The 3rd Conference of the International Association for Tourism Economics

Conference Abstracts

CONFERENCE ABSTRACTS

3rd Conference of the International Association for Tourism Economics

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edited by

Neelu Seetaram and Adam Blake

Welcome Note

On behalf of the members of the Executive Council, I wish you a very warm welcome to Bournemouth for the 3rd Conference of the International Association for Tourism Economics, 2011. I would like to thank the local organising committee and the Bournemouth University School of Tourism for the excellent support they have given the conference. This conference follows our very successful meetings in Mallorca 2007 and Thailand 2009. Since its inception IATE has progressed from strength to strength and is undoubtedly the world's peak academic body in the discipline of tourism economics. I am pleased that you are participating in this journey. Our hosts have developed an excellent programme that promises to engage us all intellectually and socially. It presents us with opportunities to inform and be informed, to communicate with our colleagues, exchanging and debating ideas and last, but not least - - - to have fun. Enjoy the Conference!

Larry Dwyer

President of International Association for Tourism Economics

Dear colleagues,

Bournemouth University School of Tourism is very proud to host the 3rd Conference of the International Association for Tourism Economics. We are pleased to be welcoming over 100 delegates, from 37 countries, who will present studies based on 44 different countries or regions.

We have developed an interesting programme aimed giving you the platform to present your work to your peers and an excellent keynote speaker programme with a mix of academic and professional input, all at a very high level. Brief bio sketches of the keynote speakers are on the following pages.

We have two "firsts" for an IATE conference - on Wednesday we have a dialogue with journal editors, and preceding the main conference on Monday, a PhD student workshop. The latter recognises the importance of new researchers to the field of tourism economics, and I am sure that you will all join me in wishing them well.

Conferences always involve day after day of hard work, discussing complex matters at the forefront of human knowledge, as I am sure you have all told your family, friends and colleagues back home. We have sought to balance this workload with evening social events at some great venues, showing some of the heritage, both old and new, that the UK has to offer, as well as a taste of the mix of cultures from around the world that makes up modern Britain.

We thank the sponsors for their invaluable support and the scientific committee for their scholarly input and welcome you in our beautiful seaside town of Bournemouth. We hope that you will enjoy your stay and have a productive conference.

Adam Blake

Conference Convenor

Keynote Speakers

Brian ARCHER

Brian Archer is a Professor Emeritus at Surrey University in England, where for seventeen years he was Professor and Head of the School of Management for the Service Industries (formerly the Department of Hotel, Catering and Tourism Management) and the for the following nine years Pro-Vice- Chancellor of the University. During the 1970s and 1980s he developed a series of regional multiplier models, some based on macro-economic models and others on input-output analysis. These models were used for a variety of studies, such as the impact of a nuclear power station, the introduction of new industries into a region and the impact of tax haven companies. While these studies showed the wide scope of the models, but the largest use was for the analysis of the impact of tourism in various countries and regions. Indeed some 40 studies were undertaken over a range of different countries. As part of his work, he has been a consultant to the World Bank, the UNDP, the World Tourism Organization and the Commonwealth Secretariat, as well as a Special Advisor on Tourism to a House of Commons Select Committee. He is the author of more than a hundred articles, reports and books and has given papers at conferences, colloquia and seminars in 60 different countries.

Diana BARROWCLOUGH

Diana Barrowclough is a senior economist with the United Nations Conference for Trade and Development. She was the principle author and project manager of a four-year multi-country research project '*FDI in tourism: the development dimension*', working in collaboration with academics, researchers, policy makers and tourism investors in more than 20 countries. Her interest in the economics of tourism stem from broader interests in development, economic diversification, and the relationship between markets and the state. She has also published jointly and singly on a range of issues relating to investment, finance and development. Before joining the United Nations, she was a lecturer in economics at Cambridge University, England, where she was a Fellow of St John's College. She was educated at the University of Auckland, New Zealand, and Cambridge University, and holds a PhD in Economics (Cambridge). She is a national of the United Kingdom and New Zealand. She and her family currently live in Geneva, Switzerland.

Ufi IBRAHIM

Ufi Ibrahim, chief executive of the British Hospitality Association, joined in July 2010. Previously, she was chief operations officer of the London-based World Travel & Tourism Council (WTTC), where she worked with governments and industry across the world advising on policymaking and the development of

planning frameworks for the long-term success of travel and tourism. She was instrumental in the establishment of the Global Travel & Tourism Summit – the annual meeting of world leaders to discuss and agree key priorities for the industry. Prior to joining WTTC in 2000, Ms Ibrahim was in charge of the American Express Global Passport and Visa Unit for five years. She studied at London Metropolitan University, graduating with a BA in Leisure and Tourism Management, and has recently graduated with distinction in her MBA from the Open University. Ufi is a trustee of Sustainable Travel International (UK), and a Fellow of the Institute of Hospitality.

Antonio MASSIEU VERDUGO

Born in the Canary Islands, Mr. Massieu studied economics in Madrid, before joining the "Instituto de Estudios Turísticos" (Institute for Tourism Studies). As Vice-Director of the Spanish Institute for Tourism Studies, he helped develop and launch various new systems of measuring tourist flows, among which *Frontur* – based on visitor movements across the country's borders- *and Familitur* –which studies the domestic tourism market. He also began the first steps towards creating a Tourism Satellite Account (TSA) for Spain. He worked with the World Tourism Organization (UNWTO) during two years as Chairman of the statistics Steering Committee, in his capacity of delegate from Spain. Mr. Massieu began to work at the UNWTO in May 1999 as Chief of the Department of Statistics and TSA and his immediate goals were to develop support systems for member countries and to expand cooperation with other leading organizations in the tourism sector.

Following the World Conference on the Measurement of the Economic Impact of Tourism held in Nice, France, in June 1999, he was deeply involved in gaining the United Nations approval for the Tourism Satellite Account methodology. The United Nations Statistical Commission (UNSC) adopted the recommendations in 2000 with the title: "*Tourism Satellite Account: Recommended Methodological Framework*". An updated version (*Tourism Satellite Account: Recommended Methodological Framework 2008*) was adopted by the UNSC at its thirty-ninth session (February 2008), together with the *International Recommendations for Tourism Statistics 2008*, which provide a comprehensive methodological framework for collection and compilation of tourism statistics, and revise the *Recommendations on Tourism Statistics*, adopted by the Commission in 1993. Retired in May 2001, he has been appointed as special advisor to UNWTO´s Secretary General on Statistics and TSA

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Developing Transport and Tourism Price Index and Link it with National Tourism Statistical System in Saudi Arabia[f]

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Keywords: Consumer Price Index, Tourism Expenditure

No clear consensus has emerged on who created the first price index. The earliest reported research in this area came from Welshman Rice Vaughan in 1675. His analysis indicated that price levels in England had risen six to eight-fold over the preceding century. Vaughan's research did not actually involve calculating an index. The Kingdom of Saudi Arabia has a track record of very low inflation rates (less than 1% during 1998 – 2005) compared to the rest of the world, but during 2006 – 2008, the Kingdom entered a period in which inflation was well above its historical norms. CPI (Inflation) flared up to a high level of 9.9% in 2008.

The basic aim of this Paper is to expand and develop "National System of & Tourism Information" in Saudi Arabia. The other purpose is to explore the possibility of developing a "Transport and Tourism Price Index" (TTPI) for Saudi Arabia, based on a monthly publication of the Central Department of Statistics and Information (CDS&I), "Cost of Living Index" for all households of Saudi Arabia (Consumer Price Index) for June 2009. After reviewing the commodity basket, the sample size and the methodology used by the CDS&I, MAS Center identified the tourism-characteristic commodities available from the CLI-AH (CDS&I) commodity basket and made an attempt to develop ", Transport and Tourism Price Index" (TTPI) for Saudi Arabia.

The Transport and Tourism price index (TTPI) expresses the average changes in prices of services and commodities consumed by foreign tourists. The price data come from the survey on consumer prices and the weighting data are based on a special sample survey on detailed spending of tourists. The expenditure patterns of local consumers and of tourists are very different. This makes the CPI a less precise instrument to analyze price elasticities of tourists. For the CLI – AH (CPI), the focus is on the local population, while for the TTPI the focus of attention is the inbound tourists.

Tourism expenditure is defined as "The total consumption expenditure made by a visitor or on behalf of a visitor for and during his / her trip and stay at destination". It is observed that the consumption expenditure patterns of internal (domestic & inbound) tourists and that of local population are different.

For constructing Transport & Tourism Price Index (TTPI), tourism expenditure data are broken down by main item groups. This is done (a) to evaluate and analyze the influence of tourism on the various sectors; and (b) to establish a weighting base (or tourist 'market basket'). The UNWTO recommends that data on tourism expenditures should be collected and presented by at least the seven primary groups: (1)Travel Package , package holidays

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[f]Full paper available on memory stick.

and package tours; (2) Accommodation; (3)Food and drinks; (4)Transport; (5)Recreation, culture and sporting activities; (6) Shopping; (7) Others.

 Price indices on tourism can be divided into the following two main categories: (a) Price Indices from the demand side (which is currently the focus of our research); (b)Price Indices from the supply side. Price Indices on tourism from the demand side measure changes in prices over time of a given pattern of tourist expenditure made by all visitors (residents and non-residents) in the economic territory of a country (region, area). The results of tourism expenditure surveys are used for the calculation of the weighting scheme of tourism price indices. The weighting pattern provides the multipliers by which the prices, or price relatives, are combined for the calculation. In this study the focus will be on price indices from the demand side. From a practical point of view, it is recommended to use the same Laspeyres formula, which is used for constructing CPI, because it does not require the continuous recalculation of the weights. The formula can be expressed as a weighted mean of price relatives between the base period and the period under consideration. As a tourism indicator, the TTPI is a good measure of inflation in the tourism sector, which could be used as an indicator of the effectiveness of the government tourism policy.

The potential use of indices like the CPI in the framework of the TSA can give rise to bias that can seriously distort the results obtained in the context of the TSA. Some difficulties are observed, as CPIs are based on household budget surveys (HBSs), which collect data on the basis of place of residence. This gives rise to a problem in monitoring the real prices actually paid by consumers when there is a geographic dislocation between the place of consumption and the place of residence. In their present form CPIs are tools that hold out great potential in the framework of the TSA, although they do entail problems that will be difficult to overcome in the case of inbound tourism. To construct these indices, the statistical procedures currently in use by the national statistical offices will have to address at least the following issues:

•Exploring the outcome of including the territorial component intrinsic to the TSA.

•Performing additional studies to supplement statistical procedures that will make it possible to establish the composition of the resident's shopping basket inside and outside the usual environment and the resulting weighting structure of the indices.

•Expanding procedures to implement specific modules for compiling the real prices actually paid by non-resident visitors in the economy in question.

An attempt has been made by the MAS Center of the SCTA to derive a TTPI from the CDS&I monthly "Cost of Living Index" for All Population for Saudi Arabia (CLI-AP). It reflects price changes in a fixed market basket of goods and services over a fixed period of time. The current item basket of the CDS&I covered a total of 406 items to build the index. The CDS&I used Laspeyres formula for calculating CLI - AH, which is used in most countries. For deriving TTPI, a list of 89 tourism-related products and services, as recommended by the UNWTO, was reviewed to come up with a tentative list of 62 tourism characteristic products/services, which has a significant relevance to Saudi Arabia. After reviewing 406 items in the CDS&I, CLI-AH, the price relatives for the selected tourism-related commodities and services were identified. Only 21 tourism-characteristic products/services were found out of 62 items proposed by the MAS Center – , Transport & Tourism Price Index (TTPI) in CLI, June 2009. The derived tourism characteristic products and services from the CDS&I were grouped into seven categories and the price indices (price

relatives) of individual items were obtained for June 2009, May 2009, March 2009 and June 2008.

We conclude that the Transport and Tourism Price Index (TTPI) for Saudi Arabia is needed parallel to CDS&I Cost of Living Index, as the consumption patterns of local population and the inbound tourists are different. The TTPI could be a helpful indicator of the effectiveness of the government tourism policy. This indicator will be useful in tourism research, especially empirical research in the short-term as well as long-term at the national, regional and international levels.

