-office performance.

The demand discovery process of the 1990s is examined here by describing the dynamics of the  $\sigma$ ,  $\nu$  and  $\tau$  parameters<sup>2</sup> of the BCPE distribution as modelled in (5). Figure 7 (note the scale of the y-axis) shows that:

- The process  $\sigma$ , as a measure of variation around a consensus option about a film, reduces as the opening box-office revenues increases (see Figures 7, 12 and 13). This reflects the 'opening power' in terms of generating a momentum for demand for these class of films. This seems to suggest that for strong opening films, filmgoers have enough information through information cascades about these films. For poor opening films, there is high uncertainty of film-goers experience about films, as measured by the high variation around a consensus opinion, leading to a high chance of poor post-opening performance but a vanishing chance of very good post-opening performance. We term this 'information bandwagon' in which the cascade usually kills the film. Films in the broad middle not only have a higher

---

2 There is a separate discussion of i)  $\sigma$  and ii)  $\nu$  and  $\tau$  because we want to separate 'self-similar' (i) effects from 'self-affine' (ii) effects.

median but also higher probability to become blockbusters. This reflects the strong interactions of ‘information bandwagon’ and ‘(positive) information cascades’ as captured by the  $\sigma$  parameter of the multiplicative error model.

- The process parameters,  $v$  and  $\tau$ , as a primary measure of chance of extreme tail box-office revenues, shows that for strong opening films, depict a moderate positive skewness and moderate leptokurtosis around the median box-office revenue, the chance of very extreme outcomes being relatively small (see Figures 7, 12 and 13). This is a re-confirmation that film-goers have enough information through information cascades about these films, which implies that a Bayesian behavioural process is in operation. This Bayesian behavioural process is not because of information accumulation through time but because of the magnitude of the opening power. Poorly opening films have a low positive skewness. Taken with the high  $\sigma$ , this suggests that the chance of very extreme outcomes are moderate because of the high variation around a consensus opinion about a film. It seems that ‘positive’ and ‘negative’ information about films affect filmgoers’ behaviour asymmetrically. This is consistent with the observation that a ‘small’ volume of bad news, captured by the opening box-office revenue, kills a film. This ‘asymmetry’ is also observed in other settings as discussed by Black (1976) and Calvet and Fisher (2008) - investors learn abruptly about bad news but slowly about good news. Films that do not perform particularly well or badly on opening are likely to have an almost symmetric and platykurtic distribution with a moderate degree of consensus opinion. This is reflected in the center ‘bell’ of the distribution which leaves vanishing probabilities for very extreme outcomes. In terms of filmgoer behaviour, this suggests consumers do not have enough positive information or relatively high uncertainty about these movies. Thus, big swings are allowed in the BCPE distribution, which is the quintessential characteristic of the motion picture industry.

The demand discovery process of the 1930s is examined here by describing the dynamics of the  $\sigma$ ,  $v$  and  $\tau$  parameters of the BCPE distribution as modelled in (6). Figure 11 (note the scale of the y-axis) shows that:

- The variation around a consensus option about a film,  $\sigma$ , reduces as the opening box-office revenues increase (see Figures 11, 14 and 15). This reflects the ‘opening power’ is also confirmed in the 1930s despite the different institutional arrangements (see section 4).

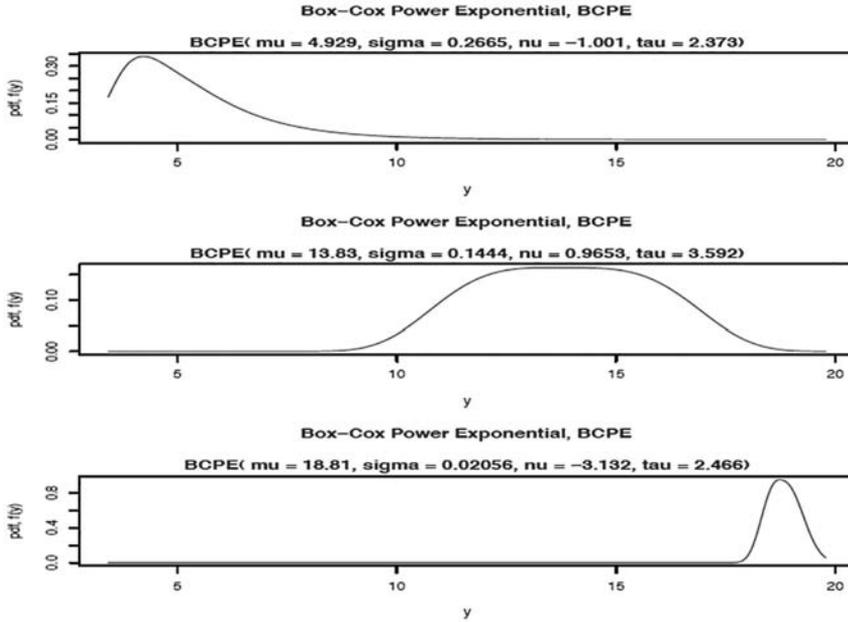
Again, for poor opening films, there is high uncertainty about the quality of the films. What is noticeable, however, is that this uncertainty captures a great number of films as shown by the initial ‘increase’ of the  $\sigma$ . This seems to reflect that the speed of the information cascades affects the level of uncertainty among filmgoers. This is not observed in the 1990s possibly because of the institutional changes and the dramatic change in the information and communication technologies (ICT).

- The process parameters,  $\nu$  and  $\tau$ , as a measure of chance, shows smoother patterns (see Figures 11, 14 and 15). The strong opening films, almost symmetric and mesokurtotic distributions confirm that film-goers have enough information because of the opening magnitude through information cascades. Thus, the speed of the cascade has little effect because of the opening power. What is noticeable, however, is that for the poorly opening movies the speed of the information cascades is important as these films have higher likelihoods to earn higher revenues compared with the poorly performing films of the 1990s. This reflects that the uncertainty of film quality communicated by filmgoers through information cascades fails to ‘kill’ films as an early stage. This ‘fail to kill films’ process is also explained by considering that during the 1930s cinemas attracted 70% of all paid-for entertainment admissions in the market - there were no real substitutes. Thus cinemas needed a regular supply of new films, often running weekly change, double bill programmes. This meant that there was a market for poorer quality films.

Therefore, by describing the dynamics of the distribution parameters of the proposed model, we gain an understanding for (b) and (c) (see section 1). This reflects that (1) and its associated dynamics leads to genuine insights about the motion picture industry. This understanding has similarities with the understanding of the Bose-Einstein distribution in that film-goers select a film proportional to the fraction of the previous (leader) film-goers who selected that film (De Vany and Walls, 1996). However, under the BCPE distribution, the box-office revenues are not equally likely as is the case with the Bose-Einstein distribution. In line with the argument of De Vany and Walls (1996), we also find evidence of strong interaction among members of the population of filmgoers, as one would expect information to spread, given that i) the BCPE is an multiplicative error model and ii) the proposed models are logarithmic.

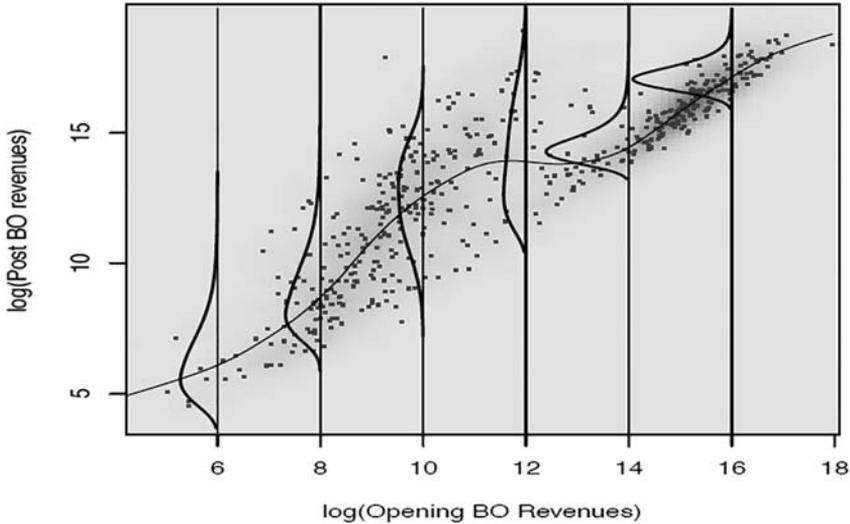
Depending on the opening box-office revenue, filmgoers, as consumers of infrequently consumed experienced goods, approximately know their

Figure 12: Probability density functions for three films in the 1990s.



evaluations on the basis that the ‘opening power’ renders the deviations about the consensus opinion  $\cong 0$  while the ‘quality signal’ is revealed because of the opening magnitude through information cascades (see Figure 7). Following Glaeser et.al. (2003) and Moretti (2010), this ‘social multiplier’ implies that attracting a new filmgoer has a multiplier effect on box-office revenues because it increases the demand of other filmgoers. This finding is also consistent with the work of Becker (1991) who developed a model of network externalities where the demand for a good (e.g., film) by a person (e.g., filmgoer) depends positively on the aggregate quantity demanded of the good by hypothesising that the pleasure from some goods is greater when many people want to consume it.

However, agents (e.g., film distributors and exhibitors as well as film finance professionals, investors and trader) are also interested in the demand dynamics of selected films, as revealed through probabilistic statements rather than point forecasting statements. Here, we provide probabilistic statements of the demand dynamics of the post-opening box-office revenues rather than point forecasting statements because the factors that determine activity on

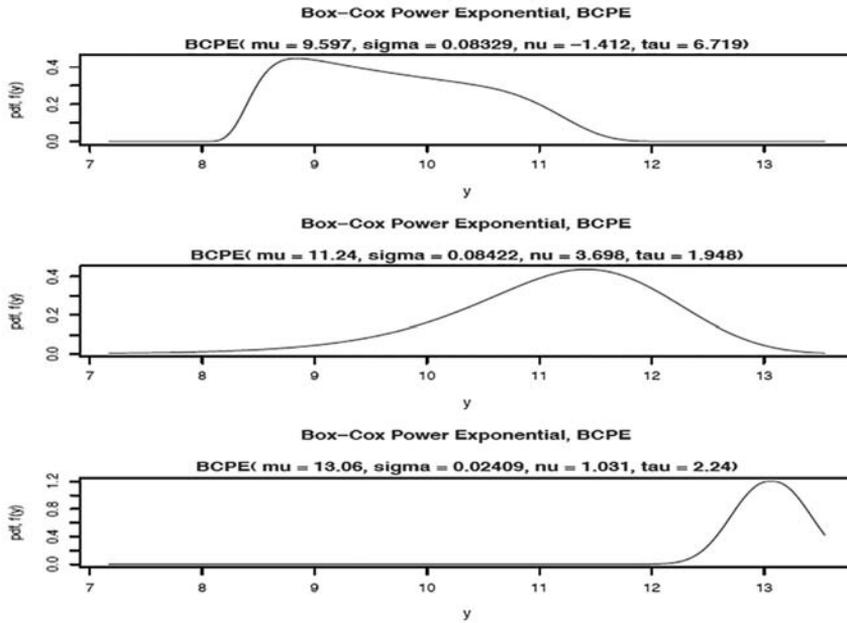
**Figure 13: Scatterplot with probability density functions in the 1990s**

the motion market are innumerable ex-ante, meaning that it is difficult, if not impossible, to hope for mathematical forecasting but is not impossible to study through the mathematics of probability the state of the market at given instances.

Figure 12, for example, shows fitted probability density functions of 1990s post-opening box-office revenues of three selected movies in order of opening box-office revenue, lowest first. These are: *Lilian's Stor* (minimum), *Grizzly Mountain* (approximately median) and *The lost world: Jurassic Park* (maximum). Thus, by using (1), the shape of distribution of the post-opening box-office revenue can be estimated once the opening box-office revenue is known. The shape of distribution of post-opening box-office revenue *Lilian's Stor* exhibits a positive skewness while the shape of distribution of the post-opening box-office revenue *Grizzly Mountain* exhibits a symmetric but a strong platykurtosis. The shape of distribution of the post-opening box-office revenue *The lost world: Jurassic Park* exhibits positive skewness. Thus, probabilistic statements can be used a) to 'correctly price' futures contracts indexed on film's performance and b) post-opening diffusion arrangements (film rentals and booking periods of ) can be dynamically adjusted.

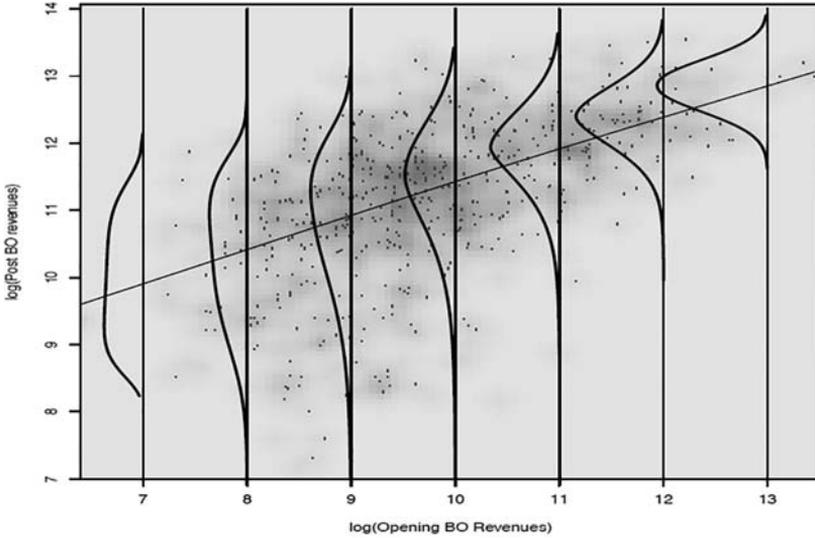
Figure 13, which is generalisation of Figure 12, is a two-dimensional

Figure 14: Probability density functions for three films in the 1930s



histogram smoothing with a) probability density functions superimposed in order of opening box-office revenues and b) the median,  $\mu$ , of the post-opening box-office revenues. This reconfirms the claim made earlier that probabilistic statements of the demand dynamics of the post-opening box-office revenues are possible based upon opening box-office revenues for the whole range of films. Therefore, given the probability density based upon (1) and the known opening box-office revenues reported in the trade journal Variety or the Nielsen BookData, likelihood assessments of post-opening box-office revenues are possible early in the lifetime of the films.

For completeness, Figure 14 below shows the fitted probability density functions of the post-opening box-office revenues of three selected movies in the 1930s in order of opening box-office revenue, lowest first. These are: Elinor Norton (minimum), 6 Day Bike Rider (approximately median), Top Hat (maximum). The distribution of the film Elinor Norton is positively skewed and platykurtic. This is very different from the shape of the distribution of the Lilian's Stor' as show at the top of Figure 12. This might be a reflection of the different diffusion arrangement in the 1930s and 1990s as well as the

**Figure 15: Scatterplot with probability density functions in the 1930s**

dramatic change in information and communication technologies (ICT) discussed above. In other words, a less-well performing film in the 1930s had a higher probability of achieve higher post-opening revenues than a less-well performing film in the 1990s because of different diffusion rates of ‘information bandwagon’ effect as termed by De Vany and Walls (1996). The 1930s film *6 Day Bike Rider* has a moderate negatively skewed distribution compared with 1990s *Grizzly Mountain*, which is symmetrical and platykurtic. This is a reflection that in the 1930s the stepped cascade of film releases resulted in a managed post- opening dynamics because the reputation was built through time and space as discussed in section 4. The 1930s *Top Hat* film is positively skewed compared with the 1990s *The lost world: Jurassic Park* film which is symmetric, both distributions have a low spread. It is important to note that for the best-performing films, the different characteristics of the dynamics of the post-opening box-office revenues reduces. This seems to suggest that for the best-performing films, changes in the institutional and socio-economic characteristics have limited impact on the performance of these films. Figure 15 is generalisation of Figure 14, as discussed above.