References

Dwyer, L., and Forsyth, P. (1993), 'Assessing the benefits and costs of inbound tourism', *Annals of Tourism Research*, Vol 20, No 4, pp 751–768.

Central Statistical Office, Hungary Statistics on Tourism, Some Basic Concepts and Methodological Remarks,.

Central Department of Statistics & Information (CDS&I), KSA ,Cost of Living Index, , June 2009.

Chance, W.A. "A Note on the Origins of Index Numbers", The Review of Economics and Statistics, Vol. 48, No. 1. (Feb., 1966), pp. 108-10.

Government of Macao An Econometric Analysis of Tourism Inflow in Curacao: Can Tourism Price Indices   help us out? SEO Discussion Paper 54, 1st Conference of the International Association for Tourism Economics, Mallorca, October 25 – 27, 2007., Special Administrative Region, Statistics and Census Service.

Grandfather Economic Reports, Consumer Price Index since 1800, July 2009.

Juan M. Perez Mira, Department of Economics, University of Valencia, Spain.

MAS Center, SCTA, International Visitors Survey (IVS), KSA, 2007.

MAS Center, SCTA, Domestic and Outbound Tourism Survey (DOTS), KSA, 2007.

Perez, J.M. "Household budget surveys as a means of measuring visitor expenditure", (2000).

Rameshwar P. Srivastava "Tourism Price Index", Ministry of Finance, Development Planning Unit, Government of the British Virgin Islands.

World Economic Forum.(WEF).World Travel and Tourism Competitiveness Report, 2009

Fares, Load Factors and Yield Management: Evidence from a Low-Cost Airline

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Yield management includes a broad set of techniques that an airline follows to set fares under varying conditions of demand uncertainty. Data on fares and available seats were retrieved from the Ryanair' web site in order to shed some light on some largely unexplored aspects of this airline's yield management system. A notable innovation in this study is the possibility to combine fares with the number of seats available at the time the fare was retrieved. Unlike most of the existing literature, the analysis is conducted at the level of a single flight using fixed-effect, panel data techniques.

The data are used to test some theoretical predictions from models of pricing under systematic peak-load pricing (i.e., when the firms set their fares based on forecasts of the peak period). In such models, the firm should determine different ``batches'' of seats, and that fares should increase as fewer batches remain unsold. That is, the profile of fare should be an increasing function of the number of sold seats. We test this hypothesis by estimating a booking curve linking a flight's seat occupancy with offered fares, and find a positive relationship where, on average, an extra sold seat induces an increase of 1-2\% in posted fares.

Furthermore, we assess whether the actual yield management approach by the airline presents elements consistent with pricing under stochastic peak-load pricing, i.e., the airline updates dynamically its booking curve depending on a flight's occupancy rate at specific times prior to departure. The evidence reveals that, all else equal, the booking curve appears to be steeper when a flight fills up early rather than late. This would suggest that theoretical models that do not account for stochastic peak-load pricing fail to capture an important source of dispersion in the data.

We also test whether market power, as indicated by the concentration on a route or in a larger market including more than one airport at both endpoints of a route, affects the profile of the booking curve. We find that the booking curve is steeper in more concentrated markets.

Finally, we address the question whether the pricing curve differs across routes or markets that are characterised by a different demand composition, i.e., by a different mix of passengers travelling for leisure, business and visiting friends and family. The estimates reveal that in routes where a more diverse set of customers flies, the relationship between fares and flight occupancy rate is much flatter than in the case of routes with a highly homogenous demand basis. However, the intertemporal profile of fares (i.e., how the fares change as the time of departure approaches) is much steeper in the former routes than in the latter. We conclude that the mix of pricing techniques we observe is largely consistent with a number of prediction from the price discrimination literature.

Economics of Entry Regulation in Tourism Accommodation

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Keywords: Entry Barriers; Entry Regulation; Excess Entry; Life Cycle; Accommodation.

In the last decade several tourism destinations, noticeably some regions in Spain, have implemented regulations to prevent the expansion of tourism accommodation. The rationale under such policies have been environmental, social, or economic impacts in the context of mature destinations. These regulations tend to be approved quickly, with a lack of academic debate on their implications, to avoid strategic behaviour of firms leading to counterproductive effects (increased entry before the approval). As a consequence, the market effect of closing the accommodation market to new entrants has hardly been analyzed. Actually, these measures have had poor results, as they were designed in a context of low expansion of tourism demand and low profitability of accommodation investments. However, it is necessary to increase our understanding on their effects to improve the quality of regulation in the future.

With the help of economic literature from several fields (tourism life cycle, theory of entry, excess entry, contestable markets, theory of regulation, common resources, etc.) the aim of this paper is to provide an overview of the potential implications of restricting entry of new accommodation plants. The issues to be highlighted include: the gains of market power for incumbent firms; the side effects on other activities, particularly those complementary to accommodation (restaurants, leisure, intermediaries, etc.); distributive effects between incumbents and potential new entrants; and finally, the influence of the aforementioned regulation on quality, innovation and competitiveness issues. Following the introduction, in which we explain the specific cases in Spanish regions, in the second section of the paper we analyze the context for establishing entry regulations in the accommodation sector with the help of literature on tourism life cycle and, in particular, with the bibliography related with the consequences of reaching the so called post-stagnation phase in tourism destinations (Knowles y Curtis, 1999; Aguiló et al., 2005; Agarwal, 2002).

In the third section we present two sound explanations for establishing limitations in tourism accommodation expansion. One is environmental, in the case that there is an externality arising from tourism growth (León et al., 2007). The other is related with the theory of excess entry, when the expectations of economic agents are unrealistic (Camerer and Lovallo, 1999). At the end of the section we discuss whether in this context the case for public intervention can be better explained under the public interest perspective (Pigou, 1938) or the framework proposed by the regulatory capture view (Stigler, 1971). In the fourth section we focus on the economics of entry, with special attention on tourism accommodation. Main topics are: entry and exit barriers (Baumol and Willing, 1982; Geroski, 1995; Djankov et al., 2010); complementary and substitutive goods (Buchanan and Yoon, 2000); entry regulation under strategic behaviour (Kim, 1997); and the regulative alternatives and implications of limiting new entrants in the accommodation sector: exceptions, acquired rights and possible flanking policies. The fifth section is devoted to the market consequences of restricting entry in terms of: its effect on the quality of the supply (Ching and Burgess, 1993); the stimulus to innovation (Aghion et al., 2009); and the impact on the competitiveness and welfare of the

economy of the tourism destination (Bertrand and Kramarz, 2010). Finally, in the conclusions we provide a brief summary of our findings.

References

Agarwal, S. (2002). "Restructuring seaside tourism the resort lifecyle". *Annals of TourismResearch*, 29(1):25–55.

Aghion, P., Blundell, R., Griffith, R., Howitt, P., and Prantl, S. (2010). The Effects of Entry on Incumbent Innovation and Productivity. *Review of Economics and Statistics*, 91(1):20-32.

Aguilo, E., Alegre, J. y Sard, M. (2005). "The persistence of the sun and sand tourism model".*Tourism Management*, 26(2):219–231.

Baumol, W. J. and Willig, R. D. (1981). Fixed Costs, Sunk Costs, Entry Barriers, andSustainability of Monopoly. The Quarterly Journal of Economics, 96(3).

Bertrand, M. and Kramarz, F. (2010). Does Entry Regulation Hinder Job Creation? Evidencefrom the French Retail Industry*. *Quarterly Journal of Economics*, 117(4):1369-1413.

Buchanan, J. M. and Yoon, Y. J. (2000). Symmetric Tragedies: Commons and Anticommons. *Journal of Law and Economics*, 43(1).

Camerer, C. and Lovallo, D. (1999). Overconfidence and Excess Entry: An Experimental Approach. *The American Economic Review*, 89(1)

Ching-to, A.M. and Burgess, J. F. (1993). Quality competition, welfare, and regulation. *Journal of Economics*, 58(2):153-173-173.

Djankov, S., La Porta, R., Lopez-De-Silanes, F., and Shleifer, A. (2002). "The Regulation of Entry". *Quarterly Journal of Economics*, 117(1):1-37.

Geroski, P. (1995). What do we know about entry? *International Journal of Industrial Organization*, 13(4):421-440.

Kim, J. (1997). Inefficiency of Subgame Optimal Entry Regulation. *The RAND Journal of Economics*, 28(1).

Knowles, T. y Curtis, S. (1999), "The Market Viability of European Mass Tourist Destinations. A Post- Stagnation Lifecycle Analysis", *International Journal of Tourism Research*,1(2):87-96.

Leon, C. J., Hernandez, J. M., and Gonzalez, M. (2007). "Economic welfare, the environment and the tourist product life cycle". *Tourism Economics*, 13(4):583–602.

Pigou, A. C. (1938). *The economics of welfare*. MacMillan and Co., London.

Stigler, G. J. (1971). The Theory of Economic Regulation. *The Bell Journal of Economics and Management Science*, 2(1):3-21.

Tourist Areas: Examining the Effects of Location Attributes on Prices

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The location of tourism industry requires a base of an existing resource called the core product. This resource is the main reason to visit the area. When we talk about mass sand and sun destinations, beaches can be considered the core product, therefore beaches are the main reason for the tourist's journey to this kind of destinations. Around this core product, tourist areas have been developed. However, these tourist areas have different particular characteristics on their location that can make an area more attractive than other to tourists. These particular characteristics can lead to different willingness to pay. If tourists are willing to pay for some particular location characteristics, it could be interesting to analyze which are the location characteristics that make an area more attractive than another, and therefore, could be sold at a higher price.

The aim of this paper is to deepen in the analysis of the effect that different location attributes have on prices. For these purpose, the hedonic price method is used. This method is based on what is known as the hedonic hypothesis, which considers that people assess a product by the usefulness its characteristics offer and not by the product in itself. When a product is purchased, what is really being bought is a set of characteristics. In the case of a holiday, what actually satisfy a person are the different characteristics that define the holiday. The choice of a holiday in a particular area shows a group of attributes that the tourist considers but do not pay for each of them separately. Using this methodology, holiday prices in tour operator brochures are regressed on a number of package holiday characteristics (location and nonlocation), and this way, the effect on price of a particular attribute can be obtained.

The data used in the paper is from a data set on package tours prices in the Balearic Islands from a sample of British and German tour operators. This data set contains information about prices but also about the different characteristics of the package tours that are described on the brochures. This data set has been completed with several location attributes from each area provided by the *Sistemes d'Informació Geogràfica i Teledetecció* (SIGT) from the University of the Balearic Islands.

Over 2.5M International Passengers in Rhodes! So What?

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Rhodes is the second busiest airport located on an island in Greece and third in the country, as far as international traffic is concerned. The establishment of the European Common Aviation Area in conjunction with the introduction of low cost air services to the island in recent years is likely to change the perception of the destination. Yet it seems that this is not necessarily good news for Rhodes.

In particular, Rhodes has been and still is a very popular tourist destination for over thirty years. Charter airlines have been serving the island for a prolonged period of time carrying travellers and tourists to the destination. Nonetheless, Rhodes has become a victim of tour operators and their vertically integrated charter carriers, as its inbound tourism flows are very largely dependent on them. The tourism market in Rhodes is concentrated in few origin countries and service providers: this double concentration may prove very risky and lead to total dependency and vulnerability of the destination. In addition, low cost carrier services were introduced only recently and on a seasonal basis similar to the pattern followed by charter carriers. In 2010 Ryanair announced its intention to offer yearly round services to Rhodes, but it is rather too early to assess the potential benefit for the island; among others an important issue to investigate is whether this development will prove complementary or antagonistic to the established tour operations.

The paper examines the concentration patterns at both spatial and industrial levels analysing the traffic patterns to Rhodes airport over a 30 year period using measures such as the Herfindahl - Hirschmann and the Gini index. These are calculated at both origin/destination country and city pair levels as well as at a carrier level. Correlations among the indexes are also discussed. The paper concludes with policy suggestions for the future and portfolio strategies to be implemented at the destination.

Multivariate Exponential Smoothing for Forecasting Tourist Arrivals

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In this paper we propose a new set of multivariate stochastic models that capture time varying seasonality within the vector innovations structural time series (VISTS) framework. These models encapsulate exponential smoothing methods in a multivariate setting. The models considered are the local level, local trend and damped trend VISTS models with an additive multivariate seasonal component. We evaluate the forecasting accuracy of these models against the forecasting accuracy of univariate alternatives using international tourist arrivals from eleven source countries to Australia and New Zealand. In general the newly proposed multivariate models improve on forecast accuracy over the univariate alternatives.

Funding Thermal Tourism in Greece and Germany: A Comparative Case Study[f]

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Many European countries have experienced an escalating market growth in thermal activities during the last decades from both a demand and a supply side perspective. Thermal spas have been equipped with modern facilities, combining hydrotherapy treatments with spa services, sports and even cultural activities. Benefits granted by health insurance funds for hydrotherapy significantly affect thermal tourism. Further to the accession of Eastern European countries into the European Union, many thermal spas in the area entered into contracts with health insurance funds in Germany, where thermalism is of major importance. Greece, on the other hand, has not taken full advantage of its thermal tourism market growth potential, in spite of the abundance of related resources in the country.

This paper aims to point out the key characteristics of thermal tourism in Greece and in Germany and suggest a penetration strategy of Greek thermal facilities into the German market through (among others) contractual arrangements with its health insurance funds. The prevailing conditions in six selected spa towns in Greece are analysed based on a systematic analysis of their available infrastructure. Moreover, primary and secondary data research was conducted in the first semester of 2010 among six health insurance funds in each of the two countries to highlight the characteristics of hydrotherapy allowances. The Greek sample was chosen among a population of 18 funds offering thermalism allowances. These six funds cover 80.5% of the total budget of thermalism allowances in Greece. In the case of Germany, the sample has been selected among a population of 158 funds and met a further prerequisite, i.e. the offer of hydrotherapy treatment abroad.

In particular, the research objectives of the secondary data (content) analysis are: (i) to classify hydrotherapy types; (ii) to investigate the requirements for the allowances' approval; (iii) to observe the selection process of thermal spas; (iv) to analyse the policy of covering expenses; and (v) to investigate the contribution of hydrotherapy allowances to the viability of thermal spas. As for the primary research, guided interviews were conducted with officers in health insurance funds. The interviews were based on two semi-structured questionnaires and were carried out face-to-face in Greece and over the telephone in the case of Germany. Aiming to compare both countries and also to confirm the findings of the secondary research the first part of the questionnaires is identical. The second part is different in each country aiming to enrich the findings qualitatively. Regarding Germany, the qualitative research objectives are: (i) to analyse cooperation types between health insurance funds and hydrotherapy resorts abroad; (ii) to investigate the requirements for using hydrotherapy resorts in Greece and (iii) to detect potential barriers of further market development. Likewise, the research objectives in the case of Greece are: (i) to observe the benefit coming from the patronisation of Greek thermal spas by German funds; (ii) to investigate suggestions

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of improvement concerning the thermal spas' facilities and services provided and (iii) to determine policy recommendations.

According to the key findings of the paper and as far as hydrotherapy classification is concerned, Germany offers four types, whereas Greece only one. In Greece allowances are given for treatments during the balneal period only. In both countries the selected thermal spas need to be licensed by the state. Nonetheless, German funds put their emphasis on the service quality provided as well as the effectiveness of the treatment, whereas in Greece the use of natural resources, i.e. thermal or mineral springs is considered important. The expenses claim policy differs in Greece according to the fund, whereas in Germany it is common and prescribed by law. Greek funds consider their contribution to the viability of thermal spas higher than German funds. Approximately, 10% to 30% of ambulatory prevention treatments in Germany had taken place abroad. Four out of six German funds have already entered into contracts with thermal spas in other EU member states. Since German funds focus on service quality, certifications such as the "Europespa seal of approval" could give Greek thermal spas a competitive edge. Nonetheless, the majority of staff in Greek thermal facilities do not speak the German language and this may constitute a potential barrier for future cooperation. In any case, Greek thermal spas should address service quality deficiencies by employing skilled labour. Moreover, various promotional activities should be undertaken to include meetings with fund executives and the organisation of familiarisation trips for members of the tourism media and press.

A Conjoint Experiment for the Economic Analysis of Tourism Demand: The Case of Royal Residences in Piedmont Region (Italy)

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The tourism system is defined as «all economic activities, places, persons and institutions that directly or indirectly are involved in the production and in the consumption of goods and services related to a specific tourist destination» (Costa, Manente, 2000). According to this, the tourism demand is configured as a two-stage decision-making process in which a person chooses to devote a part of his/her leisure time to tourism or to alternative experiences: this phase is called *propensity* and deals with the willingness to consume tourism services or choose between alternative forms of consumption. In this direction, the demand for tourism is closely related to the allocation decisions of the total consumer expenditure.

Dealing with these considerations, the economic analysis of tourism demand is important because it represents the benefits and the «monetary payment made by visitors for the individual services provided» (United Station World Tourism Organization, 2008). In this context, the research develops an analysis of the visitors' profile in the Metropolitan Museum System of Turin. In this regard, the number of visitors in 2009 in the Metropolitan Museum System is about three million and four thousand people, about 70% of tourists in all Piedmont Region. We also know that there is an important visitor's percentage (27%) that enjoys the Royal Residences (*Osservatorio Culturale del Piemonte*, 2010). The research, firstly developed in a PhD thesis, concerns the study of stated preferences of visitors by a Conjoint Analysis experiment. The research goal is the valuation of marginal willingness to pay for a services-package concerning the enjoyment of the Royal Residences System; the test of the robustness and operability of discrete choice models in cultural consumption is another important knowledge goal to support the policy decision making for a tourism supply based on demand oriented scenarios.

References

Costa P., Manente M. (2000), *Economia del Turismo*, Touring Club Italiano, Torino.

Gasca E., Roscelli R., Bravi M., Valutazione dell'esperienza turistico - ricreativa con il metodo del costo di viaggio: una proposta metodologica. *Convegno nazionale SIEV – Società Italiana di Estimo e Valutazione – Qualità del paesaggio e qualità del turismo: valori, analisi, strategie.* Alghero, Italia, aprile, 2010.

Keller K., Kotler P. (2007), *Marketing management*, Paravia Bruno Mondadori Editori, Milano.

Mazzanti M. (2003), *Metodi e strumenti di analisi per la valutazione economica del patrimonio culturale*, Franco Angeli s.r.l., Milano.

McFadden D. (1974), *Conditional Logit Analysis of Qualitative Choice Behaviour*, in: Zarembka P. (ed. by) *Frontiers in Econometrics.* New York, Academic Press

Osservatorio Culturale del Piemonte (2010), *Relazione Annuale*, IRES Piemonte, Torino.

UNWTO - United Station World Tourism Organization (2008), *International Recommendations for Tourism Statistics*, United Nations Publication, United Nations.

Has The Tourism-Led-Growth Hypothesis Been Validated? A Comprehensive Literature Review[f]

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The aim of this paper is to provide a comprehensive literature review on the temporal relationship between tourism and economic growth. Specifically, the role of a such economic activity, as a promoter of short and long run economic growth, is investigated by assessing the so-called Tourism Led Growth Hypothesis (TLGH). To this aim, various methodological approaches have been used, such as VAR, VECM, ARDL, ARCH, GARCH, cross section and panel data. The cointegrating relationship of the economic variables allows one to test the short and long run Granger no-causality. Overall, the empirical findings, emerging from the existing literature, provide evidence that indeed tourism activity drives economic development in all the countries analysed. This outcome further supports the well-established contribution that international tourism has to the economic development.

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Which Is The Role of Temperature In Determining the Geographical Distribution of Tourist Movements During Different Seasons? A Case Study of Coastal Domestic Spanish Trips and An Evaluation of the Global Warming Consequences

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Sometimes it is not easy to understand why the literature of the economic effects of the climatic change has paid so few attention to the tourism industry when is compared with other sectors of much smaller economic significance as, for example, agriculture. There is no doubt that agriculture and tourism represent two high sensitive economic activities to climatic factors. However, the importance of both sectors in GDP terms at world level and, specially, in developed countries, would have to justify a greater concern on the effects that the global warming will cause on tourism.

This relative abandonment of the tourism industry in the economic literature has started to be emended in the climatic change literature where it is possible to identify different work lines on this issue. In this way, a first group of works has centred their attention considering tourism as an economic sector within the context of the Computable General Equilibrium Models, trying to evaluate the consequences of the global warming on the industry. A second group of studies include the analysis of time series, aiming to estimate the response of tourism demand to different special meteorological conditions. Analytically, these time series models in this context do not differ from the traditional ones often used in the tourism literature except for the use of high-frequency data and the inclusion of the meteorological variables as explanatory variables.

A third group of studies have focused on the choice of destination, the distribution of tourism flows and how climatic conditions determine this distribution. From an aggregate point of view different studies have tried to investigate the impact of climate change taking international tourism flows from an origin country as reference or considering the international matrix of tourism flows between countries.

This paper investigates the distribution of Spanish domestic coastal tourism trips so it can be located within this third group of studies. However, in line with recent papers from Eugenio-Martín and Campos-Soria (2010) it uses individual data from a survey estimating a choice model in order to explain which is the role of temperature in determining the geographical distribution of tourist movements during different seasons. By this way, the investigation of domestic tourism and the differences in the role of temperature during different seasons is carried out thus improving the existent literature mainly centered in evaluating international movements and mean annual effects.

Results show temperature being a positive factor determining the probability of visiting a specific coastal destination, but with significant different effects for the high, low and medium seasons. Thus, it is expected that during the high season, the increase in temperatures will have a negative impact on coastal provinces located in the South of Spain while coastal provinces in the North will experience an important increase in their expected choice

probabilities. The impact of climate change during the high season on provinces in the East of Spain shows a lower magnitude and a higher variability from province to province.

Reference

Eugenio-Martin, J.L. and Campos-Soria, J.A. (2010) "Climate in the region of origin and destination choice in outbound tourism demand" Tourism Management, 31(6): 744-753.

Economic, Social and Environmental Impacts of Tourism: A SAM Multiplier Approach

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Tourism is one of the largest and fastest growing industries globally yet its reliance on natural resources makes it crucial a comprehensive analysis of tourism activity that includes environmental resources in order to ensure tourism's long-term survival. This need has been recognised by governments and businesses, with the implementation of policies, plans, projects and even new forms of tourism that take into account the natural environment, for example the development of ecotourism. However, whether or not these efforts have moved the activity towards achieving sustainable goals is still an area of much debate and where further research is needed.

This research will offer a contribution to the pool of recent research on sustainable development measurement, and has as its main objective the analysis of economic, social and environmental impacts concerning tourism activity and its effects on other sectors of the economy. The research questions driving this research are finding out whether or not the economic impacts resulting from tourism outweigh the negative environmental impacts of the activity, and examining if sustainable tourism policies and activities can exert positive effects on the environment and the economy.

Some of the positive environmental impacts of tourism are derived somehow from its positive economic impacts. An increase in tourist expenditure would generate income that can be injected back into the tourism destination, ranging from supporting the maintenance of the current natural, cultural and historical environment, to the development of regeneration and restoration projects. Furthermore, an increase in tourism demand can sometimes increase the awareness of environmental issues within a destination that otherwise would have been ignored, for example in the case of lack of funds for the protection of reefs and beaches. Whether this is good or bad for a tourism destination it would have to be assessed, i.e. the costs of an increase in tourist numbers and the consequent extra pressure unto the natural resources of the destination would need to be smaller than the perceived benefits to the environment of the destination.

The negative environmental impacts have been widely covered and have traditionally been the main focus in the literature. The list is extensive and includes: air, noise, land and water pollution, competition of resources, crowding wildlife, increase in land values, and erosion of landscape. Although at first it looks as though the negative impacts are more significant than any positive impact, this cannot be assumed with certainty unless it can be somehow assessed. However, assessments of environmental impacts can be very subjective as the views with regards to the environment vary widely ranging from views more inclined to the protection of the environment than to the sustaining of the quality of human life.