To summarise, invariance is defined as the same mathematical formulae of (1) describing empirically similar patterns of the 1990s and 1930s motion

picture industry. For example, the market characteristics, as shown in Figures 13 and 15, show that films with strong opening box-office revenues are governed by relatively 'mild' randomness while films in the broad middle of opening box-office revenues are governed by 'wild' randomness meaning that films with moderately opening box-office revenues have a small but not vanishing probability in becoming blockbusters - this is the quintessential characteristic of the motion picture industry (see also Mandelbrot, 1997, for a discussion of the different states of randomness). These states of randomness, explaining aspects of film-goers' behaviour, are mixed together in the crucible of the motion picture market. Model(1) also captures different patterns, e.g. the outputs of different institutional arrangements for the poor opening films in the 1990s and 1930s market.

## **6. Summary and Conclusions**

This paper is among the few studies to quantify social learning using real world, industry-wide data. It is probably the first study to do this in two eras that represent different social-economic characteristics and institutional arrangements. As discussed by Moretti (2010), while laboratory experiments are useful, it is empirical experiments with real world data that are necessary to establish the importance of social learning, informational cascades and information bandwagons in practice. This has been developed here using a unique feature of the motion picture industry, namely the opening box-office revenues as approximations to informational signals.

We find that social learning is an important determinant of sales in the movie market. In particular, the dynamics of  $\sigma$ , as a measure of variation around a consensus option about a movie, reduces as the opening box-office revenues increases-consumers have enough information through information cascades about these movies. For poor-opening movies, there is high uncertainty of consumers experience about movies, as measured by the high variation around a consensus opinion, leading to a high chance of poor post-opening performance. Films in the broad middle, there is a strong interactions of 'information bandwagon' and '(positive) information cascades' as captured by the  $\sigma$  parameter of the multiplicative error model. Thus, through the non-parametric modelling of  $\sigma$ , we provide evidence that is consistent with the social learning hypothesis for selected groups of movies.

In finding a degree of order in post-opening expected consumption decisions (as discussed in section 3 and section 4), it is suggested that film finance professionals, traders and investors as well as film distributors and exhibitors

can come to a better understanding of the demand dynamics and peer effects in consumption of films' performances as measured by their box-office revenues.

In explaining the motion picture industry, we provide evidence for the dynamic optimisation of supply arrangements based upon the demand dynamics as captured by the modelling of the  $\mu$ ,  $\sigma$ ,  $v$ , and  $\tau$  parameters of (1). Therefore, films' performances are modelled by the distribution of the post-opening box-office revenues. Thus, pre-opening strategies seem to be important as the opening power reduces the variation of consensus opinion about a film - strong effect of social learning because of the magnitude of the informational signal.

From a methodological perspective, an interesting consequence of the work presented here is to revisit the existing literature of the motion picture industry that claims that pre-opening strategies (made up of  $J_k$  factors) such as film production budget, advertising, opening screens and the presence of superstars have not explanatory power in terms of ex-ante understanding of the demand dynamics and peer effects of post-opening consumption decisions. This requires to update the generalized additive model (1). Therefore, the updated general form of (1), using the four parameters BCPE distribution, could be:

$$\begin{aligned}
 g_1(\mu_i) &= \sum_{i=1}^{J_1} h_{j_1}(x_{ji1}) \\
 g_2(\sigma_i) &= \sum_{i=1}^{J_2} h_{j_2}(x_{ji2}) \\
 g_3(v_i) &= \sum_{i=1}^{J_3} h_{j_3}(x_{ji3}) \\
 g_4(\tau_i) &= \sum_{i=1}^{J_4} h_{j_4}(x_{ji4})
 \end{aligned}
 \tag{7}$$

where the parameters  $\mu$ ,  $\sigma$ ,  $v$  and  $\tau$  are modelled using additive smoothing functions of  $J_1, J_2, J_3$  and  $J_4$  explanatory variables respectively.

In terms of adaptive contracting, we propose probabilistic statements (shown graphically in Figures: 13 and 15) to support risk-taking exhibitors in

managing probabilistically the opportunity cost of post-opening release strategies by making informed post-opening choices of films in terms of lengthening or shortening the run early in the lifetime of the films. Distributors also benefit from the same information by setting the rentals which are directly linked to consumption expectations. The opening box-office revenues, as an explanatory variable of post-opening consumption decisions, reveals a quantity signal given the inflexible admission prices of the industry.

The industry's institutional arrangements in the 1930s and 1990s and adaptive supply arrangements make sense by interpreting the  $\mu$ ,  $\sigma$ ,  $\nu$  and  $\tau$  parameters as shown graphically in Figure 11 and Figure 7 respectively and by taking into account the decentralised decision-making process of the motion picture industry. This suggests that industry is best viewed as a complex adaptive system governed by the forces of change and agglomeration. For example, our results show that films that have a strong opening are likely to experience high post-opening revenues, meaning that the movie market-share dynamics are non-ergodic. It is also consistent with the existence of heterogeneous interacting consumers that generate skewed and kurtotic macro-regularities which are captured by model (1) for the two different eras. The BCPE distribution provides a very flexible distribution for modelling empirical phenomena exhibiting different location, scale, skewness and kurtosis as demonstrated in Figures 13 and 15.

It is clear that model (1) provides a highly flexible framework for practical applications, which may be applied in a variety of areas. In particular, there are other aspects of the entertainment industry for which the proposed model would be seen to be appropriate such as music concerts, books and unusual food restaurants. Looking at the films as infrequently consumed experienced goods, it might also be appropriate for infrequently consumed legal (e.g., murder trial) and financial (e.g., property financing) services where demand signals from 'early' agents are important.

## References

- Akaike, H. (1983). Information measures and model selection. *Bulletin of the International Statistical Institute*, 50: 277–290.
- Arthur, W. B. (1988). *The Economy as an Evolving Complex System*, volume 5, chapter 5, chapter
- Self-Reinforcing Mechanisms in Economics. Addison Wesley, Redwood City California.
- Becker, G. S. (1991). A Note on Restaurant Pricing and Other Examples of Social Influences on Price. *Journal of Political Economy*, 99: 1109–1116.

- Bikhchandani, S., H. D. and Welch, I. (1992). A Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades. *The Journal of Political Economy*, 100: 992–1026.
- Bikhchandani, S., H. D. and Welch, I. (1998). Learning from the Behavior of Others: Conformity, Fads, and Informational Cascades. *The Journal of Economic Perspectives*, 12: 151–170.
- Black, F. (1976). Studies of stock price volatility changes. *Proceedings of the 1976 Meetings of the American Statistical Association, Business and Economical Statistics Section*, pp.177–181.
- Calvet, L. and Fisher, A. (2008). *Multifractal volatility: Theory, forecasting and pricing*. Academic Press, London.
- Cole, T. J. and Green, P. J. (1992). Smoothing reference centile curves: the LMS method and penalized likelihood. *Statist. Med.*, 11: 1305–1319.
- De Vany, A. and Eckert, R. (1991). Motion picture antitrust: the Paramount cases revisited. *Research in Law and Economics*, 14: 51–112.
- De Vany, A. and Walls, W. D. (1996). Bose-Einstein dynamics and adaptive contracting in the motion picture industry. *Economic Journal*, 106: 1493–1514.
- De Vany, A. and Walls, W. D. (2004). *Hollywood Economics: How Extreme Uncertainty Shames the Film Industry*, chapter Quality evaluations and the breakdown of statistical herding in the dynamics of box-office revenue. Routledge, London.
- De Vany, A. and Walls, W. D. (2004). Motion picture profit, the stable Paretian hypothesis, and the curse of the superstar. *Journal of Economic Dynamics and Control*, 28: 1035–1057.
- Eilers, P. H. C. and Marx, B. D. (1996). Flexible smoothing with B-splines and penalties (with comments and rejoinder). *Statist. Sci.*, 11: 89–121.
- Fernandez, C., Osiewalski, J. and Steel, M. J. F. (1995). Modeling and inference with v-spherical distributions. *J. Am. Statist. Ass.*, 90: 1331–1340.
- Fernholz, R. (2002). *Stochastic Portfolio Theory*. Springer, New York.
- Fernholz, R. and Shay, B. (1982). Stochastic portfolio theory and stock market equilibrium. *Journal of Finance*, 37: 615–624.
- Glaeser, E. Sacerdote, B. and Scheinkman, J. (2003). The Social Multiplier. *Journal of The European Economic Association*, 1: 345–353.
- Haavelmo, T. (1943). The statistical implications of a system of simultaneous equations. *Econometrica*, 11: 1–12.
- Haavelmo, T. (1944). The probability approach in econometrics. *Supplement to Econometrica*, 12.

- Hanssen, F. (2000). The block booking of films re-examined. *Journal of Law and Economics*, 43: 395-426.
- Jones, M. and Pewsey, A. (2009). Sinh-Arcsinh distributions. *Biometrika*, 96: 761-780.
- Lee, Y. Nelder, J.A. and Pawitan, Y. (2006). *Generalized Linear Models with Random Effects*. Chapman and Hall, Boca Raton.
- Mandelbrot, B. (1963). New Methods in Statistical Economics. *The Journal of Political Economy*, 71: 421-440.
- Mandelbrot, B. (1997). *Fractals and Scaling in Finance: Discontinuity, Concentration, Risk*. Springer, New York.
- McDonald, J. B. and Xu, Y. J. (1995). A generalisation of the beta distribution with applications. *Journal of Econometrics*, 66: 133-152.
- Moretti, E. (2010). Social Learning and Peer Effects in Consumption: Evidence from Movie Sales. *Review of Economic Studies*.
- Nelson, D. B. (1991). Conditional heteroskedasticity in asset returns: a new approach. *Econometrica*, 59: 347-370.
- Rigby, R. A. and Stasinopoulos, D. M. (2004). Smooth centile curves for skew and kurtotic data modelled using the Box-Cox Power Exponential distribution. *Statistics in Medicine*, 23: 3053-3076.
- Rigby, R. A. and Stasinopoulos, D. M. (2005). Generalized additive models for location, scale and shape, (with discussion). *Appl. Statist.*, 54: 507-554.
- Sedgwick, J. and Pokorny, M. (2005). The film business in the U.S. and Britain during the 1930s. *Economic History Review*, 58: 79-112.
- van Buuren, S. and Fredriks, M. (2001). Worm plot: a simple diagnostic device for modelling growth reference curves. *Statistics in Medicine*, 20: 1259-1277.
- Vogel, H. (2007). *Entertainment Industry Economics*. Cambridge University Press, Cambridge, UK, 7 edition.
- Walls, W. D. (1997). Increasing returns to information: Evidence from the Hong Kong movie market. *Applied Economics Letters*., 4: 187-190.
- Walls, W. D. (2005). Modelling heavy tails and skewness in film returns. *Applied Financial Economics*., 15: 1181-1188.

# TOURISM MARKETING AND TOURISM DESTINATION IMAGE: AN APPROACH TO A CONCEPTUAL FRAMEWORK

OURANIA VITOUHADITI\*

## Abstract

Destination image is of major importance in tourism and is considered a vital concept of tourism marketing. The main typology concerning the formation of the image refers to the secondary or naïve (which forms prior to the visit) and to the primary or reevaluated (which forms after the visit). Although this term is widely used in empirical studies, there is a consensus that the issue lacks a theoretical basis. The image variable seems to affect tourism marketing as a whole. Therefore, an attempt to incorporate the image into the main body of tourism marketing theory with a focus on marketing mix, appears imperative. The aim is to attempt this incorporation, in order to prove the inextricable link of the image with tourism marketing, to contribute towards a conceptual framework and to reveal actions for strategies.

*JEL Classification: M31, M37, R11*

*Keywords: Image, Tourism destination image, image typologies, secondary or naïve, primary or reevaluated, tourism marketing, marketing mix*

## 1. Introduction

Nowadays, the tourist-consumer has become more complex and more demanding concerning his/her choices. He/she is a consumer with travel experience, higher educational level and environmentally aware. As a consequence, is a consumer with increased needs. At the same time several tourism destinations are mature markets with a slow rate of development offering a product with similar characteristics and enduring intense competition from other traditional and evolving tourism destinations. These needs and situation have an impact to the content of the tourism marketing. Specifically, they create a need to enrich the contents and variables of tourism marketing.

Concerning the enrichment of tourism marketing, Hyounggon and

---

\* Lecturer, Greece, Faculty of Management and Economics, Department of Business Administration: Tourism and Hospitality Management, Technological Educational Institution of Athens, e-mail: ranivito@hol.gr

Richardson (2003) supported that image has been raised as a vital concept of tourism marketing. It affects attitudes and behaviors which are connected to tourism, in several ways, e.g. reassuring the existent, creating new ones and in the process changing them.

Moreover, several scholars (Baloglou and Brinberg, 1997, Beerli and Martin, 2004, Chacko, 1997, Chon, 1991, 1992, Vitouladiti, 2012) claim that the most important criterion for the destination choice is its image. Crompton (1979) argues that the tourism destination image is a very important aspect of the successful marketing as well as of tourism development. Other researchers correlate the importance of tourism image and its realistic planning with the successful development of a tourism destination (Chen and Kerstetter, 1999, Crompton, 1979, Dadgostar and Isotalo, 1992, Hunt, 1975).

Also, other researchers attribute its importance to the impact it has on issues of supply and specifically on the marketing variables which concern promotion and product positioning (Baloglu and Brinberg, 1997, Baloglu and McCleary, 1999, Calantone et al, 1989, Chen and Kerstetter, 1999, Walmsley and Young, 1998).

Additionally, others attribute its importance to the impact it has on issues of demand and especially on marketing matters related to consumer behavior and the decision making process (Alhemoud and Armstrong, 1996, Baloglu and Brinberg, 1997, Chen and Hsu, 2000, Chen and Kerstetter, 1999, Crompton, 1979, Dadgostar and Isotalo, 1992, Dann, 1996, Fakeye and Crompton, 1991, Gartner, 1993, Goodrich, 1978, Hunt, 1975, Kamenidou et al, 2009, Mac Kay and Fesenmaier 2000, Mayo 1973, Mayo and Jarvis 1981, Styliadis et al, 2008, Tapachai and Waryszak, 2000, Walmsley and Young, 1998).

Also several researchers have studied tourism destination image as an independent variable and others as a dependent variable (Tasci and Gartner, 2007). Actually, the majority of researchers have concentrated on its impact on consumer buying behavior (Alhemoud and Armstrong, 1996, Baloglu and Brinberg, 1997, Chen and Hsu, 2000, Chen and Kerstetter, 1999, Christou, 2002, Crompton, 1979, Dadgostar and Isotalo, 1995, Dann, 1996, Fakeye and Crompton, 1991, Gartner, 1993, Goodrich, 1978, Hunt, 1975, MacKay and Fesenmaier, 2000, Mayo, 1973, Mayo and Jarvis, 1981, Mohsin, 2004, Shin, 2008, Tapachai and Waryszak, 2000, Walmsley and Young, 1998, Yoon and Uysal, 2005, Yuan and Jang, 2008). While, fewer researchers have underlined its impact on positioning and promotion (Baloglu and Brinberg, 1997, Baloglu and McCleary, 1999, Calantone et al, 1989, Chen and Kerstetter, 1999, Govers and Kumar, 2007, Walmsley and Young, 1998). And can be concluded that, independently of the approach, image is considered as a vital marketing

concept in the tourism industry and it is linked to the success of a tourism destination.

There are several definitions of tourism destination image, some of them are the following: Crompton (1979) defines it as “the sum of beliefs, ideas and impressions that a person has of a destination”, while Hunt (1975) defines it “as the impressions that a person holds about a region in which he or she does not reside”. Furthermore, Milman and Pizam (1995, p.21) describe destination image as ‘the visual or mental impression of a place or a product experienced by the general public’. Echtner and Ritchie (1991) propose that ‘image is not only the individual traits or qualities but also the total impression an entity makes on the minds of others’.

In general, the term ‘image’ refers to a compilation of beliefs, and impressions based on information processing from a variety of sources over time, resulting in an internal accepted mental construct (Crompton, 1979, Gartner, 1993). The majority of the authors describe destination image as a total of impressions, beliefs, prejudices, ideas, expectations, and feelings accumulated towards a place over time.