The study is empirical in nature and will reflect two principal aims: the first aim being the development of a framework to assess the positive and negative economic, social and environmental impacts of tourism. The second aim of the research will be the application of the framework developed to the context of UK.

The purpose of this research is to develop an Extended Social Accounting Matrix (ESAM) that can be used as a general framework for the study of the economy and the environment with a specific focus in tourism. In order to achieve this, firstly the framework for an ESAM that includes economic relationships, social data and the environment will be developed. Then an ESAM will be compiled using UK data.

The application of the ESAM framework would result in the measurement of the interrelationships between environmental, economic and social variables with a specific focus on tourism. The framework in this way expands previous work undertaken in the area of measurement of tourism sustainability, as it includes not only environmental outputs of tourism activity, such as the degradation of the environment, but also the inputs associated, such as water extraction and consumption.

The social effects of the framework are contained within a basic SAM. A SAM is intended to explain and portray the generation of income by activities of production and the distribution and redistribution of income between social and institutional groups. The compilation of a SAM has as its main objective to reflect the various interdependencies in the socioeconomic system as a whole by recording, as comprehensively as it is practicable, the actual and imputed transactions and transfers between various agents in the system[*]. The compilation of data is usually for a determined period usually of one year.

The UK ESAM has four key sources of data, the Supply and Use tables, Household income and expenditure information, the Tourism Satellite Account and Environmental Accounts. Some of the results found includes tourism generating 10% of greenhouse gas emissions from total consumption of tourism related expenditure, and how households are not affected (either positively or negatively) by tourism; the income from tourism to households do not change in proportion to the distribution of income from other sectors of the economy.

The structure of the ESAM can be modified as to introduce the different complexities of each economy interested in its application. This is a particularly significant advantage of this framework as the results derived from the analysis of a particular ESAM would be adequate for the economy in question. Thus supporting the set up of policies that would be adequate for each individual case rather than just following international policies that do not account for the differences in economic structure, economic development and the different social and environmental needs. The understanding of how economies are interrelated with society and the environment specifically will be of more benefit to the further and sustainable development of economies rather than focusing on reducing only the negative environmental costs associated with tourism or any other economic activity.

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[*]Round, J. (2003a) Constructing SAMs for Development Policy Analysis: Lessons Learned and Challenges Ahead, Economic Systems Research 15 (2), pp.161-183.

The Factors Driving Leisure Repeat Visit Behaviour at Countryside in the United Kingdom[f]

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This paper explores the underlying constructs that influence repeat leisure visits and how these constructs can be used to predict countryside visit intentions for UK countryside visitors for leisure purposes.

Two issues have been investigated for this study. The first issue is that a new algorithm referred to as a clamping technique, using multilayer perceptron (MLP) neural networks, can be used to determine the relative impact factors on visit loyalty. This research has shown that the proposed algorithm achieves better results than those obtained from logistic regression and the weight scores calculation of MLP neural nets.

The second issue involves the underlying drivers of leisure visit behaviour, experimental results have suggested that the media and parents/school play a critical role in evolving attitudes towards the countryside. The results indicate the importance of these agencies and a relationship between the level of connectivity and involvement with countryside activity.

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Clashes and Compromises: A Contractual Solution in a Tourism Destination[f]

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We set up a theoretical model to solve a distributive problem between two agents which have clashing interests about the allocation of a limited natural resource (i.e. a common good).

The linear optimization problem allows two solutions: a corner solution (clash) and an internal solution (compromise). If the leader is a tourism destination manager (public agent) and the follower is a building firm (private agent) acting in tourism sector, the destination manager can use three different economic policies: laissez faire, taxation or "detaxation" policy, i.e. taxation with the addition of a tax exemption on reinvested profits (contractual solution).

We find that a compromise solution (the contractual solution) may be the favourite by a public agent having the discretionary power to regulate conflicts. To assess the different policies' pay-offs we apply the model to a framework of tourism economics in which the destination manager has to choose how to allocate the limited land between either private holiday accommodations (second homes) or hotels. We can obtain both a corner solution, in which we have extreme choices of only holiday houses or only hotels, and an internal solution, in which we have a linear combination of them.

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[f]Full paper available on memory stick.

Capital City Museums and Tourism Flows: An Empirical Study of the Museum of New Zealand Te Papa Tongarewa[f]

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Cultural heritage is increasingly being employed as an essential ingredient to promote tourism products and destination imaging strategies, and tourism has been integrated into cultural development strategies as a means of supporting cultural heritage, especially in urban areas. As stated in the OECD's (2009) recent publication on tourism and culture, 'the increasing use of these assets to market destinations is likely to figure strongly in the tourism product and promotion of most regions, even those which have traditionally relied on their natural assets, such as sun and beach or mountains, for their attractiveness'. Museums in particular are being 'reconceptualised as leisure resources and tourist attractions' with the potential to contribute to the economic development of local communities through the crucial role that they play in the success of a tourism destination, where they act as key motivators for enhancing tourist flows (Foley & MacPherson, 2000; Kotler & Kotler, 2000; Leask, 2010). Cities are building new museums and promoting existing cultural institutions as a means of urban regeneration, re-imaging post-industrial city landscapes to attract both residents and tourists (Brabazon, 2009; Bradburne, 2001; Chang, Milne, Fallon, & Pohlmann, 1996; Kirchberg, 2007). The Museum of New Zealand Te Papa Tongarewa (Te Papa) in Wellington encapsulates many of these dynamics. Claims have been made that it has given tourism in the city – New Zealand's capital – a major boost (Pearce, Tan, & Schott, 2004), but these claims have so far not been corroborated by any solid empirical analysis. This paper addresses this gap by examining the impact of such a large cultural attraction on tourist presence in the world's southernmost capital. In particular, it seeks to quantify the impact of Te Papa on capital city tourism in terms of the number of guest arrivals, overnights, occupancy rates and average length of stay in three types of short-term commercial accommodations (hotels, motels and backpackers).

We first review the existing literature on urban cultural tourism and museums as visitor attractions, before looking at studies focusing specifically on evaluating the economic impact of museums. We then discuss the evolution of Wellington as a capital city destination and provide background information on Te Papa. This is followed by the empirical specification of the current study, the results and conclusions.

Our results have clearly shown from a demand perspective the positive role that the new museum of New Zealand Te Papa Tongarewa has played in the growth of tourism in terms of guest arrivals and overnight stays in the commercial accommodation sector in Wellington. Evidence supporting the crucial link between tourism growth and visitors to Te Papa has been found in several regressions in which the dependent variables (guest arrivals, overnight stays,

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occupancy rates and length of stay) by commercial accommodation type (hotels, motels and backpackers accommodation) are regressed against the number of visitors to Te Papa. The estimated coefficients are highly consistent with the notion that Te Papa has had a positive impact on guest arrivals and overnight stays in short-term commercial accommodation in the city. These do not explicitly support causality one way or another, but they are consistent with causality from Te Papa to tourism in the city. These findings are consistent with the findings of previous literature, which conclude that cultural attractions, such as museums, can be essential inputs in developing and promoting the tourism industry in urban areas. Te Papa is clearly the city's leading cultural site in attracting tourist arrivals.

This study also examines whether Te Papa visitors have influenced the average length of stay of tourist arrivals in the city. In almost all the cases, our estimated coefficients for the average length of stay are not significant, suggesting that visitors to Te Papa have not impacted on the length of stay in short-term commercial accommodation. This finding suggests that one large, flagship attraction such as Te Papa, while it may help to attract more visitors to a destination, will not necessarily lengthen the stay of tourist arrivals. In the case of Wellington, this may be because the city still largely functions as a gateway or hub, as both Lohmann's (2006) and Pearce (2007) have found, and the addition of a visit to the national museum does not significantly waylay tourists in the city. This finding also adds weight to arguments that one 'mega' attraction is not sufficient to sustain a destination in the long term, but that a collection of complementary attractions or a 'cultural mosaic' of both formal and informal culture are required to give tourists a reason to keep coming and to come for longer (Kotler, 2001; Leask, 2010; Ooi, 2002). For Wellington, this may mean a continued focus on events, boutique shopping, restaurants and café culture as augmenting the 'Te Papa experience', as well as raising the profile of some of the other attractions the city has to offer, such as the local museum and art gallery, historic buildings and natural heritage sites.

References

Brabazon, T. (2009). Brand Wellington: When city imaging is GLAM'ed: A personal view. *Place Branding and Public Diplomacy, 5*(4), 260-275.

Bradburne, J. M. (2001). A new strategic approach to the museum and its relationship to society. *Museum Management and Curatorship, 19*(1), 75-84.

Chang, T. C., Milne, S., Fallon, D., & Pohlmann, C. (1996). Urban heritage tourism: The global-local nexus. *Annals of Tourism Research, 23*(2), 284-305.

Foley, M., & MacPherson, G. (2000). Museums as leisure. *International Journal of Heritage Studies, 6*(2), 161-174.

Kirchberg, V. (2007). Cultural consumption analysis: Beyond structure and agency. *Cultural Sociology, 1*(1), 115-135.

Kotler, N., & Kotler, P. (2000). Can museums be all things to all people: Missions, goals, and marketing's role. *Museum Management and Curatorship, 18*(3), 271-287.

Kotler, N. (2001). New ways of experiencing culture: The role of museums and marketing implications. *Museum Management and Curatorship, 19*(4), 417-425.

Leask, A. (2010). Progress in visitor attraction research: Towards more effective management. *Tourism Management, 31*, 155-166.

Ooi, C-S. 2002. *Cultural Tourism & Tourism Cultures: The Business of Mediating Experiences in Copenhagen and Singapore*. Copenhagen: Copenhagen Business School.

Organisation for Economic Co-operation and Development. (2009). *The impact of culture on tourism*.

Pearce, D. G. (2007). Capital city tourism: Perspectives from Wellington. *Journal of Travel and Tourism Marketing, 22*(3), 7-20.

Pearce, D. G., Tan, R., & Schott, C. (2004). Tourism distribution channels in Wellington, New Zealand. *International Journal of Tourism Research, 6*, 397-410

Costing Footpath Repair: A Case Study in the Peak District National Park, England

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Walking is a very popular tourism activity in upland environments. However, the physical deterioration of footpaths is an increasing problem facing managers of protected areas worldwide. Footpaths are an essential recreation and tourism resource, which require appropriate maintenance and protection. Impacts such as soil erosion, footpath widening, incision, braiding and the formation of new unplanned footpaths can damage an areas' natural and recreational value, as well as being expensive to repair and affecting the quality of the visitor experience. Correct management of footpaths can significantly reduce the recreational pressure on the surrounding environment and wildlife, and mitigate other costly consequences such as increased sedimentation in water catchments, causing reduced water storage and reduced drinking water quality.

The Peak District National Park (PDNP) is the most visited National Park in England, and the footpath network is its most important and well-used tourism resource. Managing footpath erosion is a significant challenge for the PDNP, since costs are significant and funds for resources are difficult to secure and vary year-on-year.

A number of management techniques exist for mitigating footpath erosion, including, educating visitors, limiting car parking, re-routing people from areas prone to erosion, using natural barriers, and increasing the carrying capacity of vegetation. This paper focuses specifically on the costs of the physical repair of a footpath to damage. Costs of footpath repair are investigated through two case study footpaths, representing typical repair works carried out on footpaths in the PDNP. These two case studies illustrate that the costs of footpath repair are significant, equating to around £30,000 for each path, and that repair is complex: it does not only include repairing the physical path surface, but also involves creating drainage, re-seeding, and landscaping, in addition to the provision of visitor facilities to improve access such as gates and easy-accessible paths for restricted mobility users, labour and equipment costs. Using geospatial and statistical analysis, the present cost of repairing all footpaths is then estimated for the whole of the PDNP.