The image concept has generally been considered as an attitudinal construct consisting of an individual’s mental representation of knowledge (beliefs), feelings, and global impression about an object or destination (Baloglu, 2001).

There are also, many typologies concerning the formation of the image, Gartner’s (1993) is one of the most important and suggests that images are formed throughout a continuum of eight stages that proceed from induced to organic agents, as following:

- Overt Induced I – traditional forms of advertising generated by the marketing entity
- Overt Induced II – information generated from sources with a vested interest in the marketing outcome, such as agents or intermediaries
- Covert Induced I – information provided by a paid sponsor endorsed by a known identity or expert, with the aim of increasing the credibility of the advertising claim
- Covert Induced II – information influenced by the marketing organization which appears to the recipient to be an independent and unbiased source
- Autonomous – genuinely independent information sources such as news reports and documentaries
- Unsolicited Organic – Word Of Mouth information generated by individuals who have either visited the destination or who claim an understanding of the destination’s attributes

- Requested Organic – Word Of Mouth information information sought by the traveler from a credible source
- Organic – information gained from actual experience with the destination

This is basically the image perceived before experiencing the destination, which is called secondary or naïve image according to Phelps' approach (1986). In contrast, the primary or reevaluated image is formed by actually visiting the destination. It is believed that the actual visit creates an image more realistic than that existing prior to visitation (Tasci and Gartner, 2007). The secondary sources of information play a very significant role in forming the naïve image of the alternative destinations to be considered in the final choice. Simultaneously, this kind of image represents its static element, since it is already shaped because it has been based on several information agents. The primary or reevaluated image is considered as the most dynamic kind because it incorporates the experience itself.

Although it is proved that an increased interest exists on this issue there is a consensus that the majority of the approaches is insufficient concerning a theoretical basis, an element that leads to a lack of a strong conceptual approach. Additionally, there is a consensus that although this term is widely used in empirical studies and is the cornerstone of the tourism research it is devoid of a theoretical structure (Fakeye and Crompton, 1991, Mazanec and Schweiger, 1981, Echtner and Ritchie, 1993, Gartner, 1996, Young, 1999).

Indeed, a careful study of the literature reveals that, as indicated above, the focus of the theory concerns mostly the relation of the image with issues of tourism behavior and promotion. However, this variable seems to affect all the basic variables of tourism marketing. Therefore, the correlation and incorporation of the image as a term into the body of the tourism marketing theory is imperative.

In order to incorporate the tourism destination image in the existing and universally accepted theoretical framework of tourism marketing, an approach will be developed based, firstly, on previous literature review and, secondly, on drawing comments, correlations and conclusions. The objectives of the study are:

- To offer a better understanding of the typologies of tourism destination image and their importance, focusing mostly on the secondary or naïve image and the primary or reevaluated
- To underline the inextricable link of the image with tourism marketing
- To contribute to the dialogue on the need of an integrated holistic approach

- To contribute to the enrichment of the scientific theory of tourism marketing
- To offer the basis for a conceptual framework, which will help extend the theory on the subject

## **2. Tourism Marketing Mix and Tourism Destination Image**

The tourism marketing mix, as it is known, consists of the following elements: product, price, distribution, promotion and people. The marketing mix with its variables is the basis of National and Regional Tourism Marketing business plans and is therefore the means to implement the scientific theory of marketing.

Doswell (2002) supports that the destination image, due to its significance, should be included in the marketing mix as a further element. He specifically mentions (p. 62) that: "The image is an important factor in tourism, because of that it must be recorded separately. The mix includes the image, which is classified separately from the elements of product and promotion, but it is affected by them. Essentially, the image is the way people see the product, what it represents and what it means for them."

Indeed, not only does Doswell (2002) include the image as another variable in the marketing mix, but also introduces the element of interaction with the other components of the mix. Based on this statement and its references in international scientific literature, an attempt to correlate the image with all elements of the mix will be presented below.

## **3. Tourism product and tourism destination image**

The concept of tourism product, due to its composite nature, can be approached from different perspectives. The viewpoint from which a tourist sees the product could be identified as the whole travel experience, from the moment of departure until the time of return to their permanent residence.

To the above mentioned viewpoint, Languar (1981, p.19-20) adds also the image as an element of the tourism product and comments that "the image is an important element of Tourism Marketing, and should be included in the elements of tourism product. This represents the mental image shaped by the potential tourist for the tourism product prior to the trip, using different sources of information (e.g. travel agents, friends and acquaintances). This image is influenced by all elements of the tourism product and has a major impact on destination choice. "

It must be noticed that the tourism product is a complex entity and therefore

influenced by a variety of external positive and negative influences (Varvaresos and Soteriades, 2011), a fact that underlines the importance of handling effectively the variable of image.

Middleton (1979) argues that the way a tourist perceives the tourism product is affected by the motives and the image formed on the product in a given time. He even concludes in a later book of his (1988), that the image is a key element of the tourism product. In particular, he classifies the elements into five main groups:

- a. the attractions of the destination
- b. facilities and services of the destination
- c. the accessibility to the destination
- d. the image and perceptions of consumers about the destination
- e. price

Hunt (1975) has long argued that it is possible for the images, as perceived by the tourist market, to contribute to the successful tourism development of a region more than the resources and the particular characteristics of the tourism product.

He continues by saying that researchers in marketing have always concluded that tourists-consumers often buy products and services based on both their image and existing features. Aaron Spector (in Hunt, 1975) notes that consumers buy branded products, not only for their given characteristics, but also due to a trend, bias or predisposition towards the product or service. In other words, not so much for what the product can offer them in terms of performance, but rather for what it signifies to them.

The tourism product, as already said, is considered to be an experience. Based on this concept Govers, Go and Kumar (2007) argued that in terms of products-experiences, such as tourism and travel, consumers engage in a continuous search for information. Through the collection of all such information the consumer creates an image or “mental model” that represents the travel experience. Given that the tourism product and services are not tangible (the tourism literature identifies them as intangible experience), the images become more important than reality itself, and the image projected, by the sources of information, will completely affect the perception of the potential customer about the characteristics and values of the tourism product. It appears that, the identification of the tourism product with the acquired experience as well as with the continuous search for information reveals its very close relationship to the primary and the secondary image.

In conclusion, therefore, the image is regarded by the international scientific literature, over time, not only as another variable of the marketing mix, but

also as a powerful influence on the perception shaped by the potential or actual tourist for the product and on the decision to purchase the specific product. This effect is apparently so strong that some scholars consider the image to be an integral part of the product itself (Tellisman Kosuta, 1989).

#### **4. Tourism destination and image**

The tourism product is determined always by a destination (Jeffries 1971, Middleton 1988, Jafari 1989, Roth 1995). Medlik and Middleton (1973) comment that every tourist travels somewhere to do something. Therefore, there is no tourism product without its destination. Tourists travel to visit a destination which is the reason for the existence (*raison d'être*) of tourism and travel.

Middleton (1988) and Jeffries (1971) argue that in a developed tourism destination, coexist, many products, aimed at different segments (target markets) of the market. According to Mill and Morrison (1992) the tourism destination is part of the tourism system and includes: attractions, services, infrastructure-facilities, transportation-accessibility, and hospitality. These variables are interdependent since all help to produce a satisfying vacation experience.

According to the sociological approach of the destination, emphasis is given on the types of tourists attracted by individual tourism destinations and how they, in turn, through evolving relationships enhance or alter the image of the destination (Framke, 2002). Moreover, the decision made by tourists-consumers on destination choice is shaped by a number of interacting factors, one of which is its image. (Selby and Morgan, 1996). Many scholars have attempted to define the meaning of the image of a tourism destination.

Crompton (1979, p. 18-23) defined the image of a destination as "the sum of all the emotional and aesthetic features such as ideas, perceptions, experiences, impressions and beliefs that people have with objects, behaviors and events associated with the destination." Mayo (1973) refers to images considering them simplified impressions of the occasional organization of different stimuli received by people in their daily lives. In research conducted on the image of the regions and how this affects travel behavior, he concluded that the images which the potential tourists-consumers have for a tourism destination, are the main trigger for selection of the site, regardless of whether the image displayed on this reflects reality or just a myth or a "narrative" of Marketing and incumbent views.

The images displayed by the tourism destinations consist, according to Gartner (2001), of three interdependent components: a) the cognitive element which includes the assessment of the characteristics of the tourism destination

b) the affective element related to a group of motives which we are trying to associate the destination with, and c) the conative element where the effort focuses on the link to the previous two items. All these together will form the process of making the purchase decision.

Consequently, the emerging image of a region or country to the consciousness of the consumers is of paramount importance to their choice. This is reinforced by the very nature of the tourism product, which excludes a previous trial by the potential tourist-consumer. The evaluation, therefore, of a destination and the comparison to other competitive ones is eventually determined and reinforced by its image.

An image which, in this case demonstrates the power of the primary and the secondary image, since even in the absence of experience, the image shaped in the mind of the potential tourist is the one that will determine the assessment of the destination, not only in relation to its own characteristics but also compared to other competitive destinations.

## **5. Differentiation - Positioning and tourism destination image**

When competitive destinations appear to offer the same product, the organizations responsible must communicate in an effective manner the existing differences to the prospective tourists. Kotler (2000) defines differentiation as the act of designing a set of reasonable differences seeking to distinguish the supply of a destination from the offerings of competitive ones. According to Kotler (2000), the concept of positioning involves the design of the supply of the destination in a way that it obtains a unique and valuable place in the minds of customers, and requires to decide what differences will be promoted. According to Ries and Trout (1982), positioning is not what someone does to a product. Positioning is what someone does in the mind of a prospective consumer.

Runyan (2006), essentially extending this concept, associates directly the positioning with the image. Specifically, he states that the positioning is ultimately a message that is intended to communicate the image of a brand and/or a destination. While Kelly and Nankervis (2001) also correlate the positioning to the image, they argue that the positioning is the process through which a manager encourages a positive image of products and services in the minds of the targeted customers.

Through this image the marketers must seek to establish certain characteristics. They have to carry a unique message that introduces the main qualifications and position of the product. They must carry this message in a unique

way, so as for it not to be confused with other similar competition messages. The message must possess emotional power to intrigue both the heart and the mind of the buyer.

Creating a strong image in terms of positioning requires ingenuity and hard work. The image cannot be implanted in the minds of the public overnight, or grown only from the media. The image has to be transferred by any communication means at the disposal of each organization and the transfer has to be done repeatedly (Kotler, 1991).

Marketing managers are entrusted with the responsibility of selecting those elements, which will contribute to forming an image that will not conflict with what the visitors will experience. This is because the perceived satisfaction of the tourists, in relation to the destination, is the result of the comparison between their expectations and what they will experience in reality. As already known, the image of a tourism destination bears expectations (Selwyn, 2000).

At this point it should be noted that the types of images projected for a region are able to steer the development process, since the latter is the result of the interaction between supply and demand (Pike, 2002).

According to a valid opinion, the starting point for the development of a marketing plan should not be the opinions of marketers about what can the destination offer, but rather the recognition and use of those elements that can be imprinted in the mind and soul of the potential consumers (Mykletun, Crotts and Mykletun, 2001).

As has rightly been observed by Ries and Trout (1982), efforts to change opinion in today's society, characterized by saturation in the offer of information, is a very difficult task. It is much easier to work with what you already have. Recognizing the strong and weak points, activating or improving them respectively, in the minds of the consumers, is something cheaper and much more effective.

Another issue of particular importance is the selection of the appropriate number of differences that will be used. Some authors believe in promoting a difference and remain consistent to it, while others believe that we can promote more differences than one, according to the occasion. In any case, the choices made should lead to a clear image. The ability to transfer a clear image to potential visitors, through the design and the message of the positioning, will lead to a strong brand identity.

All the above imply that the procedure to be followed is the marketing research as the only possibility of collection, process, analysis and interpretation of data and identification of differences worth highlighting in connection to the selection of the appropriate target market.

Differences that might be indicated from the target market as the display of the primary image. Differences that could form the basis for the projection of the secondary image in various means of promotion and advertising, which the prospective visitors will use as a source of information.

According to Kotler (2000) a difference must abide to the following in order to be worthwhile focusing our attention and spending our money on it:

- Important: the difference gives a valuable advantage to many buyers.
- Special: the difference is either not provided by others, or an entity provides it with a special way.
- Superior: the difference is superior compared to other ways of achieving the same advantage.
- Distinct: the difference can be spotted and recognized by buyers.
- Difficult to replicate: competitors cannot copy it easily.
- Within the financial means: buyers can afford it.
- Efficient: the establishment of the difference is profitable for the company / institution.

## **6. Tourism package and tourism destination image**

The tourism product, as has already been mentioned, is determined by a destination.

The destination is "offered" and "bought" in the form of a package tour, which can, in its simplest form contain the air transportation and accommodation, while in the more complex form can contain all of its components (air transportation, accommodation, transfers, meals, prepaid tours, optional tours, leader or escort). Package tours involving competing destinations and even those close to maturity or saturation stage are usually easily substitutable to each other, because they have mainly similar characteristics and prices.

Based on the classification of the image (Gartner 2001), the content of the secondary or naive image (meaning the one developed prior to the visit through the different information sources) and primary (meaning the one formatted after the visit and the acquisition of experience), is known. It can therefore, be readily understood that initially the secondary (naive) image displayed, should be especially strong in order for the destination to stand out among other similar competing ones.

During their stay at the destination, the tourists 'consume' as a total experience the components of the package purchased, often without realizing that each element of the package is produced and controlled by individual

independent companies, each with a different series of operational advantages and disadvantages (Buhalis, 2000). The overall experience they will reap, will mold then the primary (for them) image which, in turn, they will transfer to relatives and friends in the form of unsolicited or requested organic or word of mouth publicity and will influence future tourists in their selection, converted again into a secondary/naive image.

It is hence readily understood not only the importance of all forms of image, with emphasis on the elements of the primary one in relation to package tours, but also the difficulties of its desired formulation by a destination (because of uncontrolled variables created by the existence of many intermediaries).

The tourists-consumers buy travel packages from tour operators and travel agencies. These companies have their own corporate image. This image, in turn, affects the purchase decisions of potential tourists-consumers. It is a factor that will affect the selection both of the package tour and the distribution channel that will design, advertise and sell it.

From the above mentioned, results that there is a composite correlation of the image with the package tour, its destination, and the process of purchase decision. This correlation requires an especially rational design of marketing programs and the approach of potential tourists, not only from the part of the destination and the facilities it offers, but also from independent travel companies.

## **7. Pricing and tourism destination image**

Price is one of the key variables of tourism marketing strategy. Manipulating the price along with the image and promotional messages can boost sales even when approaching a new target market. On the contrary, an unequal relationship between price-quality and image can turn the target markets towards competitors.

As supported by Campo and Yague, (2008) and Doswell (2002), the price must be competitive and consistent with the image. The image defines the relationship between the specific price/value. The destinations are usually integrated into price categories, and this means that the price becomes part of the image.

Doswell continues by suggesting that the published prices are the most important element in marketing. People ask 'how much it will cost?', 'Is it a reasonable price or worthy for the given destination?', 'Does it actually respond to the image?' or 'the price competitive?'. Above all, price is responsible for

the position of a destination in the market. The price can support the image, but it may as well reduce it.

The price to be paid by tourists for a package tour, for their visit to a destination, and generally for a tourism product is dependent and influenced by a number of factors. These factors are mainly the tourism product life cycle stage, the degree of impact of tour operators and tourism agencies in the pricing of the product, the rate of profit the operators seek to reap of the destination and the exchange rates.

The result to emerge is the final price of a trip. It is important that this price is perceived by the consumers-tourists as fair, reasonable and worthy of the experience to be gained. Dissatisfaction will damage the image of the destination, and therefore its competitiveness. Instead satisfaction will reinforce the image of the destination.

The promotion of an image built on the elements that would comprise an objective and positive one, would contribute towards the satisfaction of tourists-consumers buying the product, and the responsiveness of the product to its alleged features. That image would be the result of the positive or negative actual customer's reviews and recommendations for the improvement of services offered and as a consequence a more positive evaluation of the experience. Such an image policy would especially help towards the ability to raise prices without fear of reactions of the customers.

At this point it is worth mentioning the pricing method based on reputation and strong destination image, as well as their impact on the demand curve. Where the increase in the price from  $P_1$  to  $P_2$  also creates an increase in demand (e.g. number of package tours sold) from  $Q_1$  to  $Q_2$ , which (always according to this pricing method), contradicts the generally accepted assumptions in current economic standards, and therefore deserves to be highlighted. This approach requires firstly the positioning of the product and the choice of target market.

This pricing method uses reputation and strong brand name, as a basis for several characteristics, e.g. level of services offered, etc. The association, from the part of the prospective tourist-consumer, of the positive characteristics of tourist attractions (leading to a strong destination image), to the elevated price required for the respective purchase, leads to a demand curve different in shape and trend from the classical approach. Specifically, the increase in the selling price does not adversely affect the demand. On the contrary, strong image and positive reputation can justify the expensive price, which functions as an underline for the quality of service and an incentive for buying it.

In conclusion, those in charge of the marketing strategy should calculate

the product cost, estimate the expected volume of sales, calculate the price and consider whether the profit levels are desirable and contribute to achieving the goals.

## **8. Distribution channels, tour operators, travel agents and tourism destination image**

Despite the fact that the image of a destination, of a package tour and of various tourism products is influenced by several factors, tour operators and travel agencies have been most important information sources and channels, which have a major impact on the image and the decisions of travelers (Woodside and Lysonski 1989, Goodall 1990, Gartner 1993). Tour operators and travel agencies heavily influence the tourism marketing activities and services offered. As claimed by Lawton and Page (1997) and Bosque et al (2005), the travel companies are opinion leaders for their customers, therefore the images and their knowledge of tourism packages, destinations and services offered are of prime importance in making the purchase decision.

Therefore, in the destination selection process, tour operators and travel agents play a double role as distribution channels and image creators. They present new definitions of the destination tourist product for their consumers, rather than presenting the tourist product according to consumers' perceived images (Reimer, 1990, in Jalil 2010). The image has been shown to play a decisive role in the behavior of the tourist-consumer, even in making the purchase decision and the destination choice (Gunn 1972, Gartner 1993, Goodrich 1978, Woodside and Lysonki 1989, Um and Crompton, 1990). The contribution of these businesses, therefore, to the formation of the image, on which the final purchase decision will be based (McLellan and Foushee 1983), is undeniable and should be considered in the design of the tourism product.

It is important, therefore, to create a reinforcing image for the destination, an image that has the potential to diversify the tourism supply from the competition and create positioning opportunities within the tourist market. In other words, an image that will have the advantages of the primary and will act as an effective promotional tool designed to create a brand name and identity for the destination. The ability to create such an image could give the destination's stakeholders the opportunity to approach other more specialized tour operators (specialists), handling higher quality tourism, and achieve up to a point, of course, the disengagement from those of mass tourism.

Planning and organizing package tours by the tour operators requires an in-depth knowledge of social and cultural characteristics of target markets,

and therefore knowledge of the main characteristics of consumer behavior. Specifically, Zacharatos (2000, p. 139-140) states that "the tour operator is required to encode the knowledge of consumer behavior of the prospective tourist, in such a way that it becomes a tool for choosing the right components of the package."

As already mentioned, an important factor of influencing the consumer behavior, the selection of destination, and the tourism package is the image formed by the potential tourist. It can, therefore, be readily understood that the knowledge of the image (formed in the mind of the potential visitor) is very important to the travel business that designs a tourism product. This knowledge will give the necessary guidelines for the rational design of the product, especially when the travel business is able to know the elements of the primary and objective image of a destination.

Adding to the above, Middleton (2001), notes that tourists who are first-time buyers of a package, e.g. an exotic destination, will probably find that every aspect of their travel is affected by the marketing decisions of the tour operator they have chosen. The tour operator, in turn, has chosen the destinations to include in the brochure as well as the messages and images that communicate the attractions of these destinations.

This same advertising brochure, in the way it is designed, as a printed product, with its analytical content, is an important tool among others (advertising in the press, on radio or television) for the promotion and success of the package tour and the destinations it includes. It is also an image tool as mentioned in relevant texts. In addition, the brochure is the induced part of the image, according to the approach of Gunn (1972).

Moreover, even a tour operator company or travel agency through the quality of service offered, its reputation in the market, its position relative to the competition, creates its own corporate image, both among the consumers and among similar companies and associates. This image will, in turn, play its role for this business to be chosen by potential customers or partners, who may associate that corporate image with the tourism products it designs and promotes to the market.

The image, in this particular case, seems to be multidimensional. It involves the management of the destination image, the image that the travel company wants to give to the products it designs, and also the image held by the company itself in the customer and business market. It involves both the content of the secondary image and the advantages of the primary image, to contribute to a strategy designed by regional tourism development managers and also tourism businesses, which deal with planning package tours and products.

## **9. Promotion and tourism destination image. Public relations, advertising and brochures**

Morgan and Pritchard (1998), argue that despite the fact that the image in tourism covers a broad range of activities and factors, its role reflects the nature and purpose of promotion itself. Promotion aims to influence the attitudes and behavior of potential tourists and consumers in three ways: a) to confirm and reinforce beliefs and behaviors, b) to create new moods and behaviors, c) to change moods and behaviors. Thus, tour operators use the image to describe their products in brochures, posters and media advertisements. The airlines, hotels and resorts also operate in the same way. Even destinations try to create an image that will integrate them in the consideration set of the potential client, which in turn leads to the buying decision. Kokosalakis et al. (2006 in Jalil, 2010) assert that destination marketers should promote destination images distinctively enough to achieve competitive advantage and that they should direct the image marketing campaigns not only at potential tourists but also at residents.

The design of the promotional mix contains a message whose content relates to the creation of images in the mind and the perception of the receiver, while illustrations are used to communicate the various messages about regions and products. According to Morgan and Pritchard (1998), the image and promotion are so inextricably linked, that we can use these terms in correlation and talk about image promotion.

As far as the elements of the marketing mix are concerned (advertising, sales, public relations, publicity, sales promotion, etc.), they are characterized as "image tools". These statements are undeniable. Two distinctive references are enough to show the connection of concepts and the importance of the use of primary and secondary image for effective implementation of communication policy programs.

Simply by citing the definition of the British Institute of Public Relations, which defines public relations as the systematic, planned, sustained and consistent effort to establish and maintain relations of mutual understanding and goodwill among an organized group (or individual) and its audience, results that the image is a communication mode by which the management, studies, suggests and arranges the appropriate solution for a range of issues that have ramifications in a society or affect the image held by the public.

Indeed, as Koutoupis claims (1992, p. 34) "the image is the object Public Relations are dealing with. Their goal: to build and sustain the best image possible for that organization, anticipating problems and creating opportunities.

An image, however, that will be supported by reality and will respond to the true form of every business. An image that will prepare the ground for faster, more comfortable and higher gains for each organization. The creation, development, protection, and management of this image constitute the role of Public Relations or, as Anglo-Saxons say 'Public Relations is the management of the image'".

As Lytras (2008) underlines, concerning new tourism destinations, public relations is the means for the potential consumer to assimilate their image. A necessity for the future development of these destinations. In the fragile and competitive environment that tourism destinations face, Lytras (2008) argues that public relations are a vital instrument for the establishment of a positive image of the destination, consumer based on trust, clarity and honesty.

With regard to advertising, an "application definition" (Pavlidis 2001) supports that advertising is the conscious planning and deliberate influence of the people by using advertising media, which aims to make them purchasers of materials and services of our supply, so that, ultimately, in this way to succeed in changing their behavior. Pavlidis (2001) continues, that in order for people to be positively influenced and respond to our supply, the advertisement must meet the following three basic conditions:

- To provide information about the tourism product or "package".
- To affect buyers' desires in such a way that it changes them to the benefit of the advertised service or agency.
- To use creative arguments capable of creating preferences in favor of the advertised destination.
- He continues by stating that the information, the influences and the arguments of advertisement are displayed through the image and the writing.

It is apparent not only the identification with the image, but also the benefits that would arise, if these functions could be built on and project the improvements of the product. Especially when these improvements are indicated by the target markets themselves, meaning features that can be identified through the study of the primary image.

Gunn, even since 1972, having recognized the strong correlation between the image and various sources of information for tourists and the consumer, proceeded to the known classifications of the image, namely:

a) an organic image, the image obtained as a result of our exposure to a set of non-tourist information derived from newspapers, magazines, television,

books, magazines, geography magazines, recommendations of friends and relatives,

b) induced, projected image, emerging from a deliberate effort to promote the destinations and their products and services by tour agencies and operators, through commercial sources of information such as advertisements and magazines.

In conclusion these same classifications of the image are simultaneously the means of public relations, advertising, publicity and in general communication and promotion.

Despite the development of electronic information sources for tourism activities, public authorities in charge of tourism development and mega tour operators still allocate enormous sums to the production of brochures (Seguillinas and Capella-Cervera, 2006, in Jalil, 2010). It is argued that potential tourists compare tourist brochures then make their choice for a preferred destination (Molina and Esteban, 2006, in Jalil, 2010). Potential tourists use an affective choice mode for expressing destination attributes, such as the pictures in brochures, and an information-processing mode to evaluate attributes, such the price and the quality of tourist facilities (Goossens, 1994 in Jalil, 2010). Tain-Cole and Crompton (2003, in Jalil, 2010) assert that tourism brochures should meet three main objectives and influence: image formation; destination choice; satisfaction.

In the course of this article an attempt was made to incorporate the two basic typologies of tourism destination image into the theoretical context of tourism marketing with emphasis on the variables of marketing mix. This effort could be considered a contribution to the enrichment of the tourism marketing theory and as a basis towards the creation of a conceptual framework for tourism marketing and tourism destination image.

## **10. Conclusions and implications for further research**

All the above show the breadth and dynamic of the destination image typologies in relation to tourism marketing, with a special reference to the primary and reevaluated image, which is raised as the basis for an effective implementation of tourism marketing and its strategies and a variable which interacts with all the marketing components.

As a consequence, the above approach not only proves the relation between tourism marketing and tourism destination image, but also proves the possible incorporation of the concept into the theoretical background of modern tourism marketing and indicates the need for scientific research. Research that

will focus on a comparison between the secondary and primary image in order to underline the characteristics of the primary. These characteristics seem to be the most dynamic aspect, having great effect on the functions of tourism marketing, since they reveal the deviations from the expectations and as a consequence indicate the priorities for action. Additionally, they serve as a guide to the marketing managers in order to plan regional development, implement promotional and advertising campaigns.

## References

- Alhemoud, A. and Armstrong, E., (1996). "Image of tourism attractions in Kuwait". *Journal of Travel Research*, 34 (Spring): 76–80.
- Baloglu, S. (2001). "Image Variations of Turkey by Familiarity Index: Informational and Experiential Dimensions." *Tourism Management*, 22: 127–133.
- Baloglu, S. and Brinberg, D., (1997). "Affective images of tourism destinations". *Journal of Travel Research* 35 (4): 11–15.
- Baloglu, S., and McCleary, K. W., (1999). "A Model of Destination Image Formation". *Annals of Tourism Research* 26:868–897.
- Berli, A. and Martin, J., (2004). "Factors influencing destination image". *Annals of Tourism Research*, 31(3): 657-681
- Bosque, I.A.R., Martin, H.S. and Collado, J., (2005). "The role of expectations in the consumer satisfaction formation process: Empirical evidence in the travel agency factor". *Tourism Marketing*
- Buhalis, D., (2000). "Marketing the competitive destination of the future". *Tourism management*, 21: 97-116.
- Calantone, R.J. and Mazanec, J.A., (1991). "Marketing management and tourism". *Annals of Tourism Research* 18(1): 101–119.
- Campo, S. and Yague, M.J. (2008). "Tourist Loyalty to Tour Operator: effects of Price Promotions and Tourist Effort". *Journal of Travel Research*. 46: 318-326
- Chacko, H.E., (1997). "Positioning a tourism destination to gain a competitive edge". *Asia Pacific Journal of Tourism Research* 1(2): 69–75.
- Chen, J. S., and Hsu, C. H. C., (2000). "Measurement of Korean Tourists' Perceived Images of Overseas Destinations". *Journal of Travel Research*, 38 (May): 411–416.
- Chen, P. J., and Kerstetter, D. L. (1999). "International Students' Image of Rural Pennsylvania as a Travel Destination". *Journal of Travel Research*, 37 (February): 256–266.

- Chon, K.S., (1991). "Tourism destination image modification process: Marketing implications". *Tourism Management* 12(1): 68–72.
- Chon, K-S, (1992). "The Role of Destination Image in Tourism: An Extension". *Revue du Tourisme* 1:2–8.
- Christou, Ev., (2002). "Examining the impact of Tourist Destination Image and Reputation on Visitor Loyalty Likelihood". *Tourism Today*, 2: 42-61.
- Crompton, J. L., (1979). "An Assessment of the Image of Mexico as a Vacation Destination and the Influence of Geographical Location upon the Image". *Journal of Travel Research* 18(4):18–23.
- Dadgostar, B. and Isotalo, R. M., (1992). "Factors Affecting Time Spent by Near-Home Tourists in City Destinations". *Journal of Travel Research*, 30 (Fall): 34–39.
- Dadgostar, B., and Isotalo, R. M., (1995). "Content of City Destination Image for Near-Home Tourists". *Journal of Hospitality and Leisure Marketing* 3(2):25–34.
- Dann, G. M. S., (1996). "Tourists Images of a Destination: An Alternative Analysis". *Journal of Travel and Tourism Marketing* 5(1/2):41–55.
- Doswell, R. (2002), «Tourism. The role of effective management». Athens: Kritiki Publishing
- Echtner, C. M. and Ritchie, J. R. B., (2003). "The Meaning and Measurement of Destination Image". *Journal of Tourism Studies*, 14(1): 37-48.
- Echtner, C. M., and Ritchie, J. R. B., (1993). "The Measurement of Destination Image: An Empirical Assessment". *Journal of Travel Research* 31(4):3–13.
- Fakeye, P. C., and Crompton, J. L., (1991). "Image Differences Between Prospective, First-Time, and Repeat Visitors to the Lower Rio Grande Valley". *Journal of Travel Research* 30(2):10–16.
- Framke, V., (2002). "Destination as a Concept". *Scandinavian Journal of Hospitality and Tourism*, 2(2)
- Gartner, W. C., (1993). "Image Formation Process". *Journal of Travel and Tourism Marketing* 2(2/3):191–215.
- Gartner, W. C., (1996). "Tourism Development: Principles, Policies, and Policies". New York: Van Nostram Reinhold.
- Gartner, W. C., (2001). *Tourism Development: Principles, Policies, and Policies*. New York: Van Nostram Reinhold.
- Goodall, B., (1990). "How tourists choose their holidays: An analytical framework". In: Goodall, B. and Ashworth, G., Editors, (1990). *Marketing in the tourism industry: The promotion of destination regions*, Routledge, London: 1–17.