An analysis of climate change impacts reports on how climate change will increase the incidence of footpath erosion, particularly due to the projected increased frequency and intensity of winter rainfall. Thus, the extent of footpath repair required and the associated costs of repair will also increase. The costs of climate change impacts and the benefits of implementing adaptation options are then investigated through a costings assessment of footpath repair.

The costings assessment highlights the significant underinvestment in footpath repair at present, and the clear lack of adequate resources to tackle the problem of footpath erosion effectively. Significant investment is required now to repair footpaths and to implement monitoring and maintenance programs, since costs will increase in the future with climate change. Thus, a re-focus in the National Park's Priorities is required, to place more emphasis on the importance of footpath management, and a re-structuring of resources is required to

allocate more to managing the current problem. Finally, wider implications regarding who should pay for tourism impacts and landscape repair are also considered and discussed.

The Willingness to Pay for Frills in "Low Cost" Airline Companies[f]

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The success of low cost companies is based on the economic principle that there is no lunch for free. Accordingly, the low cost business has been developed as a transport service without frills. Although their operation is successful, there is evidence that the absence of some services passengers usually have on traditional operators appears to be a competitive disadvantage of low cost companies, being a cause of dissatisfaction. In this paper, we examine individuals' preferences for the main attributes defining the service offered by the airlines, by means of a stated preference experiment (SP). The SP experiment aims at allocating the attribute levels of the services to choice situations, with an orthogonal design. Considering the heterogeneity of preferences of passengers, we obtain the willingness to pay to have extra services in low cost carriers under each scenario. The empirical research is supported by a randomly-collected sample of 525 passengers travelling to the Algarve for leisure purposes throughout the Spring period of 2009, using low cost carriers. Empirical results reveal not only the implicit values of service attributes, but also the preference differences in attributes between passengers. Policy and management implications of these results are discussed.

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The Price Elasticity of Tourism Products in South Africa

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Keywords: Tourism Demand, Price Elasticity, South Africa, Almost Ideal Demand System

The study of tourism demand has played a central role in tourism economics and management. A series of surveys (Crouch 1994; Lim, 1997a, 1997b, 1999; Li *et al*., 2005; Song and Li, (2008) give an overview of its main determinants as well as the most adequate econometric techniques for modelling and forecasting. It is observed that most studies have taken a macro (or aggregate) approach by analysing price elasticities and income elasticities of tourism demand in a destination from a set of origin markets (inbound tourism) or from one origin to a series of destinations (outbound tourism).

However, in the current context of globalisation, there are an increasing number of emerging destinations which raises competitiveness concerns and necessitates an in-depth examination of the drivers and characteristics of tourism demand. In this context, Divisekera (2009) investigate particular price elasticities and income elasticities of a variety of tourism products in Australia. Whereas Cortés-Jiménez and Blake (2010) compare tourism demand models modelled separately by purpose of visit and nationality pairings against aggregate tourism demand models, thereby obtaining a broader view of elasticities by type of tourist travelling to the UK. Other studies of tourism demand using a micro approach have not been found.

This research investigates price and expenditure elasticities of tourist spending on different categories of tourist goods and services in South Africa. Tourism to South Africa has grown at an average annual rate of 8 percent between 1992 and 2008, making South Africa one of the fastest growing destinations worldwide. Yet, situated on the southern tip of Africa, it remains a long-haul destination for most of the traditional tourist nations, such as Germany, the United Kingdom and the USA, and price competitiveness remains a concern. In fact, an investigation by Saayman and Saayman (2008) shows that tourists from all other continents are sensitive to prices in South Africa. Understanding the price sensitivity in terms of tourism products for non-African markets is therefore a key concern for tourism business future and local authorities' agendas, since competition for tourists from Europe, the USA plus an increasing number of emerging destinations is strong.

We estimate an almost ideal demand system (AIDS), introduced by Deaton and Muellbauer (1980) with the assumption that tourists allocate their budget among a variety of goods and services attached to tourism. This contrasts with the common approach of having destinations as the set of choices for the tourist (e.g. Han *et al.*, 2006; Cortés-Jiménez *et al.*, 2009). As such, we follow Divisekera (2009) for Australia and a methodological discussion by Feenstra (2010). It expands on the Australian paper by not only allowing tourists to base their spending decision on price information available in South Africa, but also on the real effective price between South Africa and their home country.

Finally, we employ monthly data from January 2003 to December 2008 on tourist spending in South Africa in food, transport, accommodation, leisure and shopping for five markets, namely France, Germany, the Netherlands, the UK and USA.

References

Cortés-Jiménez, I. and Blake, A. (2010) "Tourism Demand Modeling by Purpose of Visit and Nationality", *Journal of Travel Research*, DOI: 10.1177/0047287510363615

Cortés-Jiménez, I., Durbarry, R. and Pulina, M. (2009) "Estimation of outbound Italian tourism demand: a monthly dynamic EC-LAIDS model" *Tourism Economics*, Vol. 15 (3), pp. 547-565.

Crouch, G.I. (1994) "The study of international tourism demand: a review of findings", *Journal of Travel Research*, Vol. 33, pp. 12-23.

Deaton, A.S. and Muellbauer, J. (1980) "An Almost Ideal demand system", *American Economic Review*, 70, pp. 312–326.

Divisekera, S. (2009) "Economics of tourist's consumption behaviour: Some evidence from Australia", *Tourism Management*, available online doi:10.1016/j.tourman.2009.07.001, pp.1-8.

Feenstra, R.C. (2010) "New products with a symmetric AIDS expenditure function", *Economic Letters*, Vol. 106, pp. 108-111.

Han, Z., Durbarry, R. and Sinclair, M. T. (2006) "Modelling US tourism demand for European destinations", *Tourism Management*, Vol. 27 (1), pp. 1-10.

Li, G., Song, H. and Witt, S.F. (2005), 'Recent developments in econometric modelling and forecasting', *Journal of Travel Research*, Vol. 44, pp. 82-99.

Lim, C. (1997a) "An econometric classification and review of international tourism demand models", *Tourism Economics*, Vol. 3, pp. 69-81.

Lim, C. (1997b) "Review of international tourism demand models', *Annals of Tourism Research*, Vol. 24, pp. 835-849.

Lim, C. (1999), 'A meta-analytic review of international tourism demand", *Journal of Travel Research*, Vol. 37, pp. 273-284.

Saayman, A. and Saayman, M. (2008) "The determinants of inbound tourism to South Africa", *Tourism Economics*, Vol. 14 (1), pp.81-96.

Song, H. and Li, G. (2008) "Tourism demand modelling and forecasting – A review of recent research", *Tourism Management*, Vol. 29, pp. 203-220.

High Skills, High Growth: Is Tourism An Exception?[*]

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Keywords: Economic Development, Tourism, Human Capital.

JEL classification: I21, O15

Despite the emphasis placed by growth models on technological progress, recent empirical evidence shows that tourism, a low-skill/low-tech sector and one of the fastest growing industries in the world, may offer a beneficial specialization strategy for growth. This paper focuses on a balanced panel of 72 countries (1980-2005) and confirms that the tourism sector indicator is always positive and significant in growth regressions. Moreover, results also imply that increased education contributes to growth and that the role of the tourism sector is significantly larger in countries with higher aggregate levels of human capital. Our main results are robust to the inclusion of additional variables and to the use of alternative estimators in the regression analysis. Overall, this study confirms that the expansion of a low-tech sector such as tourism may be a valuable strategy for development. But it also suggests that an increase in human capital endowments is always beneficial, even when the development strategy focuses on the expansion of a (successful) unskilled sector.

Estimating Hotel Development Gaps in Turkey

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Purpose – The purpose of this paper is to introduce an econometric approach that allows the identification of undersupplied locations or hotel development gaps in Turkey.

Literature review – The literature currently offers two approaches that could be utilised to estimate hotel development gaps: the Micro (*Algebraic) (Short-run Gap)* and the *Macro (Econometric) (Longrun Gap)*.

The *Micro (Algebraic) Approach* can be expressed as follows:

Equation 1

$$GAP = \left[\sum_{1}^{k} \sum_{1}^{m} (Occ_0 + Q_L) \, x \, (1 + g_m)^t \right] - S_f$$

Where: GAP is the hotel development gap,

Occ_0 is the total occupied rooms during the base year,

Q_L is latent demand including unaccommodated and induced demand,

g is growth rate for the market sector *m*,

S_f is future room supply (existing – removed stock + new supply additions + pipeline),

m denotes the market segment (leisure, business, meeting, etc),

k denotes properties in the competitive set (at the micro level), and

t is the forecast year

Obviously the decision rule here is:

GGP Sign	Indication
+	Opportunity for building extra supply without affecting the stabilised occupancy rate in the area. Two important caveats should be addressed when calculations are made: whether the market has actually achieved stabilised occupancy rate, and the period required for new supply additions and the pipeline to actually achieve the stabilised occupancy rate
-	Oversupplied market and developers should refrain from developing new hotels

See Rushmore (1997) for the computations required to estimate the demand term in Equation 1.

The *Micro approach* is not without its own problems. deRoos (1999) found that short-run gaps (arrived at utilising micro analysis) tend to overestimate future supply requirements. Peister (2004) finds that Rushmore's approach is subjective and not living up to basic economics theory of supply and demand. deRoos (1999) introduces the *Macro (Econometric) Approach* specifically to estimate Hotel Development Gaps in USA. He estimated "Natural Occupancy Rates (NOR)" (long utilised in the real estate and urban economics traditions to estimate property development gaps) for the hotel industry in 24 Metropolitan Statistical Areas in USA for the period between 1987 and 1997. He found that the U.S. is under-supplied by 51,000 rooms. In order to estimate NOR, deRoos estimated the following equation:

$$\textbf{Equation 2}$$
$$\Delta ADR = b_0 + b_1 \Delta CPI^* + b_2 OCC^* + error$$

Where: ΔADR^* is the monthly change in seasonally adjusted real ADR,

ΔCPI^* is the monthly change in seasonally adjusted real CPI,

OCC^* is the monthly change in seasonally adjusted occupancy rate, and

Error is a randomly distributed error term

NOR is calculated as:

$$\textbf{Equation 3}$$
$$NOR = -\left(\frac{b_0}{b_2}\right)$$

Peister (2004) presented another econometric effort to estimate latent demand. He introduced elaborate economic modelling. He estimated: (1) the magnitude of supply-side additions utilising OLS procedure, (2) its time-frame utilising the distributed lag analysis, and (3) causation between demand and occupancy using Granger test. Unfortunately, his findings were only based on simulated data. Data requirements are high and time series present a real challenge to find in many parts of the world.

Design/methodology/approach – Tsai *et al* (2006) introduced a model to estimate the hotel room supply in Las Vegas. It was not estimated explicitly within the development gap context. However, this paper estimates a similar model for the 81 Turkish districts with the primary objective of estimating hotel development gaps. Only more variables are introduced and tested. Also, rather than utilising time series data, the paper utilises cross section price, demand and supply data from 2009 to estimate the hotel room supply equation. Growth variables are included to pick up long term trends. The research will estimate the following function:

$$Q_s = f(P, OCC, CPI, AREA, TYPE, DIST, SERV, NEWBUILD, STOCK, CONC, CHAIN, INT, EMPL)$$

Where: Qs is the hotel rooms stock in the area in 2009

P is the weighted average published room rate

OCC is the district occupancy rate

CPI is the average change in CPI hotels, cafes and restaurants during the last decade

AREA is the area of the district in km$_2$ excluding water surface area

TYPE is the type of destination (resort, rural or urban)

DIST is the distance from closet airport

SERV is the percentage of service industry in the province

NEWBUILD is the average change in new hotel additions during the last decade

STOCK is hotel stock per capita

CONC is the level of concentration of 4- or 5-star hotels relative to the total stock (expressed as percentage)

CHAIN is the percentage of chain affiliated hotels to total stock

INT is international visitors per unit of district-level hotel stock

EMPL is employment growth in the province (over last 10 years)

Stepwise regression will be utilised to improve the specification of the estimated model. The Hotel Development Gap for each district is equal to regression residuals. Positive residuals show that the district is undersupplied. Negative residuals show that the district is oversupplied.