- Goodrich, J. N., (1978). "The Relationship Between Preferences for and Perceptions of Vacation Destinations: Application of a Choice Model". *Journal of Travel Research*, 17(2): 8–13.
- Goodrich, J. N., (1978). "A New Approach to Image Analysis through Multi-dimensional Scaling". *Journal of Travel Research* 17(2):2–7.
- Govers, R., Go, F. and Kumar, K., (2007). "Promoting Tourism Destination Image". *Journal of Travel Research*, 46: 15-23
- Gunn, C., (1972). "Vacationscape: Designing tourist regions". Austin: Bureau of Business Research, University of Texas.
- Hunt, J. D., (1975). "Image as a Factor in Tourism Development". Cited in W. C. Gartner and J. D. Hunt (1987) *An Analysis of State Image Change over a Twelve-Year Period (1971–1983)*. *Journal of Travel Research* 13(3):15–19.
- Hyounggon, K., Richardson, S. L., (2003). "Motion Picture impacts on destination images". *Annals of Tourism Research*, 30(1): 216-237.
- Jafari, J., (1989). "Structure of Tourism". In: Witt, Stephen F. and Luiz Moutinho (eds.), "Tourism Marketing and Management Handbook". Hemel Hempstead: Prentice Hall
- Jalil, S., (2010). "Images of Egypt in United Kingdom Tour Operator's brochures". *Tourismos: An International Multidisciplinary Journal of Tourism*, 5(2), Autumn 2010, pp 179-191
- Jeffries, D.J., (1971). "Defining the Tourist Product - and its Importance in Tourism Marketing". *Revue de Tourisme* 1: 2-5
- Kamenidou, I., Mamalis, S., Priporas, C.V. (2009). "Measuring Destination Image and Consumer Choice Criteria: the case of Mykonos island". *Tourismos: An International Multidisciplinary Journal of Tourism*, 4(3), Spring 2009, pp 67-79
- Kelly, I. and Nankervis, T., (2001). *Visitor destinations*. Australia: John Wiley & Sons
- Kotler, P. (2000). *Marketing Management, The Millenium Edition*. Upper Saddle River, NJ: Prentice-Hall International
- Kotler, Ph., (1991). *Marketing Manegement: Analysis, Planning, Implementation, and Control*, (7th ed.) Englewood Cliffs, NJ: Prentice-Hall International Editions
- Koutoupis, Th.. (1992). *A practical guide of Public relations*. (3<sup>rd</sup> edition). Athens: Galeos Publishing
- Languar, R., (1981). *Le tourism international*. Paris: ed. P.U.F.
- Lawton, G. and Page, S., (1997). "Evaluating travel agents' provision of health advice to travelers". *Tourism Management* 18(2): 89–104.

- Lytras, P., (2008). *Public Relations and Communication in Tourism*. Athens, Interbooks Publishing.
- MacKay, K. and Fesenmaier, D., (2000). "An Exploration of Cross-Cultural Destination Image Assessment". *Journal of Travel Research*, 38(4): 417–423.
- Mayo, E. and Jarvis, L., (1981). *The Psychology of Leisure Travel*. Boston: CBI.
- Mayo, E., (1973). "Regional Images and Regional Travel Behaviour, Research for Changing Travel Patterns: Interpretation and Utilisation". *Proceedings of the Travel Research Association, fourth Annual Conference, Sun Valley, Idaho*: 211-218.
- Mazanec, J. and Schweiger, G., (1981). "Improved Marketing Efficiency through Multiproduct Brand Names? An Empirical Investigation of Image Transfer". *European Research*, 19: 32-44
- McLellan, R.W. and Foushee, K.D., (1983). "Negative images of the United States as expressed by tour operators from other countries". *Journal of Travel Research*, 22: 2-5
- Medlik, S. and Middleton, V.T.C., (1973). "The Tourist Product and its Marketing Implications". *International Tourism Quarterly*, 3. Reprinted in: Burkart, A.J. and Medlik S. (eds.) (1975), *The Management of Tourism*. London: Heinemann
- Middleton, V., (2001). *Marketing in Travel and Tourism*. Butterworth-Heinemann.
- Middleton, V.T.C., (1979). "Tourism Marketing and Product Implications". *International Tourism Quarterly*, 3: 36-46
- Middleton, V.T.C., (1988). *Marketing in Travel and Tourism*. Oxford: Heinemann Professional Publishing
- Mill, R. C., Morrison, A. M., (1992). *The tourism system*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Milman, A. and Pizam, A. (1995). "The role of awareness and familiarity with a destination: the Central Florida Case". *Journal of Travel Research*, Vol. 33, No.2, pp.21-27.
- Mohsin, A., (2004). "Tourist attitudes and destination marketing – the case of Australia's Northern Territory and Malaysia". *Tourism Management*, 25: 481-495
- Morgan, N. and Pritchard, A., (1998). *Tourism promotion and power: Creating images, creating identities*. Wiley, Chichester.
- Mykletun, R., Crotts, J. and Mykletun, A., (2001). "Positioning an island destination in the peripheral area of the Baltics: a flexible approach to market segmentation". *Journal of Tourism Management*, 22: 493-500

- Pavlidis, P., (2001). *Hotel Marketing*. Athens: Kalamas Publishing
- Pavlidis, P., (2001). «Tourism Advertising». TEI of Athens
- Phelps, A., (1986). “Holiday Destination Image: The problem of Assessment. An example developed in Menorca”. *Tourism Management*, 7(3): 168-180
- Pike, S., (2002). “Destination image analysis”. *Journal of Tourism Management*, 23: 541-549
- Ries, A. and Trout, J., (1982). *Positioning: The battle for your mind*. New York: Warner books
- Roth, M.S., (1995). “The effects of Culture and Socioeconomics on the Performance of Global Brand Image Strategics”. *Journal of Marketing Research*, 32(5): 163-175
- Runyan, R.C., (2006). “Tourist dependent small towns: Understanding competitive advantage”. *Journal of Vacation Marketing*, 12(4): 329-343
- Selby, M. and Morgan, N.J., (1996). “Reconstruing place image (a case study of its role in destination market research)”. *Tourism Management*, 17(4): 287-294.
- Selwyn, T., (2000). “The Tourist Image: Myths and Myth Making in Tourism”. Book reviews. *Journal of Tourism Analysis*, 5: 57-65
- Shin, Y. (2009). “Examining the Link between Visitors’ Motivations and Convention Destination Image”. *Tourismos: An International Multidisciplinary Journal of Tourism*, 4(2), Autumn 2009, pp 29-45
- Stylidis, D., Terzidou, M., Terzidis, K. (2008). “Islands and Destination Image: the case of Ios”. *Tourismos: An International Multidisciplinary Journal of Tourism*, 3(1), Spring 2008, pp 180-199
- Tapachai, N., and Waryszak, R., (2000). “An Examination of the Role of Beneficial Image in Tourist Destination Selection”. *Journal of Travel Research*, 39 (1): 37–44.
- Tasci, A.D. and Gartner, W.C., (2007). “Destination Image and its Functional Relationships”. *Journal of Travel Research*, 45(4): 413-425
- Telisman-Kosuta, N. (1989). “Tourist destination image”. In: Witt, Stephen F. and Luiz Moutinho (eds.), *Tourism Marketing and Management Handbook*. Hemel Hempstead: Prentice Hall
- Um, S. and Crompton, J.L., (1990). “Attitude determinants in tourism destination choice”. *Annals of Tourism Research*, 17: 432–448.
- Varvaressos S. And Soteriades M. (2011). “The Dynamics of Tourism and the International Environment: The Greek Experience”. *Archives of Economic History*, Vol.XXIII No.2 2011
- Vitouladiti, Ourania, (2012). “Importance choice criteria as a basis for tourism

- market segmentation techniques”. *Proceedings of the 2nd International Conference, Advances in Hospitality, Tourism, Marketing and Management*, (ISBN 978-960-287-139-3) Corfu Island 31/5 – 3/6, 2012 Greece: Alexander TEI of Thessaloniki, Research Institute for Tourism, Democritus University of Thrace, Washington State University.
- Walmsley, D. J. and Young, M., (1998). “Evaluative Images and Tourism: The Use of Personal Constructs to Describe the Structure of Destination Images”. *Journal of Travel Research*, 36 (3): 65–69.
- Woodside A. and Lysonski S., (1989). “A General Model of Traveller Destination Choice”. *Journal of Marketing Research*, 27(4): 8-14
- Yoon, Y. and Uysal, M., (2005). “An examination of the effects of motivation and satisfaction on destination loyalty: a structural model”. *Tourism Management*, 26(1): 45-56
- Young, M., (1999). “ The Social Construction of Tourist Places”. *Australian Geographer*, 30(3): 373-389
- Yuan, J. and Jang, S., (2008). “The effects of Quality and Satisfaction on Awareness and Behavioral Intentions: Exploring the Role of a Wine Festival”. *Journal of Travel Research*, 46: 279-288
- Zacharatos, G., (2000). *Package Tour: Production and distribution of tourism product*. Athens: Propombos Publishing

## THE WORLD EXPERIENCE OF INCREASE OF FINANCIAL LITERACY

PANTELIS KYRMIZOGLOU\* YELENA KLETSOVA\*\*

### Abstract

This paper contains comparison of level of financial literacy of the population of the developed countries, the actions undertaken by the governments of these countries for increase of level of awareness on financial services. The paper is based on the findings from an OECD International Network on Financial Education pilot study undertaken in 14 countries. The analysis focuses on variations in financial knowledge, behaviour and attitude across countries and within countries by socio-demographics. The results of this analysis provide evidence from which the participating countries can identify needs and gaps and develop appropriate national policies and strategies.

*JEL Classification: G2, G3*

*Keywords: financial literacy, financial education, financial behaviour, financial knowledge*

### The world experience of increase of financial literacy

In the last decade in many developed and world developing countries the increasing attention is paid to a perspective of increase of financial literacy of the population. Process of increase of financial literacy of the population which began in various countries in the form of separate initiatives of the public and private organizations directed on assistance to citizens in management of personal finance and informing on these or those financial products and services, gradually developed to level of national programs and strategy, and also supranational initiatives of EU, the World bank, OECD and other international organizations.

The accelerated development of process of increase of financial literacy of the population is quite natural as appropriate level of financial literacy promotes increase of a standard of living of citizens, development of economy and increase of public welfare.

---

\* Professor, Department of Accounting & Finance, Alexander Technological Educational Institute of Thessaloniki, Greece, Telephone: +30 2310 791193, e-mail: pkirmiz@acc.teithe.gr.

\*\* PhD, Department of Economics and Business, East Kazakhstan State University, Kazakhstan, Telephone: +7 7019778452, e-mail: kletsova@mail.ru.

Financial education is necessary for all categories of citizens. It gives to children an idea of the value of money, lays the foundation for further development of skills of planning of the budget and savings. Financial education can help youth with a solution of the problem of a financing of education or the solution of housing problem through financial planning, attraction and effective management of credit resources.

Financial literacy is necessary for adult citizens for management of personal finance, optimization of a ratio of savings-consumption, estimates of risks and adoption of reasonable decisions at investment of savings, when using various financial products and services, and, of course, for planning of provision of pensions. The competent consumer of financial services is better protected from roguish actions in the field of finance. Financial literacy of the population promotes inflow of means of citizens to national economy, competition development in the financial markets and to strengthening of financial stability.

The financial system which has significantly become complicated recently, acceleration of process of globalization and emergence of a wide range of new difficult financial products and services set very complex tasks to which decision they are unprepared for people. As a result of absence citizens of financial knowledge, skills of planning of the budget of households and adoption of the weighed decisions on use of financial products and services, against the aggressive offer and advertizing of such products and services from commercial structures, in society have an accumulation of considerable disproportions and the risks, capable to develop into problems of national scale.

In response to growing concern of the governments of member countries of OECD in connection with negative consequences of low level of financial literacy, in 2003 in OECD at high level the complex project concerning financial education was initiated. The present project developed under the auspices of two committees of OECD (Committee on the financial markets and Committee of insurance and private pensions), covers a wide range of the questions connected with this problem.

Due to the consequences of financial crisis questions of financial literacy and educations got a new impulse. Now politicians are around the world more increasing recognize importance of financial education not only as significant life skill, but also as key component of financial and economic stability and development. In this regard the OECD expanded the project due to creation in 2008. The international network of financial education and the International knot by the financial education, the first international information service by financial education.

It should be noted that practically in all developed countries sociological researches concerning level of financial literacy of the population were conducted, and was revealed that it everywhere is low. Inability to plan savings and to invest in the future, to make important financial decisions — here those problems which were designated in the course of researches.

Practical interest is represented the findings from an OECD International Network on Financial Education pilot study undertaken in 14 countries. The analysis focuses on variations in financial knowledge, behaviour and attitude across countries and within countries by socio-demographics<sup>1</sup>.

The results highlight a lack of financial knowledge amongst a sizeable proportion of the population in each of the countries surveyed.

The OECD International Network on Financial Education (INFE) has developed a survey instrument that can be used to capture the financial literacy of people from very different backgrounds in a wide range of countries. The questionnaire is designed to be used in face-to-face or telephone interviews.

The survey comprises good practice questions drawn from existing financial literacy questionnaires. Core questions within the survey cover financial knowledge, behaviour and attitudes relating to various aspects of financial literacy including budgeting and money management, short and long term financial plans, and financial product choice. There are also questions to provide important socio-demographic details of the participants, including age, gender and income.

The questionnaire has been used in 14 countries across 4 continents, and data has been submitted to the OECD for analysis.

This report is the first to detail the findings from analysis of data from each of these countries, focusing particularly on levels of financial knowledge, the range of financial behaviours exhibited and attitudes towards long term financial plans. It also reports initial analysis of variations in levels of financial literacy by socio-demographic status.

There is a wide variation in behaviours within countries, and noticeable variation across countries (Table 1).

However, of concern in all the countries surveyed is the lack of active, informed market participation: very few people reported that they had shopped around and sought independent information or advice to make a financial

---

1 Atkinson, A. and F. Messy (2012), “Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study”, OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing.

product choice in the last 2 years (UK participants were the most likely to have done so, at 16%).

In some of the countries, the lack of active saving is also a concern, although here there are large variations by country. In Hungary just 27% had been saving in the previous 12 months whilst in Malaysia almost everyone had done so (97%). In all, only three countries found that more than 80% of their population were actively saving.

The likelihood of setting long term goals also varies by country: more than 7 in 10 Peruvians reported that they did set long term goals, compared with just 3 in 10 Albanians.

Whilst borrowing to make ends meet is not widespread, it is a problem for a large minority in certain countries. In particular, almost half (47%) of Armenians had resorted to borrowing the last time their income fell short of their expenditure; in Albania, Peru and South Africa over a quarter of respondents had also done so.

Looking across the various behaviours we see considerable variation within a country. For example, a large proportion of Malaysian respondents were active savers and carefully considered their purchases, yet hardly any (3%) had made a recent financial product choice after shopping around and seeking independent guidance. In Norway, almost 9 in 10 people reported that they were keeping an eye on their financial affairs yet just 1 in 4 was budgeting: showing that more people look over their recent financial activities than plan future ones.

One more sign of this problem carries the name "ignorance about own ignorance" – a factor when, for example, in Australia the financial knowledge estimated the majority of respondents as good, and only 4% from them could answer a question that such difficult percent. And it in spite of the fact that in the developed countries of a household often are shareholders and actively use various credit products. In Great Britain of 33% of citizens at a choice of a financial product don't compare it to other offers in the market. It conducts to decrease not only efficiency of economy of households, but also the competition in financial sector.

Also is particularly acute a question with planning of finance of households – 70% of respondents in Great Britain didn't carry out any savings on a case of unexpected decrease in the income.

All these problems found understanding at the state level practically in all developed countries. Programs, strategy, initiatives of increase of financial literacy of the population work in many both developed, and developing countries: Australia, Austria, Belgium, Canada, Czech Republic, Estonia,

**Table 1 Positive financial behaviours by country Cell percentages by country.**

	Behavior statements				Responsible and has a household budget	Has been actively saving or buying investments in the past year	Financial product choice		Has not borrowed to make ends meet
	Carefully considers purchases	Pays bills on time	Keeps close watch on personal financial affairs	Sets long term goals and strives to achieve them			...after gathering some info	...after shopping around and using independent info or advice	
Albania	89%	77%	71%	30%	59%	42%	49%	2%	69%
Armenia	91%	94%	81%	58%	51%	36%	42%		53%
Czech Republic	75%	85%	76%	36%	37%	72%	28%	10%	89%
Estonia	68%	83%	78%	41%	28%	36%	24%	8%	78%
Germany	82%	96%	87%	61%	22%	86%	52%	5%	96%
Hungary	86%	82%	71%	52%	31%	27%	48%	4%	86%
Ireland	83%	85%	85%	56%	54%	53%	39%	10%	86%
Malaysia	92%	69%	78%	64%	74%	97%	39%	3%	79%
Norway	72%	79%	89%	59%	25%	71%	57%	5%	93%
Peru	91%	86%	82%	71%	49%	62%	52%	4%	73%
Poland	70%	78%	81%	46%	54%	51%	32%	2%	79%
South Africa	83%	61%	65%	55%	43%	53%	56%	3%	74%
United Kingdom	77%	89%	80%	43%	43%	68%	29%	16%	91%
BVI	87%	83%	80%	68%	43%	83%	70%	2%	87%

Finland, Germany, Hungary, Iceland, Indonesia, Italy, Japan, Republic of Korea, Malaysia, New Zealand, Poland, Romania, Slovakia, Spain, Republic of South Africa, Great Britain, USA etc. This global tendency –close attention

to a problem of increase of level of financial literacy of the population– is traced in all countries to some extent.

In all countries much attention is paid to inform knowledge of financial questions to the simply, available to the majority, language. It is necessary to prepare specially simplified materials adapted for the simple person.

In the course of research it became clear that economic and financial education is one of activities of many central banks.

It is necessary for understanding improvement by the public of economic processes endured by the country, helps to develop skills at the population, connected with an appropriate assessment of risks, a choice of financial services and products, forms modern model of consumer behavior.

Certainly, there are programs and with active participation of the private sector (mainly commercial banks), for example, in Belgium, Finland, Indonesia, Poland, Slovakia and the USA. However it more likely a variation on the private and state partnership in the sphere of financial literacy.

The increase in an involvement of citizens in financial operations and use of financial products became the least popular purpose of programs that once again confirms that fact that all programs had first of all an educational social role, instead of marketing.

Practically all programs of increase of financial literacy worldwide first of all pay attention of youth, and students even have more, than to children and school students as it is supposed what exactly students – future economically active population and depends on their level of financial literacy wellbeing of the country<sup>2</sup>.

Therefore the three of the major target groups – is school students, students and teachers who train these children. As a whole it can be explained so: better initially, since the birth to impart to children the correct relation to personal finance, than then to retrain.

In the world a certain practice of increase of economic and financial literacy is acquired. This subject became especially actual during global financial crisis.

At the international level process of increase of financial literacy is coordinated by the Organization for Economic Cooperation and Development (OECD) and the World bank. They developed recommendations for the countries which have addressed to this subject. Among them complexity of approach and coordination of efforts of participants; assessment of long-term

---

2 Consumer Protection and Financial Literacy. Lessons from Nine Country Studies, by Susan L. Rutledge: // [http //econ.worldbank](http://econ.worldbank)

and short-term priorities, accounting of the best practices; coherence of development of the financial market and financial literacy of consumers of services; obligatory information openness of any state undertakings.

Great Britain is the most advanced country in questions of increase of financial literacy of the population. There the national program which heads FSA –body of regulation of the financial markets– and which is supported by the country government is developed. The joint plan of action of FSA and the government of Great Britain is developed.

Among long-term actions the government and FSA allocate essential financing for introduction of changes in training programs and plans in which questions on increase of financial literacy of the population in the form of subjects and open classrooms will be added. There is a training of teachers of higher education institutions, methodical materials prepare. About 10 million pounds sterling are allocated for these programs. Among the dot – training actions on places when experts leave directly on the enterprises and hold seminars after which distribute information and educational materials. During such actions audience response becomes clear at once.

In all main initiatives of FSA participation of the government, public organizations, noncommercial funds and business is supposed. The main thing when it is a question of business participation that when developing programs for increase of financial literacy of the population the principle of objectivity and impartiality was observed and any products and services which provide these business structures didn't move ahead. Once in 4-5 years in the country researches of rather financial literacy of the population to estimate efficiency of held events are conducted.

More than 20 departments take part in the USA in implementation of the national program for increase of literacy of the population.

The special commission within which these departments interact is created. In addition to it in 2008 the advisory board at the U.S. President on financial literacy which also deals with issues of coordination, estimates was created and prepares for the president reports on efficiency of held events within the national program.

Representatives of non-profit organizations, the private sector, the academic circles, state bodies and other organizations which are engaged in providing financial education are a part of council.

In the reports on improvement of financial literacy of Americans they make recommendations about measures which should be accepted in this direction and which are urged to help citizens to learn bases of finance that they could operate the money wisely and postpone for the future.

In one of such reports it is emphasized that lack of financial literacy is one of the major factors promoting economic and financial crisis in the USA. Among recommendations – compulsory financial education at schools, tax incentives for encouragement of employers to provide financial education on a workplace, carrying out researches on search of the most effective ways of increase of financial literacy of the population, creation of programs and the resources allowing Americans to estimate the financial knowledge, providing citizens with reliable sources of information which will be able to fill gaps in knowledge<sup>3</sup>.

In the USA April is considered National month of financial literacy (National Financial Literacy Month). As a private initiative this project appeared in 2000, and in 2003 with support of the Congress of the USA and the president George Bush was recognized at official level. In April over all country importance of financial literacy is put in the forefront, Americans train how to get and support healthy financial habits.

The public financial institutions and non-profit organizations hold educational events and create the training materials devoted to the effective handling of money and the credits.

Also special portal of the U.S. Government (MyMoney.gov) devoted to teaching of bases of financial education works. It helps Americans to maximize financial decisions and concentrates information more than 20 various federal sites in one place.

The mechanism of coordination chosen as the state and partnership provides to the government low level of expenses as the state in essence finances only expenses of the commission on the financial literacy, connected with performance of the tasks assigned to it. The main financing is carried out only by the proved noncommercial funds which have considerable funds for creation and development of programs for financial literacy.

As for the European Union countries, all are engaged in increase of economic and financial literacy to some extent. The special portal for teachers of financial literacy for the purpose of database creation about all programs of EU countries for further distribution of the most successful and best practices is organized. The exchange of experience between the countries is an important factor to which the European Commission pays attention.

In Germany the central bank on a constant basis gives lectures for scientists and teachers, there are educational programs for students, children of different

---

3 Site of the Commission on financial formation of the USA: [Electronic resource]/<http://www.mymoney.gov>

age etc. The museum of money is an integral part of information policy of Doychebundesbank and a place for facultative training as adults, and children. Especially it is promoted by various means of audiovisual obtaining information.

In Greece, financial literacy issues seem to be treated mostly within the framework of consumer protection. The European Consumer Centre of Greece does a lot of work in informing the general public in matters that relate to consumer protection. It told us however that it is not aware of any national financial literacy schemes in Greece provided by public consumer protection authorities.

Also extensive experience of Poland in increase of financial literacy of the population to that the National Bank of Poland (NBP) pays special attention is interesting. In bank strategy of economic education for which realization is provided to allocate about 9,5 mln. dollars was accepted<sup>4</sup>.

In Russia increase of financial literacy of the population is considered as the most important factor of development of economy. In the Concept of long-term social and economic development of the Russian Federation for the period till 2020 this activity is called among the main directions of formation of an investment resource. Strategy of development of the financial market of the Russian Federation for the period till 2020 and the Concept of creation of the international financial center in the Russian Federation consider questions of increase of financial literacy of the population as an important factor of development of the financial market, increase of stability of a financial system and the general competitiveness of the Russian economy. At the moment the National fund of assistance of financial literacy - the public non-profit organization which is initiating national movement for financial literacy and carrying out the tasks by means of implementation of social initiatives and realization of educational programs works.

At the beginning of 2011 in the Russian Federation the state program of increase of financial literacy started. Before its emergence separate initiatives, projects and programs for financial literacy developed and were implemented. However their problem mostly was that they had no the accurate purposes, clear target audience and, the most important, methods of an assessment of efficiency of programs.

Within the Program the partnership between business, the government and public institutions for increase of level of financial formation of youth and all Russian citizens is created.

---

4 Educational portal of National bank of Poland: [Electronic resource]//[www.nbportal.pl](http://www.nbportal.pl)

The Program purposes – to expand access of youth and all population to financial information to develop system of practical knowledge and skills, to promote development of more effective models of financial behavior.

The association of the Russian banks created the All-Russian Internet TV channel, various actions in support of financial literacy are held.

In Ukraine there is no national program for increase of financial literacy of the population. Separate projects are realized. In the large cities on street advertizing carriers, bus stops, in the subway, and also in print media social advertizing was placed. The advertizing plot consisted of the step-by-step instruction explaining how to make payments by means of the cash card and what to do if the card is stolen or lost. Upon termination of the project research which revealed record knowledge of the population was conducted: on the average every fifth adult resident in whom campaign was carried out, was informed on it and is potentially ready to use of received information in practice.

Also Ukrainian experiment on implementation of the social project "School of Financial Literacy and Business" of carrying out business game in which teenagers from orphanages and boarding schools of the different cities took part is interesting. Game became a finishing event of a three-months stage of the project which has captured more than 220 children and teenagers from needy families and orphans, being trained at boarding schools, shelters and orphanages of Ukraine. During training teenagers of 11 – 15 years mastered business etiquette and financial literacy, made the family budget, studied professions, planned business of the life and defined possibilities of the development, participated in competition of business ideas, visited with excursions of partners of the project.

Analysts note that in Ukraine, despite separate initiatives, advance on the way of financial literacy and protection of the rights of consumers is in an initial stage. Absence of financial awareness and systems of protection of the rights of consumers of financial services is combined with accumulation of volumes of debt of natural persons on the obtained credits. Representatives of National bank of Ukraine note that national economy is in great need in full-scale increase of financial literacy of the population.

The report to citizens of awareness of importance of use in everyday life of national monetary unit therefore the central bank will promote in every possible way to more active development of stock market that the population invested the means in this sphere, instead of in foreign currencies and currency deposits has to become one of priorities.

## **Conclusions**

Thus, if to consider key parameters of programs of increase of financial literacy, it is possible to notice one regularity: in the majority of the countries for their realization the state organizations are responsible. Most often it either institute, or financial regulator or central bank of the country, or state agency. But in all national programs of a corner the problem of coordination of joint efforts of the state, non-profit organizations and business at implementation of actions for increase of financial literacy is at the head. Without it it is difficult to reach effective result.

## **References**

- Atkinson, A. and Messy, F. 2012. Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study, OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing.
- Commission on Financial Formation of the USA: [Electronic resource] <http://www.mymoney.gov>
- Consumer Protection and Financial Literacy. Lessons from Nine County Studies, by Susan L. Rutledge: <http://econ.worldbank>
- Educational Portal of National Bank of Poland: [Electronic resource] [www.nbportal.pl](http://www.nbportal.pl)
- National Bank of Poland: [Electronic resource] [http://www.nbp.pl/edukacja/dodatki\\_edukacyjne](http://www.nbp.pl/edukacja/dodatki_edukacyjne)

# IMPROVING EMPLOYEES' BEHAVIOR AND RELATIONSHIP MANAGEMENT: A CONCEPTUAL FRAMEWORK

G. G. KAKALETRI\* D. L. NTOMIS\*\*  
J. D. KATSANAKIS\*\*\*

## Abstract

The purpose of this paper is to explore the value created by employees in the workplace, when they adopt the proper behavior/attitude, for self and relationship management. Relevant bibliography has highlighted the importance of theoretical tools that provide information about employees' behavior, emotions and relationships in the workplace. This study attempts to examine these aspects by combining two theories as a conceptual framework: Emotional Intelligence Theory and Transactional Analysis Theory. Both of them can provide useful insights to an employee in order to improve his behavior, his relationship management skills, thus promoting communication and quality overall.

*JEL Classification:* D23, J24

*Keywords:* organizational behavior, relationship management, human resources, communication

## 1. Introduction

Nowadays organizations face intense competition, demanding significant changes (Albani and Dietz, 2009) in order to cope with the effects of globalization and technology advances resulting in a producers' capacity surplus (Jørgensen et al., 2009).

Companies recognize that their human capital is their most important asset, especially for the implementation of their strategy. According to Bergeron (2004) organizations focusing on the improvement of their human capital achieve better results. The connecting bond between (1) attitudes and the

---

\* Ph.D., Department of Business Administration, University of Piraeus, e-mail: gkaletri@yahoo.gr

\*\* Ph.D., Department of Sociology, Panteion University of Social and Political Studies, e-mail: d.ntomis@yahoo.gr

\*\*\* Ph.D. Candidate, Department of Business Administration, University of Piraeus, e-mail: jkatsanakis@gmail.com

behavior of employees and (2) performance is the affective identification of employees. Thus the employees' attitudes and behaviors can influence the effectiveness of an organization and its ability to function properly.

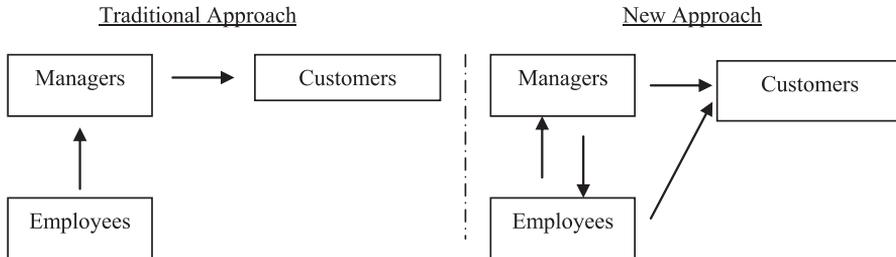
In bibliography, there are many articles written regarding the value of human capital (Gamerschlag, 2013; Veltri and Silvestri, 2011; Flamholtz, 2005; Murthy and Abeysekera, 2007; Namasivayam and Denizci, 2006; O'Donnell et al., 2003; Mayo, 2000; Bassi and McMurrer, 2005; Pickett, 2005). The reason is that the competitive advantage of a company should be driven and based by assets that are hard to be copied by competitors and make the difference in customer satisfaction. The human capital belongs to the intangible assets of a company that, when investing in it and exploiting it, the benefits and profits realized can be very immense. Therefore, the aim of this paper is to explore the value that is created by employees, when they adapt the proper behavior and attitudes and are able to manage themselves and their relationships with colleagues.

## **2. The Strategic Importance of Employees' Behavior**

Employees with hard work and sincerity can make a company successful or with their insincerity and disruptive behavior make it fail (Gupta and Kleiner, 2005, p.60). Jain et al. (2009) suggested that the well-being of employees has a positive relationship to the emotional attachment and identification with the company, maybe because healthy people view things through a positive frame of mind that may incline them to be affectively committed.

To adapt the right behavior does not only mean to express positive emotions. Both positive and negative emotions, when they are appropriate, enhance the quality of life of a person by helping further to the attainment of its goals. By contrast, inappropriate feelings get in the way of overcoming frustrations and difficulties and usually help to make bad conditions even worse (Gordon and Dryden, 1989, p.15).

According to Waldman (1994) in a traditional -authoritative- management approach employees are obeying to orders of managers, who, in return, are ensuring that the needs of their customers are met. In the new management approach there is a two way intervention between managers and employees: managers are concerned about the needs of their employees, and collaboration exists between the upper and lower management levels (Figure 1). When the needs and expectations of the employees are being considered and they are treated as a valuable asset of the company, then their behavior can be

**Figure 1: Traditional and New Management Approach**

Source: Waldman, D.A. (1994). Designing Performance Management Systems for Total Quality Implementation, *Journal of Organizational Change Management*, 7(2), p.40 (adapted).

positively affected. Employees should be treated as part of the system, which can influence the final outcome.

The pressures of the marketplace and the introduction of new management practices have had a significant effect on the traditional employment relationship, which has been replaced by a new psychological relationship increasing the necessity of understanding how employees can be encouraged to engage in discretionary extra-role behavior under the new psychological contract (Sharkie, 2009, p.495). A psychological contract characterises the employee-employer relationship and emphasises organisations attainment of favourable outcomes by understanding employee's expectations (Aggarwal and Bhargava, 2009, p.5).