Research limitations/implications – The proposed model in this paper overcomes problems inherent in time series (such as autocorrelation and lack of longitudinal data). It also avoids theoretical problems inherent in Rushmore's model. However, the model does not build on long term trends/cycle.

Practical implications – At this stage, this paper is not intended to provide the most accurate answer to hotel developers and operators in Turkey or offer the ultimate methodology for estimating development gaps. Rather, the paper presents an alternative methodology building on the existing body of literature. Additionally, it provides at least an indication of potential or priority hotel development areas in Turkey worthy of further investigation.

References

Corgel, J. (2003). Predictive Powers of Hotel Cycles. *Real Estate Issues*, *28*(4), 32-36. deRoos, J (1999). Natural Occupancy Rates and Development Gaps: A Look at the U.S. Lodging Industry. *Cornell Hospitality Quarterly,* 40 (2), 14-22.

Gallagher, M., & Mansour, A. (2000). An Analysis of Hotel Real Estate Market Dynamics. *Journal of Real Estate Research*, *19*(1/2), 133.

Lee, C. (2010). The dynamic interactions between hotel room rates and international inbound tourists: Evidence from Singapore. *International Journal of Hospitality Management*, *29*(4), 758-760

Peister, C (2005). The "Development-Drives-Demand" Equation: An Econometric Approach For Quantifying The Effects Of Latent Demand Within Lodging Markets. Journal of Hospitality, Tourism & Leisure Science, August, 1-30.

Qu, H., Xu, P., & Tan, A. (2002). A simultaneous equations model of the hotel room supply and demand in Hong Kong. *International Journal of Hospitality Management*, *21*(4), 455-462. Rushmore, S. (1997). Hotel and Motels: A Guide Market Analysis, Investment Analysis, and Valuations. Chicago, Illinois: Appraisal Institute.

Tsaia, H; Kanga, B; Yehb, R and Suha, E . (2006). Examining the hotel room supply and demand in Las Vegas: A simultaneous equations model. *International Journal of Hospitality Management*, *25*(3), 517-524.

Wheaton, W., & Rossoff, L. (1998). The cyclic behavior of the U.S. lodging industry. *Real Estate Economics*, *26*(1), 67-82.

Single and Multiple Destinations Tourism Trips in Brazil– Understanding Tourists Choices[*][f]

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Destination choice is a major issue in tourism research. Although multidestination tourism trips (MTTs) frequently account for a significant share of total trips, most tourism demand studies have assumed that all trips visit a single destination. This assumption may be misleading since destination choices might be interdependent when there is transport cost correlation due to the spatial organization of destinations or when destinations display cumulative attraction. This paper aims to assess individual determinants of MTTs among international tourists visiting Brazil in order to provide helpful information for the tourism industry and public management. Two different types of measures of the MTTs behavior are modeled. First, the number of destinations visited on a single trip is modeled by a censored negative binomial model. Second, four different travel dispersion measures are proposed in order to provide a more informative description of MTTs. These measures are modeled by a double-censored linear regression. Besides previously studied determinants, some new explanatory variables are assessed for the first time in this paper, such as education level, type of accommodation and season. Most results were supportive of previous theoretical argumentations and empirical findings. Some results enlightened conflicting arguments proposed by previous researchers, especially those regarding the effect of party size, and monetary and time constraints.

Optimum Tourism Supply: Concept and Issues

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Tourism development is not always welcome by all the stakeholders. Further development may bring positive and negative impacts to the destination. Such development will increase tourism supply and depending on the dynamics of the demand it will have an impact on prices and certainly on congestion. Incumbent hoteliers are usually reluctant to such increase, whereas local population preferences depend on the level of employment and welfare. On the one hand, increases in congestion may jeopardize the quality of the current tourism experience, but on the other hand, more tourists may bring (or not) more economic benefits. This decision is complex because the consequences are not always straightforward and are subjected to conflict of interest. From the viewpoint of a benevolent policymaker, a proper analysis is required. One way to approach it is to consult experts and follow their advice, or alternatively, consult the stakeholders and follow a participatory decision making process.

This paper proposes a methodology to estimate a joint set of compatible thresholds that all the stakeholders are willing to accept in relation to a particular tourism development planning. The method is based on dominance-based rough set theory (DBRST). The core of DBRST is the ability to deal with inconsistency distinguishing between certain and doubtful knowledge. The main output of the method is a set of decision rules, which may consider a wide set of criteria, such as employment, congestion, economic growth, environmental degradation and cultural impacts among others. One of the advantages of the methodology is that it takes into account multiple criteria but it does not require of any weighting, which is one of the main limitations of multicriteria analysis.

It is based on a survey concerning multicriteria decision making. Three different stakeholders are approached: Local population, local tourists and international tourists. Additional information concerning the opinion of current hoteliers is also gathered. DBRST is applied to each stakeholder such that a threshold for acceptable tourism development is obtained from the three of them. Finally, the joint set is obtained and presented to the policymakers as valuable information for participatory decision making.

Off-Season Tourists and the Cultural Offer of a Mass-Tourism Destination: The Case of Rimini[*][f]

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This paper assesses the potential implications on off-season tourism of enhancing the cultural offer of Rimini, a popular Italian seaside holiday destination. Rimini, a city of about 130,000 people hosts a total of around 12 million overnight stays, 10 million of which are concentrated in the summer months. In the last twenty years or so, Rimini has been undergoing a policy of deseasoning, which mainly pivots around business tourism (a new fair quarter and important conference venues have been built) and cultural tourism (the city has been investing on both its cultural heritage and art exhibitions).

This assessment is carried out through discrete choice experiments submitted to a sample of about 800 off-season tourists, that is, tourists who visited Rimini outside the summer months. Since tourism can be viewed as a composite good, which overall utility depends on the arrangement of the component characteristics, the choice experiments allow to disentangle the importance and the willingness to pay of tourists for different levels of the holiday's characteristics.

The choice model incorporates as attributes a number of possible changes to actual tourism features (which are also the subject of public debate), including them in hypothetical alternative "holiday packages". The conditional logit analysis of the choice experiments can highlight the potential synergies and trade-offs between cultural and business tourism. Moreover, the methodology and the structure of the questionnaire allow a partial comparison of our findings with results stemming from two previous studies carried out in Rimini, respectively on summer tourists and on residents. Such comparison highlights synergies and trade-offs between off-season tourists, summer tourists, and residents.

The Impact of Fear of Flying on Flight Choice – Choice Model with Latent Variables

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The share of the population suffering from Fear of Flying (FOF) has increased over the last decades although statistics tells us that air-travel is the safest mode of travelling. Since avoiding air travel in the era of globalized economy entails career- and social costs, people take different measures to overcome or reduce their fear such as sedatives or workshops dealing with FOF. We claim that the level of FOF among passengers affects their choice of itinerary. Passengers with FOF seek flight attributes that may be primarily reassuring but not necessarily change the extremely low actual risk.

We present a model of flight itinerary choice, which is based on the framework of consumers' discrete choice behavior. The itinerary choice depends on the attributes of the alternative itineraries, such as their cost, schedule and the carrier, and on characteristics of the passenger, such as age and gender. Within this framework we incorporate FOF as a psychological variable. However, FOF is a latent variable not directly observed in the data. It is indicted on by the responses to a fear scale. The likelihood function formulation accounts for this and allows joint estimation of all the model parameters including those in the utility functions of the alternative itineraries, the FOF indicators and the latent fear variables.

We assess that air passengers suffering from high levels of FOF employ also other measure, namely, choosing flights with "fear alleviating" attributes. We establish that the level of FOF of individuals affects the value they place on attributes of alternative flight itineraries and affect their choice of itineraries accordingly. We show that the preference for home carriers, scheduled carriers and direct flights increase with the increase in the level of FOF the respondents suffer.

Using a Supply-Side Survey to Establish Tourism Shares in Tourism Satellite Account Compilation: Some Experiences from Romania*

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Keywords: Tourist Use of Services, Tourism Shares, Tourism Satellite Accounts

One of the peculiar aspects of Tourism Satellite Account (TSA) compilation is the calculation tourism shares. The TSA is a statistic standard officially promoted by United Nations World Tourism Organization (UNWTO) and other international organizations such as OECD and Eurostat by which the economic contribution of tourism is calculated. The main recommendations of developing a TSA are found in the document Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF) where it is stated that, one way for the value of tourism shares to be established is "*from direct information coming from producers and suppliers (information on their categories of customers and their corresponding market share)*" (TSA: RMF, 2010).

In order to do so, a pilot survey was carried out in Romania in 2010. The aim was to research a so called "tourist use" of services provided by some tourism industries in order to see the degree of dependence of these industries on tourism. More precisely, the purpose was to distinguish between tourist clients and non-tourist clients of enterprises belonging to tourism industries and collect this kind of data.

The survey had a modular approach and initially for each of the 10 tourism industries proposed by UNWTO (for international comparability)[1], a questionnaire has been drafted. However it has been determined that this approach is more suitable for some tourism industries than other industries among the 10th tourism industries. Therefore the survey only focused on 4 tourism industries namely *Accommodation services for visitors*, *Air passenger transport*, *Transport equipment rental services* and *Travel agencies and other reservation services* to which the category of *Museums* as part of Cultural industry was added.

A sample of enterprises belonging to these tourism industries was established using the Romanian Business Register carried out by National Institute of Statistics. However in case of the Museums, finally only an exhaustive list of public museums provided by Culture statistics Division was used. The sample was extracted for a total collectivity of enterprises with homogenous activity (having either main activity or a secondary activity related to tourism). The sample was stratified by economic activity of enterprises and number of employees. All enterprises having more than 20 employees were included in the survey.

The approach was to gather data either only for non-tourist use of services or only for tourist-use of services or for both ways (see table 1). Practically this was done by specific questions found out in the questionnaire for each tourism industry. For example in case of

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[1]The 10th tourism industries proposed by UNWTO for international comparability are: Accommodation for visitors, Food and beverage serving activities, Railway passenger transport, Road passenger transport, Water passenger transport, Air passenger transport, Transport equipment rental, Travel agencies and other reservation services, Cultural activities, Sport and recreational activities.

Accommodation services and *Travel agencies* we concluded that it is easier to request data about non-tourist use of services, these industries being "the most intensive industries in tourism". On the opposite way, gathering data about tourist use of services for *Transport equipment rental* industry and *Museums* category was considered as a proper approach. A mixed approach was used for Air passenger transport industry.

Table 1. Approaches to researching *tourist use of services* provided by tourism industries in Romania

Tourism industries	CAEN/NACE* Rev. 2 code	Equivalence with ISIC** Rev. 4	Researching tourist use of services	Researching non-tourist use of services
Accommodation for visitors	5510, 5520, 5530	5510, 5520		x
Air passenger transport	5110	5110	x	x
Transport equipment rental	7711	7710	x	
Travel agencies and other reservation services	7911, 7912, 7990	7911, 7912, 7920		x
Museums	9102, 9103	9102 (part of)	x	

* Classification of Activities in the National Economy in Romania/Statistical Classification of Economic Activities in the European Community

** International Standard Industry Classification of all Economic Activities by United Nations Statistics Division

The results obtained were expressed in the so called *share of tourist use of services*. As expected, these shares registered high values for Travel agencies (95%) and Hotels (93%), industries which are *par excellence* a tourism activity. The share is also high for Air passenger transport industry (88.5%) and Transport equipment rental (74.4%). Instead, a lower share could be seen for Museums category (45.0%).

Another important indicator obtained in the survey was the percentage breakdown of total revenues by types of customers (foreign customers, individuals from Romania, companies,

institutions from Romania) (see Figure 2). This was necessary to double-check the data regarding tourist use of services.

Figure 1. Shares of tourist use of services for some tourism industries in Romania, 2009
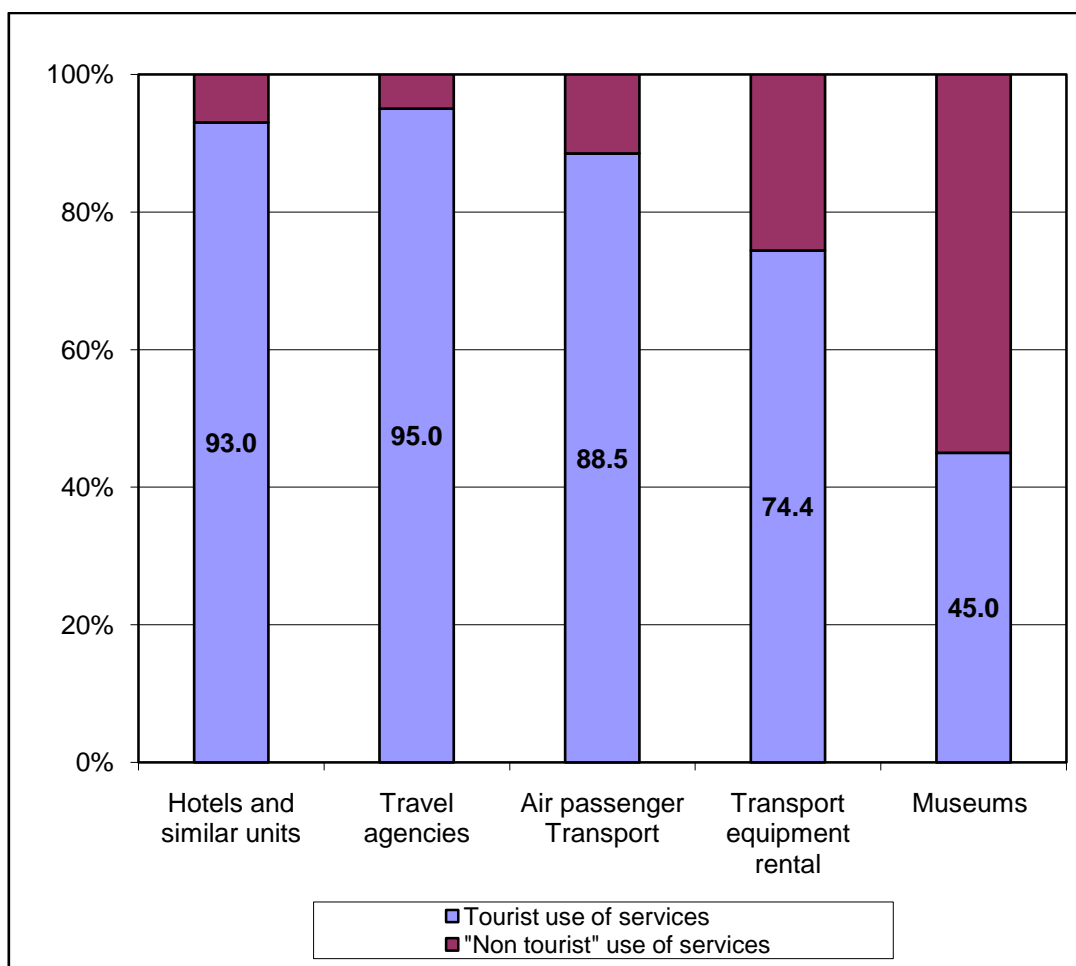
Another important indicator obtained in the survey was the percentage breakdown of total revenues by types of customers (foreign customers, individuals from Romania, companies, institutions from Romania) (see Figure 2). This was necessary to double-check the data regarding tourist use of services.

However, the low response rate for some industries in the survey could raise certain issues related to data reliability. In this regard, it has to be mentioned that the final data were weighted only for accommodation sector and museums, as for the rest of tourism industries, the responses were few compared with initial number of enterprises included in the survey.

Figure 2. Percentage breakdown of total revenues by types of customers for some tourism industries in Romania, 2009
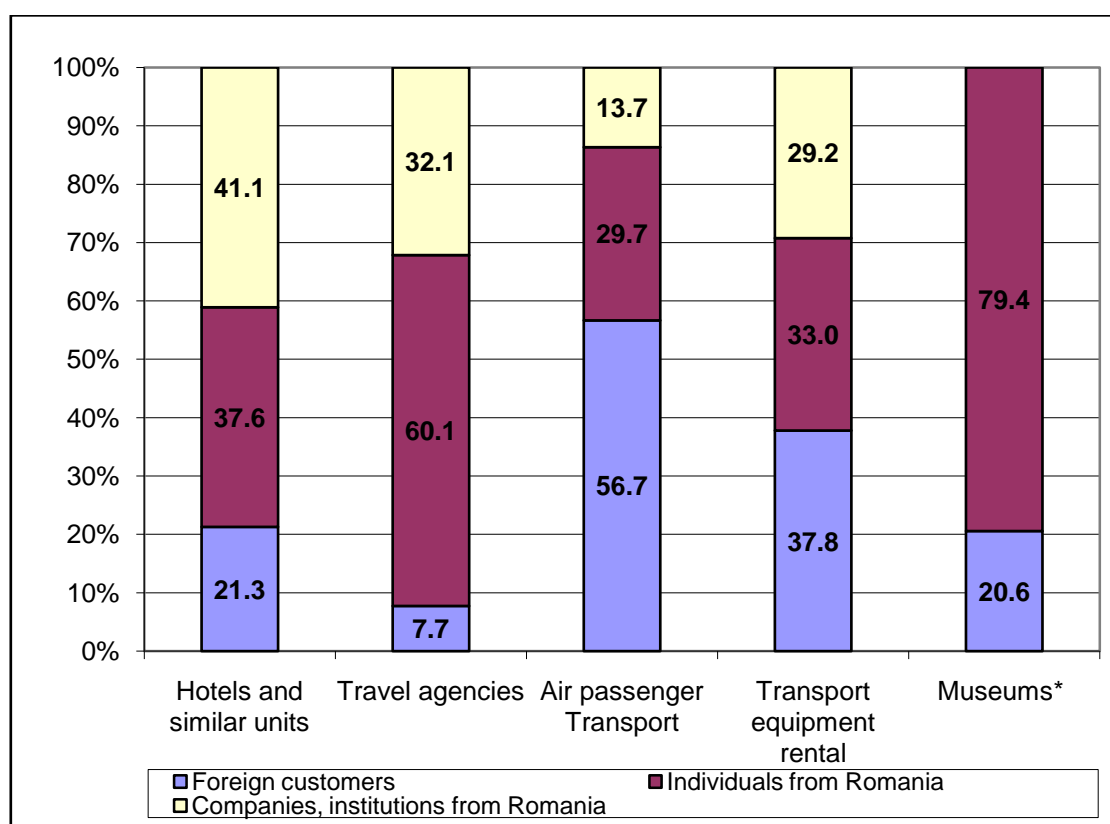
Note: * - for Museums category it has been agreed that all customers were individuals

References

United Nation World Tourism Organization - UNWTO (2010), 'International Recommendations for Tourism Statistics 2008', United Nations Publications, New York, pp 49-60

Commission of the European Communities Eurostat, Word Tourism Organization, Organization for Economic Co-operation and Development, United Nations Statistics Division, (*2008*), '2008 Tourism Satellite Account: Recommended Methodological Framework (TSA:RMF 2008) ', Luxemburg, Madrid, Paris, New York, 2010, pp 48-49

World Tourism Organization – WTO (2000), 'General Guidelines for Developing the Tourism Satellite Account (TSA) - *Measuring Total Tourism Supply*', volume 2, Madrid

Romanian National Institute of Statistics (2009), 'Business Register (active enterprises existing at December, 31st 2008)' [electronic document]

Institutul National de Cercetare Dezvoltare in Turism / National Institute of Research Development in Tourism – INCDT (2010), 'Models for sectorial economic assessment of tourism in Romania', Bucharest, Romania

Effects of a Passenger Movement Charge on the Australian Tourism Industry

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The paper estimates the economic impacts of the Australian Passenger Movement Charge (PMC). The PMC is a charge currently levied $47 per passenger for nearly all outbound travellers. It covers both visitors to Australia when they make their return journey and outbound travellers from Australia. It thus represents a tax on inbound tourism to Australia and on outbound tourism from Australia.

The study proceeds by way of examining what would happen if the PMC were changed- for example, if it were increased. The stated objective of the charge has been to cover costs. The study considers the impacts of a 20% increase in the PMC. This study uses a computable general equilibrium (CGE) model to assess the impacts of the PMC on key economic variables, such as GDP, GNI and Economic Welfare, and on Tourism industry output and employment.

Simulations are conducted using two tourism demand elasticity values of 0.5, and 1.0, based on evidence on tourism demand elasticities for Australia. These together provide a sensitivity analysis for the range of impacts for both inbound and outbound tourism separately.

The impacts of the increase in the PMC for *inbound tourism* include a *tax revenue impact*, whereby Australia gains more taxes from foreign visitors, and a *tourism benefits effect*, whereby Australia loses benefits because of reduced visits from foreign visitors as a result of the increase in the cost of visiting Australia.

The impacts of an increase in the PMC for *outbound tourism* include a tax effect, whereby additional revenue earned from the PMC on outbound travellers is offset by an equivalent reduction in Australian tax revenues under an assumption of budget neutrality, in effect one tax in Australia is replaced by another; a tourism effect whereby as outbound travel falls expenditure on tourism overseas is replaced by expenditure on Australian goods and services.

There is also a *domestic tourism effect* whereby some or all of the additional expenditure in Australia is spent on domestic tourism.

Simulation results include the following:

In the inbound tourism case the 20% increase in the PMC, with an elasticity value of 0.5, leads to a fall in GDP and GNI of $1.77m through the tourism benefits effect, and a $0.03m

fall in GDP and a $45.96m rise in GNI through the tax effect. Overall there is a $1.73m fall in GDP and a $44.2m rise in GNI.

The rise in the PMC leads to a $20.08m fall in tourism output.

In the outbound case, the 20% increase in the PMC leads to a $1.10m rise in GDP and GNI through the tourism effect, a rise in GDP and GNI through the tax effect of $0.26m, and a $1.68m rise in GDP and GNI through domestic tourism effect. Overall it leads to a $3.04m rise in GDP and GNI.

The rise in the PMC leads to a $12.02m rise in domestic tourism output.

Taking into account the overall impacts of the increase in the PMC on inbound and outbound travel, there is a $1.30m rise in GDP, a $47.23m rise in GNI and $8.06m fall in domestic tourism output.

If an elasticity is 1.0 is adopted the inbound and outbound tourism effects are larger, though still not large enough to outweigh the tax effects for the inbound cases. The combined effect on inbound and outbound travel is a $2.31m increase in GDP, a $48.24m increase in GNI and a $10.75m reduction in domestic tourism output.

Thus for Australia as a whole, a rise in the PMC is positive, though it is negative for the tourism industry.

The net impact on the tourism industry is small but can go either way. However there will be a net positive impact on the economy as a whole in most cases. This comes about because of the tax effect- Australia gains from foreign tourists paying Australian taxes rather than Australian residents. This effect is sufficient to outweigh other impacts. This suggests that if funds become available, reducing the PMC would not be a cost effective way of helping the tourism industry, and that other ways, such as increasing promotion or measures directed to improving tourism industry productivity, may prove to be more cost effective for the economy as a whole.

Modelling the Contribution of Tourism Development Towards Integrated Regional Sustainability

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Over the last years, the necessity for quantitative techniques in operational forms is been widely acknowledged to support the complex planning of tourism development, as well as the broader implementation of policies that improve its effectiveness.

Throughout the international literature, Integrated Sustainability Assessment is suggested as the most complete systemic method of analysis, since it allows the extensive study and delineation of all relations within an anthropogenic system (such as the tourism one) that interlink its economic efficiency, along with social justice and environmental preservation. In this regard, Sustainable Tourism Development is not considered as a given state of specifically defined characteristics, but rather as a developmental route with continuous improvements of the performances of all individual parameters that affect and get affected within a regional system.