The behaviors of employees, combined with the corporate procedures can lead to the improvement of corporate results (De Waal, 2004). Any strategic change can not be carried out without the existence of the right abilities and behaviors (Al-Ghamdi, 1998). But in order to adapt the right behavior, an organization should have a culture that clearly supports equitable processes and outcomes (Everton et al., 2007). The employee's behavior clearly reflects the corporate culture and the values that dominate in an organization. Deviant behaviors are less likely to appear in an organization where everyone is treated equitably. Upon the research of Carmeli (2005, p.191), employees' withdrawal behavior and intentions are partly products of organizational culture, emphasizing the importance of an organizational culture that challenges its employees.

The policies, that an organization chooses to implement, will affect the attitude and behavior of its employees, considering that, through corporate policies, employees are able to realize the intention the management team has towards employees. Employees are viewed as an integral organizational part. According to Tallman and Bruning (2008) the personality of employees influences their attitude and behavior in the working environment and, therefore, their personality affects the psychological contract. The findings of the study of Parzefall and Hakanen (2010) supported that perceived psychological contract fulfilment had both motivational (reduced turnover intentions) and health-enhancing (mental health) effects, highlighting the centrality of perceived psychological contract fulfilment to employees, and the importance of work engagement as a positive affective-cognitive state at work.

Human resources belong to the intangible assets of a company that are hard to be copied by competitors and can be used as many times as it wishes. Furthermore, they cannot be bought or acquired in short-term (Williams et al., 1991). There exist 4 criteria upon which sources of competitive advantage can be created: 1) value creation for the customer, 2) rareness, 3) ability of substitution and 4) ability of imitation (Sanchez et al., 2000, p. 314). Human resources fulfil the above criteria; therefore it is important to invest effort, time and money in them. Gill et al. (2010, p.270) support that it is important immediate supervisors and managers to help their employees to be team players, work together towards common goals, think about old problems in new ways, use their intelligence to overcome obstacles and show respect for their employees' personal feelings. There are many approaches to productivity enhancement, that help organizations build strategy and achieve performance goals, but they require significant changes in employees' behavior and because of employees' resistance to change their impact are often limited (Goncharuk and Monat, 2009).

The type of behavior and attitude that employees choose to have in the working environment, depending on whether it is productive or no, will influence the company's performance. Therefore the use of suitable management practices can affect positively the attitude and the behavior of employees, in order to achieve the desired results.

### **3. Improving Employees' Behaviours and Relationship Management in the Workplace**

#### **3.1. A conceptual framework**

Employees' behavior and relationships in the workplace can be improved using tools that provide information about behavior, emotions, communication and, in general, relationships between people. Transactional Analysis and Emotional Intelligence can provide insights in a workplace, in order to help an employee to better explain the behavior, emotions and attitudes of himself and of his colleagues.

Transactional Analysis can help an individual to understand his everyday interactions better and gain a great deal of insight into his own reactions and responses to others, by recognizing which ego state he is in, at a given time (Hayes, 2000, p.274). An Ego State is defined as a consistent pattern of feelings and experiences relating to corresponding, consistent pattern of behaviors (Barker, 1980, p.6; Stewart and Joines, 1987, p.15). According to Transactional Analysis Theory, every person has three ego states, which are separate and distinctive sources of behavior: the Parent Ego State, the Adult Ego State and the Child Ego State (Schaeffer, 2009 p. 43). The Parent Ego State reflects all the attitudes, behaviors and emotions which have been copied from parental figures at the early stages of a person's life (Hayes, 2002, p.295). It is the part of a person (in relation to itself and others) that keeps traditions, sets limits and rules, gives advice, criticises, consults, protects and nurtures (McKay et al., 2009, p.90; Barker, 1980, p.6). The Adult Ego State makes decisions upon facts and objective evaluation of data / information. An individual, who acts from the Adult Ego State, does not behave based on his emotions, but upon what is the more appropriate and useful thing to do in each circumstance (Stewart, 2005, p.496). The Child Ego State reflects the emotions and impulsive reactions which are similar to the emotions and impulsive reactions of a child (Cameron, 1999, p.309). This Ego State can be a source of creativity and spontaneous reaction (Steiner, 1990, p.28). It is the centre of a person's feelings and emotions (Barker, 1980, p.7).

Emotional Intelligence (EI) aims to help everyone to utilize their own emotions as well as the emotions of others to accomplish a prescribed action (Chrusciel, 2006, p.646). The goal of Emotional Intelligence Theory is to help an individual to develop a number of personal and social competencies, in the means of learned capabilities, which will enable him to recognize his

own feelings and those of others, motivate him and others, and manage emotions in himself and his relationships (Goleman, 1998, p.317). According to Goleman et al. (2002) these personal and social competencies constitute four basic EI components: self-awareness, self-management, social-awareness and relationship management. The development of these abilities, and therefore the development of Emotional Intelligence, affects positively employees' behavior. Employees with high Emotional Intelligence (EI) are able to balance between emotion and reason, aware of their own feeling, empathic and compassionate towards others and also show high sign of self esteem. Thus, they are happier, healthier and more successful in their relationships. On the other hand, employees with low EI, which is associated with feelings such as anger, frustration, depression, fear, guilt, stress and failure, are likely to lead to general unhappiness (Singh, 2006. p.17).

When a person is able to identify from which ego state it is interacting, the next step is to recognize the ego states from other people (McKay et al., 2009, p.92). Improving the self-awareness of an individual means that: he improves his ability to manage himself, does not adapt inappropriate behaviors, and hence manages better his relations with other people. In addition, being a person able (1) to recognize its ego states as well as the ones from its colleagues in the workplace and (2) to manage itself, as well as its relationships with other, can contribute the improvement of communication. Communication in the workplace is very important: not to be able to communicate and adapt the right behavior towards internal and external customers can affect the quality of the working environment as well as the quality of the products/ services of an organization (Figure 2).

### **3.2. Being Able to Identify the Ego States of Oneself – Self-Management**

An individual's ego state should not be confused with his personality. All the behavior, way of thinking and feelings of a person can be categorized into one of the above three ego states (Fatout, 1992, p. 109). People shift from one ego state to another, depending on the situation, the person with whom they are interacting, etc. (Northhouse, 2010, p.274). Every person has an ego state from which it prefers to, mostly, behave. A common problem is that a person operates from the wrong ego state or a specific ego state shuts out the other two. In any individual, one ego state does not operate independently from the other ego states, which frequently interact with each other in order to give an "internal dialogue". At this case the Adult ego state should interact and monitor



personal competence that enabled people to develop a clear understanding of the principles that ultimately form the basis of how they wish to live (Caldwell, 2009, p. 395).

Fletcher and Bailey (2003) pointed out that self-awareness also includes the degree to which an individual is sensitive to how he is perceived by others. Individuals who are more aware of how they are perceived by others are better at integrating information from others into their behavior (Moshavl et al., 2003, p. 407). According to Whetten and Cameron (2007) self-awareness is critical to an individual's ability to communicate with and build relationships of trust with others. Individuals high in self-awareness are skilled at self-monitoring and in adapting their behaviors to relate effectively with others (Caldwell, 2009, p. 395).

A high self-aware employee is able to determine whether the emotions he feels are reasonable in the situation, and adapt multiple perspectives to assess a problem from all sides, including pessimistic and optimistic perspectives. By adapting multiple perspectives, an employee can determine the appropriate emotional state to facilitate the solution of the problem, or resolve the conflicting emotions he may be feeling (Jordan et al., 2002, p.366).

Self-management refers to the ability to reduce, enhance, or modify an emotional response in oneself and others, as well as the ability to experience a range of emotions while also making decisions about the appropriateness or usefulness of the emotion in a given situation (Bracket et al, 2006, p. 781). According to Mayer and Salovey (1997) self-management enables individuals to connect with or to disconnect from an emotion, depending on its usefulness in any given situation. The ability to effectively manage emotions facilitates outcomes in a workplace. Employees with high EI are more likely to effectively identify their emotions, which will provide them with an awareness of their feelings and the ability to accurately read other people's feelings. Understanding emotions offers insights into what motivates people and others' points of view, while managing emotions allows an individual to deal with their feelings constructively at work (King and Gardner, 2006, p.189).

### **3.3. Being Able to Identify the Ego States of Colleagues – Managing Relations with Others**

Transactional Analysis and Emotional Intelligence are valuable tools which can help an individual better explain his and other people's behavior, emotions and attitudes. In particular, once a person becomes familiar with the

Transactional Analysis Model, it can identify the predominant ego states and the emotional tone that is hidden behind a reaction of a colleague (Wellin, 2007).

Eric Berne insisted that the ego states of a person can be recognized from the words, voice, gestures, and attitudes (Mullins, 2006, p.164). Transactional Analysis helps to understand the behavior of other people which is especially important in the workplace, particularly in stressful situations. According to Mullins (2006) by, first, recognizing the ego state of a person in a communication encounter and, then, by interpreting it, every employee can choose the most appropriate ego state to respond, in order to improve communication and/or avoid a conflict. Hence, both customer (internal and external) relationships can be improved as well as management subordinate relations.

Identifying the ego states of a colleague is not an easy task. Moreover, it gets more difficult when a person isn't able to identify the ego states it is responding from during a communication. A helpful exercise for an employee would be to pay attention during a particular discussion within a meeting. Kagan and Evans (2001) suggest that during an observation of a work team following things should be noticed:

- What ego states are expressed?
- What impact do they have for the progress of the discussion?
- What roles are being adapted?
- Do the same people adapt the same ego states in different situations and in a variety of people?

Furthermore, managing the relations with others in the workplace requires emotional intelligent employees. Emotional intelligent individuals can manage emotions and achieve to motivate others towards a worthwhile end (Salovey et al., 2004, p.15). Every employee is expected to have specific skills, knowledge, and experience in order to be effective and to meet the expected goals. But these requirements are not enough and are not a prerequisite for success in the workplace. According to Goleman (1998) one of the crucial skills that are related to emotional intelligence is communication, as well as cooperation and teamwork. Emotional Intelligence includes the ability to regulate and alter the affective reactions to others (Salovey et al., 2004, p.14). The ability to understand others, manage the relationships with them and work with them productively is divided into two dimensions: (1) social awareness and (2) relationship management. Social awareness means taking an active interest in others: listen to them, sensing their feelings needs and concerns,

while relationship management depicts the ability to inspire and influence others, collaborate with them and manage conflicts (Roussel et al., 2006, p.30). Adapting such attitudes by employees leads to win-win situations, especially when conflicts arise; satisfying everyone's needs (Shih and Susanto, 2010). Furthermore, according to Carmeli et al. (2009) highly emotionally intelligent individuals are likely to experience psychological wellbeing at a higher level than individuals who are low in emotional intelligence.

Emotional Intelligence is a positive influence on management strategy and is a mean to assess how an organization can improve staff performance and productivity, and develop a more effective Human Resources strategy (Chrusciel, 2006). Thus, it is important to select the right employees, because they influence the moral and attitudes of their colleagues. Rozell and Scroggins (2010) suggested that (1) individuals with low levels of emotional intelligence may misunderstand the emotions of fellow team members and (2) team members who have extremely high levels of emotional intelligence may, also, experience dissatisfaction with the group because of a hyper-sensitive ability and awareness of group member interactions.

Working with other people in the workplace can sometimes become very difficult, especially when facing stressful situations. Both Transactional Analysis Theory as well as Emotional Intelligence can provide useful insights to an employee in order to be able to improve his behavior, his relationships with others, his productivity and to contribute to the successful execution of the corporate strategy. The field of Emotional Intelligence can help and individual improve self-awareness and communication with others, while the theory of Transactional Analysis helps to interpret the interactions between ourselves and others (Otazo, 2006, p.219).

### **3.4. Improving Communication**

The analysis of the ego states may reveal why communication may fail or why individuals may have negative feelings (Mullins, 2007, p.226). In a healthy work environment, communication should be addressed from an Adult to Adult ego state, i.e. fostering a culture where the synergistic effect of all three Ego States is rational. Transactional analysis can aid to the understanding of human behavior, improving the communication skills, by interpreting (1) the ego state of the other person and (2) realizing from which ego state the best response can be produced (Mullins, 2007, p.227). Furthermore, through the transactional analysis concepts an individual can develop active listening skills. The benefits of active listening, for the person that sends the message,

are to receive feedback, think more clearly, be committed in solving problems, and for the person that receives the message, are to have a clear mind, interact with the speaker, reflect feelings, be engaged in problem solving, etc. (Pont, 2003, p.134).

Thus, transactional analysis helps to determine the basis from which an individual is communicating and thus to decide how to respond (Pont, 2003, p.133). Especially in difficult situations, the knowledge of transactional analysis can be a benefit for employees (Mullins, 2007, p.227). Being able to communicate better helps to reduce prejudices in the workplace and eliminate misunderstandings and conflicts. Hence, effective communication is the key for every business who wants to be successful, because no strategy can be executed, no plan can be implemented, and no practice can be successful, if the communication fails.

In addition, emotional intelligent individuals are able to apply the 4 dimensions of Emotional Intelligence, i.e. self-awareness, self-management, social awareness and relationship management, which in return facilitates the communication in the workplace. As Chrusciel (2006, p.652) points out, an individual may be able to excel in an environment which requires minimal social interaction, but become frustrated in one which requires complex communications and interactions. Emotional intelligence can help a person to overcome barriers during a communication encounter, to manage better itself and its relationships with other colleagues and, hence, to create a positive work environment. According to Clarke (2010, p.139) a clear link exist between emotional awareness and emotional management improving the team processes of communication and conflict management as a result of critical reflection.

### **3.5. Improving Communication and Quality**

Communication is considered to be a vital factor for quality in organizations, especially when quality improvements are necessary. In this case, communication becomes the driver for informing every employee what needs to be achieved and/ or improved. The findings of Sias (2005) suggest that the quality of information individuals receive in the workplace increases their job satisfaction and commitment to the organization. Furthermore, there is a positive effect of communication on the implementation of management practices, while it can also have a positive effect on quality performance (Zeng, et al., 2013).

Quality can't be achieved without the contribution of the human factor. Therefore, creating a positive environment, which is distinguished for

its co-operation, open communication and trust, is essential. Quality can be achieved in organizations only when managers create an organizational culture that focuses on consistently developing quality products or services (Demirbag and Sahadev, 2008, p.495). In addition, according to Bin Abdullah et al. (2008) significant influence on quality improvement can have the management commitment; customer focus; employee involvement; training and education; and reward and recognition.

Motivating employees in order to be effective and efficient in their jobs, and, hence, to improve quality is substantial in order to gain new customers, to retain the old ones and, finally, to improve the profits of the organization (Bienstock et al., 2003). In this context, Emotional Intelligence and Transactional Analysis Theory can be substantial tools in order to help employees to be quality oriented, focusing, also on continuous improvements. Quality can be improved in many levels (working environment, products and services, relationships between colleagues/ managers-subordinates/ employees and clients, etc.).

Being able to manage emotions and also to understand the behavior of oneself and of the colleagues can improve the quality of the work environment. Emotional intelligence can help an individual to sense the emotions of the service user, providing better services (Nishida, et al., 2010, p.13). Furthermore, improving the behavior of employees in the workplace – using the concepts of Transactional Analysis Theory – can be beneficial for a company in many ways. According to Beatson et al. (2008) employee behaviors are positively related to consumer's evaluations, and, hence, adapting similar behaviors can most likely effect the quality of the relationship, e.g. satisfaction, trust and commitment.

#### **4. Conclusion**

The turbulent environment and the increased competition urge companies to seek for areas that can improve their competitiveness. Therefore, organizations need to explore new ways which can help to improve the behavior, attitude and emotions of their employees in the workplace. Transactional Analysis and Emotional Intelligence must be seen as tools that can cause chain reactions in the workplace.

Every individual has an ego state from which he chooses to communicate most of the time (i.e. with criticism, strong emotions, rationality, anger, etc.). Transactional Analysis can be a valuable tool in order to improve communications, especially when people aren't responding from their Adult ego state,

i.e. being rational. Hence, it can help employees understand human behavior, and to choose from which ego state it is more appropriate to respond, in order to improve communication and diminish misunderstandings. As a result, the customer relations, as well as the management-subordinate relations can be improved (Mullins, 2006, p.165).

In addition, every employee in the workplace, most probably, hasn't the same levels of Emotional Intelligence with their colleagues. Investing in human resources and train them in order for every employee to be able to manage himself and his relationships with other colleagues is important. People can improve on the emotional intelligence competencies, but also can sustain them for years (Goleman, 2002, p.105). That's why it is important for managers to help their subordinates to improve not, only their technical skills, but also the skills that can help them improve their emotional intelligence. Chrusciel (2006) suggests that the emphasis on EQ helps employees to improve themselves, but there are also a lot of benefits for the company as well.

Companies can create the right behavior by providing the right incentives and shaping an environment that fosters the desired behavior and leads to the expected results. Creating a positive work environment where the behavior of every employee is rational can help improve productivity, quality and reduce any mistakes or problems that result from stress, misunderstandings and confusions. Companies need to focus on the motivation of their employees in order to adapt the right behavior, perform their roles well, so that the organization's products/services completely satisfy the needs of the customer. In return, a satisfied customer is not only loyal, but can also attract new customers.

## References

- Aggarwal, U., and Bhargava, S. (2009). Reviewing the relationship between human resource practices and psychological contract and their impact on employee attitude and behaviors: A conceptual model. *Journal of European Industrial Training*, 33, pp.4-31.
- Albani, A., and Dietz, J.L.G. (2009). Current trends in modelling inter-organizational cooperation. *Journal of Enterprise Information Management*, 22(3), pp.275-297.
- Al-Ghamdi, S. M. (1998). Obstacles to successful implementation of strategic decisions. *European Business Review*, 98(6), pp.322-327.
- Barker, D. (1980). *TA and Training*. Gower.
- Bassi, L., and McMurrer, D. (2005). What to do when people are your most important asset. *Handbook of Business Strategy*, 6(1), pp.219-224.

- Beatson, A., Lings, I., and Gudergan, S. (2008). Employee behavior and relationship quality: impact on customers. *The Service Industries Journal*, 28(2), pp.211 – 223.
- Bergeron, C. (2004). Build a Talent Strategy to Achieve your Desired Business Results. *Handbook of Business Strategy*, 5(1), pp.133-139.
- Bienstock, C., DeMoranville, C., and Smith, R. (2003). Organizational Citizenship Behavior and Service Quality. *Journal of Services Marketing*, 17(4), pp.357-378.
- Bin Abdullah, M.M., Uli, J., and Tari, J.J. (2008). The influence of soft factors on quality improvement and performance: Perceptions from managers. *The TQM Journal*, 20(5), pp.436-452.
- Brackett, A.M., Rivers, E.S., Shiffman, S., Lerner, N., and Salovey, P. (2006). Relating Emotional Abilities to Social Functioning: A Comparison of Self-Report and Performance Measures of Emotional Intelligence. *Journal of Personality and Social Psychology*, 91(4), pp.780-795.
- Caldwell, C. (2009). Identity, Self-Awareness, and Self-Deception: Ethical Implications for Leaders and Organizations. *Journal of Business Ethics*, 90, pp.393–406.
- Cameron, R. (1999). *Acting Skills for Life*. Dundurn Press Ltd.
- Carmeli, A. (2005). The relationship between organizational culture and withdrawal intentions and behavior. *International Journal of Manpower*, 26(2), pp.177-195.
- Carmeli, A., Yitzhak-Halevy, M., and Weisberg, J. (2009). The relationship between emotional intelligence and psychological wellbeing. *Journal of Managerial Psychology*, 24(1), pp. 66-78.
- Chrusciel, D. (2006). Considerations of emotional intelligence (EI) in dealing with change decision management. *Management Decision*, 44(5), pp.644-657.
- Clarke, N. (2010). Emotional intelligence and learning in teams. *Journal of Workplace Learning*, 22(3), pp.125-145.
- De Waal, A. (2004). Stimulating performance-driven behavior to obtain better results. *International Journal of Productivity and Performance Management*, 53(4), pp.301-316.
- Demirbag, M., and Sahadev, S. (2008). Exploring the antecedents of quality commitment among employees: an empirical study. *International Journal of Quality and Reliability Management*, 25(5), pp.494-507.
- Everton, W.J., Jolton, J.A., and Mastrangelo, P.M. (2007). Be nice and fair or else: Understanding reasons for employees' deviant behaviors. *Journal of Management Development*, 26(2), pp.117-131.

- Fatout, M. (1992). *Models for change in social group work*. Aldine Transaction.
- Flamholtz, E. (2005). Conceptualizing and measuring the economic value of human capital of the third kind: Corporate Culture. *Journal of Human Resource Costing and Accounting*, 9(2), pp.78-93.
- Fletcher, C., and C. Bailey (2003). Assessing Self-Awareness: Some Issues and Methods. *Journal of Managerial Psychology*, 18(5), pp.395–404.
- Gamerschlag, R. (2013). Value relevance of human capital information, *Journal of Intellectual Capital*, 14 (2), pp.325 – 345.
- Gill, A., Fitzgerald, S., Bhutani, S., Mand, H., and Sharma, S. (2010). The relationship between transformational leadership and employee desire for empowerment. *International Journal of Contemporary Hospitality Management*, 22(2), pp.263-273.
- Goleman, D. (1998). *Working with Emotional Intelligence*. NY: Bantam Books.
- Goleman, D. (2002). *The New Leaders*. London: Little Brown.
- Goleman, D., Boyatzis R., and McKie A. (2002). *Primal Leadership*. Harvard Business School Press, MA: Cambridge.
- Goncharuk, A.G., and Monat, J.P. (2009). A synergistic performance management model conjoining benchmarking and motivation. *Benchmarking: An International Journal*, 16(6), pp.767-784.
- Gordon, J., and Dryden, W. (1989). Counselling Employees: The Rational-Emotive Approach. *Journal of Workplace Learning*; 1(4), pp.14-20.
- Gupta, V., and Kleiner, B. H. (2005). How to Recognise and Handle Potentially Violent Employees. *Management Research News*, 28(11/12), pp.60-69.
- Hayes, J. (2002). *Interpersonal Skills at Work*. Routledge.
- Hayes, N. (2000). *Foundations of psychology*. Cengage Learning EMEA.
- Jain, A.K., Giga, S.I., and Cooper, C.L. (2009). Employee wellbeing, control and organizational commitment. *Leadership and Organization Development Journal*, 30(3), pp.256-273.
- Jordan, J.P., Ashkanasy, M. N., and Hartel, E.J. Ch. (2002). Emotional Intelligence as a Moderator of Emotional and Behavioral Reactions to Job Insecurity. *The Academy of Management Review*, 27(3), pp.361-372.
- Jørgensen, H.H., Owen, L., and Neus, A. (2009). Stop improvising change management. *Strategy and Leadership*, 37(2), pp.38-44.
- Kagan, C., and Evans, J. (2001). *Professional Interpersonal Skills for Nurses*. Cheltenham UK: Nelson Thornes.
- King, M., and Gardner, D. (2006). Emotional intelligence and occupational stress among professional staff in New Zealand. *International Journal of Organizational Analysis*, 14(3), pp.186-203.

- Lynch J.J. (1996). *Psychology of relationship banking: profiting from the psyche*. Woodhead Publishing.
- Mayer, J. D., and Salovey, P. (1997). What is emotional intelligence?. In P. Salovey and D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3-31). New York: Basic Books.
- Mayo, A. (2000). The role of employee development in the growth of intellectual capital. *Personnel Review*, 29(4), pp.521-533.
- McKay, M., Davis, M., and Fanning, P. (2009). *Messages: The Communication Skills Book*. (3<sup>rd</sup> Ed.). New Harbinger Publications.
- Moshavl, D., Brown, F. W., and Dodd N. G. (2003). Leader Self-Awareness and Its Relationship to Subordinate Attitudes and Performance. *Leadership and Organization Development Journal*, 24(7/8), pp.407–418.
- Mullins, L. (2006). *Essentials of organisational behavior*. Pearson Education, Essex: Harlow.
- Mullins, L.J. (2007). *Management and organisational behavior*. (8<sup>th</sup> Ed.), Pearson Education.
- Murthy, V., and Abeysekera, I. (2007). Human capital value creation practices of software and service exporter firms in India. *Journal of Human Resource Costing and Accounting*, 11(2), pp.84-103.
- Namasivayam, K., and Denizci, B. (2006). Human capital in service organizations: identifying value drivers. *Journal of Intellectual Capital*, 7(3), pp.381-393.
- Nishida T., Jain, L.S., and Faucher, C. (2010). *Modelling Machine Emotions for Realizing Intelligence: Foundations and Applications*. Springer.
- Northhouse, P.G. (2010). *Leadership: Theory and Practice*. (5<sup>th</sup> Ed.), SAGE.
- O'Donnell, D., O'Regan, P., Coates, B., Kennedy, T., Keary, B., and Berkery, G. (2003). Human interaction: the critical source of intangible value. *Journal of Intellectual Capital*, 4(1), pp.82-99.
- Otazo, K. (2006). *The truth about managing your career...and nothing but the truth*. New Jersey: Prentice Hall PTR.
- Parzefall, M.R., and Hakanen, J. (2010). Psychological contract and its motivational and health-enhancing properties. *Journal of Managerial Psychology*, 25(1), pp.4-21.
- Pheysey, D.C. (1993). *Organizational cultures*. Routledge.
- Pickett, L. (2005). Optimising human capital: measuring what really matters. *Industrial and Commercial Training*, 37(6), pp.299-303.
- Pont, T. (2003). *Developing effective training skills*. CIPD Publishing.
- Roussel, L., Swansburg, R.C., and Swansburg, R.J. (2006). *Management and*

- leadership for nurse administrators*. Sudbury Massachusetts: Jones and Bartlett Learning.
- Rozell, E.J., and Scroggins, W.A. (2010). How much is too much? The role of emotional intelligence in self-managed work team satisfaction and group processes. *Team Performance Management*, 16(1/2), pp.33-49.
- Salovey P., Brackett, M., and Mayer, J.D, (2004). *Emotional Intelligence: Key Readings on the Mayer and Salovey Model*. NY: NPR Inc.
- Sanchez, P., Chaminade, C., and Olea, M. (2000). Management of intangibles: An attempt to build a theory. *Journal of Intellectual Capital*, 1(4), pp.312-327.
- Schaeffer, B. (2009). *Is It Love or Is It Addiction?*. (3<sup>rd</sup> Ed.) Hazelden Publishing.
- Sharkie, R. (2009). Trust in leadership is vital for employee performance. *Management Research News*, 32(5), pp.491-498.
- Shih, H.A., and Susanto, E. (2010). Conflict management styles, emotional intelligence, and job performance in public organizations. *International Journal of Conflict Management*, 21(2), pp.147-168.
- Sias, P. (2005). Workplace Relationship Quality and Employee Information Experiences. *Communication Studies*, 56(4), pp.375-395.
- Singh, D. (2006). *Emotional Intelligence at Work: A Professional Guide*. New Delhi: Response Books.
- Steiner, C. (1990). *Scripts People Live: Transactional Analysis of Life*. Grove Press.
- Stewart, I., and Joines, V. (1987). *TA Today: A New Introduction to Transactional Analysis*. Lifespace Publishing.
- Stewart, W. (2005). *An A-Z of Counselling Theory and Practice*. (4th Ed.). Nelson Thornes.
- Tallman, R., and Bruning, N. (2008). Relating employees' psychological contracts to their personality. *Journal of Managerial Psychology*, 23(6), pp.688-712.
- Veltri, S. and Silvestri, A., (2011). Direct and indirect effects of human capital on firm value: evidence from Italian companies. *Journal of Human Resource Costing & Accounting*, 15(3), pp.232 – 254.
- Waldman, D.A. (1994). Designing Performance Management Systems for Total Quality Implementation. *Journal of Organizational Change Management*, 7(2), pp.31-44.
- Wellin, M. (2007). *Managing the psychological contract: using the personal deal to increase business performance*. Hampshire, England: Gower Publishing Ltd.

- Whetten, D. A., and Cameron, K. S. (2007). *Key Dimensions of Self-Awareness, in Developing Management Skills*. (7th Ed.). Upper Saddle River, NJ: Prentice Hall.
- Williams, M.L., Tsai, M.H., and Day, D. (1991). Intangible Assets, Entry Strategies, and Venture Success in Industrial Markets. *Journal of Business Venturing*, 6, pp.315-333.
- Zeng, J., Anh, P.C., Matsui, Y. (2013). Shop-floor communication and process management for quality performance: An empirical analysis of quality management. *Management Research Review*, 36 (5), pp.454 – 477.

## AIMS AND SCOPE

With our semi-annual edition we aim to present the exploratory work of experienced economists as well as economists of the younger generation who take an active interest in economic life and economic thought as well as their development.

Above all the *Archives of Economic History* will endeavor to shed some light on the course of economic policy and economic thought based on historical material.

In order to render its mission more complete, the *Archives of Economic History* will include the publication of selected double blind peer reviewed papers of general scientific interest cited in the Journal of Economic Literature (JEL) classification system.

The *Archives of Economic History* is indexed and abstracted in the electronic bibliographies of the American Economic Association since 1995

## AUTHORS GUIDELINES

The submitted papers must be original work without prior publication or currently being considered for publication, and will be approved by two specialists. The following conditions and procedures for the articles submission should be taken into consideration:

**1. Articles must be written in English and submitted in MS-Word (doc or docx).**

Their length should not exceed a maximum of 30 pages. A complete article should contain two files: the abstract file (maximum length: 120 words) and a main body text file.

**2. On the first page of the abstract file** the following information should be printed:

- a. Title of the article
- b. Author's/Authors' name and surname (in capital letters)
- c. Name of Institution and Department where the author is employed
- d. Author's contact details: mailing address, telephone number and e-mail address. The code of classification of the submitted article should appear after the abstract according to the JEL classification system, and should be no more than 6 keywords.

**3. Only the title of the article** should appear at the top of the first page of the main body text file. All papers should be submitted to: akiohos@otenet.gr

**4. Acknowledgements of references** of the original source of the articles should appear after the endnotes and before the bibliographical references.

**5. Tables or Graphs** should be written clearly and their size should not exceed a regular A4 page. They should also be entitled and numbered accordingly (e.g. "Table 1:", "Graph 1:" etc.)

**6. Paragraphs** must be numbered in Arabic numbers, starting from introduction (e.g. 1, 1.1, 1.2, 2, 2.1, 2.2 etc.).

**7. The article** should be accompanied by the bibliography directly relevant to its subject. Footnotes should be consecutively numbered and appear at the end of the article, before the bibliographical references.

**8. The formulae** should follow a consecutive numbering on the right hand side of the page.

**9. Quotations cited in the main text or in the footnotes** include the surname of the author, the year of publication and specific page numbers, for example: (Elton, 1967) or (Montesano and Brown, 2008) citing both names of two, or (Viaggi et al., 1991), when there are three or more authors.

Bibliographical references on the last page of the article should be written in alphabetical order, as follows:

- i) **For books:** e.g. Strunk, W., and White, E. B. (1979). The elements of style. (3rd ed.). New York: Macmillan.
- ii) **For articles:** e.g. Van der Geer, J., Hanraads, J. A., and Lupton, R. A. (2000). 'The art of writing a scientific article'. Journal of Scientific Communications, 163 (1), pp. 51-59.

**10. Among the articles submitted**, those that fulfill the above criteria are forwarded to referees for assessment.

**11. Failure to apply the above terms** will result in the rejection of the article or its return to the author for review and editing.

**12. The author is informed** whether or not the article submitted has been accepted or will be accepted upon improvements made based on the comments of the referee or the editorial board. When the author has completed the proofs reading of the articles no further additions or changes to the text are allowed.

**13. Failure to a timely submission** of the proofread article directly means that the article will not be included in the current issue.

**14. Articles under review** should be submitted to the following address: Professor Petros A. Kiochos, Editor in Chief of the Archives of Economic History, 84 Galatsiou avenue, Athens 111 46, Greece, **Tel. No.** (+30) 210-2910866 or, (+30) 693-7244739. Alternatively papers may be submitted to: akiohos@otenet.gr