Nevertheless, the great variety of tourism products and tourism destination typologies requires the development of a generalized framework of inductive structure that integrates the particularities and the needs of the specific tourism system with the principles of Sustainable Development. The proposed framework builds on the DPSIR (Driving Forces-Pressure-State-Impact-Response) approach, to set off quantitative cause-effect relations between: (a) the profile of each destination, expressed as elements of supply, demand and organization of the tourism market, (b) the direct effects of tourism activity, expressed as per capita and overall performance (expenditure, tourism employment) and environmental pressure (resources consumption), and (c) the overall impact (direct and indirect) entailed by the activity for the host destination (economy, employment, biodiversity, land uses etc.). With the defined three-stage structure, the framework may operate as a monitoring system of tourism activity, but also as a guidance system for policy planning and decision making; that, on the one hand, satisfies the need for documentation of sectoral (tourism) policies through the assessment of direct effects of tourism activity, and, on the other, supports spatial planning through the consideration of the overall impacts to the destination.

The developed tool is by nature a non-linear dynamic model of rather stochastic (non-deterministic) character due to its multi-dimensional structure and complexity of the individual indicators. The programming process will be based on Decision Analysis, considering Utility theory, Similarity vectors and advanced statistical methods, in order to evaluate tourism activity, its effects and impacts for the host destination, but also to forecast potential evolutionary trajectories towards sustainability based on the simulation of input data from selected case studies.

The Evolution of Tourism Multipliers: Turkey 1979-2002[f]

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Keywords: Tourism Multipliers, Input-Output, Turkey

This study estimates tourism multipliers for Turkey using data from the 2002 input-output tables, and compares them to the results of Liu, Var and Timu (1984), which were based on a 1973 input-output table. During the quarter of a century between these data sources, Turkey's tourism sector has experienced huge growth, and Turkey's economy has also been subjected to a host of different changes, from politically motivated changes, technological changes and the effects of globalisation. This study estimates multipliers for the direct, indirect and induced effects of tourism expenditures on income and shows that while economic impacts have risen substantially since Liu et al.'s study, the tourism income multiplier has fallen, with the larger impacts being attributable solely to larger tourism expenditures. The paper discusses how and why income multipliers may have fallen by examining the evolution of the tourism sector and tourism related policies in Turkey.

Reference:

Liu, J., T. Var and A. Timu (1984) 'Tourist-income multipliers for Turkey', *Tourism Management* 5(4):280-297.

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[f]Full paper available on memory stick.

The Role of Local Retail and Need for Its Focused Investment within a Tourist Destination Economy[f]

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This paper examines retail stores within tourist economies, and the possible investment needed to ensure optimal tourist development and a healthy and sustainable local economy. Comparing and contrasting the core tourist retail offers within two holiday resorts, it is suggested that local retailers in Crete are better at managing to meet the needs of the modern consumer than those on Tenerife. This has implications for the profitability of the retailers and income to the resorts as a whole. Improved tourist retail, it is proposed, can be achieved by extending the biophilic nature of resorts successfully into their retail area.

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[f]Full paper available on memory stick.

The Role of Remoteness in the Rental Value of Rural Tourism Lodging Units: A Comparison among an Eastern and Western Destination

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The pricing strategy of rural houses is influenced by a combination of diverse factors. The common characteristics include the availability of amenities, scale of the facility, the view outside the room, customer rating, and quality of the open space (Cox & Vieth, 2003; Fleischer & Tchetchik, 2005; Hamilton, 2007; Mangion, Durbarry, & Sinclair, 2005; Thrane, 2007). The spatial attribute of "remoteness" of the rural house surrounding environment however is blended with other characteristics and its importance is not well defined in the literature. Therefore, in this study, the main purpose is to quantify the influences of "remoteness" on the rural house rental price using a hedonic price model. In addition, two country data is compared to demonstrate the applicability of remoteness in rental price under Western and Eastern social cultures. The operational definition of "remoteness" is defined using following variables:

distance/travel time to major transportation facilities, health center, and beach;

population within a predefined distance/travel time;

an indicator of urban versus rural location.

All factors represent the proximity to the people, service and facilities at an expense of solitude.

The study subject includes rural houses in La Palma, Spain and PengHu islands, Taiwan, respectively. These two areas share similarities in terms of its isolated small island status and relying on sea and air transportation for access. La Palma belongs to the archipelago of Canary Islands, which is a traditional mass tourism destination. However, this island has maintained during last decades a moderate tourism growth mainly based on rural tourism. La Palma recieves a large amount of visitors from European countries, while PengHu islands serve mainly domestic tourists. Nevertheless, both regions exhibit an economic dependence on the tourism development and a strong supply of rural houses or Bed and Breakfast (B&Bs) (INE, 2010; Taiwan Tourism Bureau, 2010). The difference of these two is the expected attitude of "remoteness" in tourist preference for choosing their preferred rural houses, which may indirectly influence the pricing of the business entities. It is a general pattern that the Asian consumers, especially in the highly populated Taiwan, values greatly the convenience

of assessing to amenities, transportation, and services in choosing real estate (Choy, Mak, & Ho, 2007; Lin & Hwang, 2004). We hypothesize that this perspective would also influence their accommodation choice in travel as they are expected to demonstrate a rural house preference of choosing those that are located near the urban area or transportation facilities. In other words, the attribute of location remoteness would negatively influence the pricing strategy of B&Bs in Taiwan. However, remoteness and solitude are expected to be an added advantage on the rental price in the Western tourism destination like La Palma. In fact, previous studies have revealed that isolation is positively valued by the fishing tourism in lakes of Canada and also in the island of Gran Canaria, Spain (Hunt et al. 2005; Santana-Jiménez et al. 2009).

The quantitative analysis is replicated for the two destinations above. The results reveal that some environmental and spatial characteristics are influential on the rental price of the rural house. The comparison between both destinations reveals similarities and differences among the Eastern and Western rural tourist market. Moreover, some policy recomendations are also extracted from the empirical findings, which can help local agents to better design the future of the industry.

Reference

Choy, L., Mak, S., & Ho, W. (2007). Modeling Hong Kong real estate prices. *Journal of Housing and the Built Environment, 22*(4), 359-368.

Cox, L. J., & Vieth, G. R. (2003). Hotel investment in open area. *Annals of Tourism Research, 30*(2), 342-352.

Fleischer, A., & Tchetchik, A. (2005). Does rural tourism benefit from agriculture? *Tourism Management, 26*(4), 493-501.

Hamilton, J. M. (2007). Coastal landscape and the hedonic price of accommodation. *Ecological Economics, 62*, 594-602.

Hunt, L.M., Boxall, P., Englin. J. and Haider, W. (2005). Remote tourism and forest management: a spatial hedonic analysis. *Ecological Economics* 53, 101-113.

INE (2010). Encuesta de ocupación en alojamientos de turismo rural. Government of Spain. http://www.ine.es/inebmenu/mnu_hosteleria.htm#9

Lin, J.-J., & Hwang, C.-H. (2004). Analysis of property prices before and after the opening of the Taipei subway system. *The Annals of Regional Science, 38*(4), 687-704.

Mangion, M.-L., Durbarry, R., & Sinclair, M. T. (2005). Tourism competitiveness: price and quality. *Tourism Economics, 11*(1), 45-68.

Santana-Jiménez, Y., Suárez-Vega, R. and Hernández, J.M. (2009) Valuation of the spatial characteristics of rural tourism in Gran Canaria, Spain. Presented in *International Association of Tourism Economics Conference'09*. Chiang-Mai, Thailand.

Taiwan Tourism Bureau. (2010). Monthly report on home stay facilities operations in Taiwan. Taipei, Taiwan: Department of Transportation.

Thrane, C. (2007). Examining the determinants of room rates for hotels in capital cities: The Oslo experience *Journal of Revenue and Pricing Management, 5*(4), 315-323.

How to Measure the Economic Impact of Tourism in the Input-Output Framework? An Application for Galicia[f]

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The main particularity of Tourism is to be defined from the demand side, instead from the supply side like the other economic activities. Therefore, the definition of tourism must not be considered from its content but from the recipients of it, the visitors. Moreover, it should be taken into account that when those visitors consume goods and services in a territory, they are not only stimulating those industries that produce them. In other words, touristic expenditures are not only important because of the production or employment they directly generate, but also for the effect they have on the rest of the economy. For this reason, Tourism impact studies are usually conducted with demand models based on input-output (IO) (Fletcher, 1989, 1994; Archer, 1982) or computable general equilibrium models (CGE) (Blake, 2000; Blake et al., 2008; Dwyer et al., 2006). In this paper we use IO analysis to examine the significance of tourism on a Spanish regional economy like Galicia.

Nevertheless, we are aware that the Leontief model presents some limitations (Leontief 1936, 1941) such as: no assumption of supply constraints (even workers), constant return to scale, fixed commodity input structure or homogeneous sector output (Miller et al, 1985). In addition of the traditional ones, we also could consider that it only defines the behavior of the productive agents and it does not recognize all the interdependencies between regions.

Thus, the aim of this paper is to compare the results obtained with the classic demand model (Leontief model) with other models that attempt to solve some of those limitations. For instance, we implement an expanded model considering the households (induced impacts model), a two-region model that allows us to estimate the spillover and the feedback effects with the rest of Spain (interregional model) and our own model based on the supply and use tables, in order to correct the possible obsolescence of the data offered by the Symmetric Table (rectangular model).

Once we explained the different models, we compose the final demand vector for Galicia. We need to obtain the *interior tourism consumption*, i.e. the multiplication of 1) the number of internal and inbound visitors, 2) their daily expenditure and 3) the number of days that they stay in the territory.

Thus, for the calculation of *inbound touristic consumption*, we chose to use official data from the Galician Statistics Institute (IGE), and more specifically, from the Input-Output framework of 2005 (MIOGA 05) where we got the data about the non-residents' consumption, 1,838,809,000 €. Based on our own estimations derived from different sources like the Hotel Occupation Survey (EOH) published by the National Statistical Institute (INE) and surveys such as Frontur, Familitur and Egatur from the Institute of Tourism Studies (IET), we can get the *internal tourism consumption*, which is 1,319,937,595 €. As a result,

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[f]Full paper available on memory stick.

adding these two concepts we obtain the total domestic or *interior tourism consumption*: 3,158,746,595 €.

Table 1 - Results for Galicia in 2005 (multipliers).

		Leontief model	Induced model	Bi-regional model	Rectangular model
Interior tourism H.1	Output multiplier	1.4465	2.1893	1.4289	1.2643
	GVA multiplier	0.7512	0.9663	0.6357	0.6168
	Employment multiplier	15.7813	21.3878	16.0179	13.3993
Interior tourism H.2	Output multiplier	1.449	2.2192	1.4295	1.2693
	GVA multiplier	0.7561	0.9792	0.6359	0.6182
	Employment multiplier	17.3174	23.1309	16.0247	14.7096
Outflows to ROS (Spillover) H.1	Output multiplier	…	…	0.1540	…
	GVA multiplier	…	…	0.1159	…
	Employment multiplier	…	…	2.5489	…
Outflows to ROS (Spillover) H.2	Output multiplier	…	…	0.1413	…
	GVA multiplier	…	…	0.1142	…
	Employment multiplier	…	…	2.6190	…
Inflows (Feedback) H.1	Output multiplier	…	…	0.0336	…
	GVA multiplier	…	…	0.0824	…
	Employment multiplier	…	…	0.3008	…
Inflows (Feedback) H.2	Output multiplier	…	…	0.0335	…
	GVA multiplier	…	…	0.0670	…
	Employment multiplier	…	…	0.7513	…

With this IO methodology, the results for the Leontief model indicate that the significance of tourism in Galicia is between 5.51% and 5.54% of the GVA (Gross Value Added) in 2005, and between 4.60% and 5.04% of the equivalent jobs, i.e. between 49,849 and 54,701 equivalent jobs. These results appear when not considering the spending on public tourism expenditure (for instance tourism promotion) or investment. This interval is marked by the difficulty to compose the final demand due to the deficiency of the information provided for the statistical data sources. In fact, we must choose between two structural hypotheses about the tourism expenditure of the residents in order to be able to estimate the model. On the one hand, we assume that its structure is equal to non-residents and on the other hand, that is equal to residents in general, without taking into account that they are visitors. This

difference does not make many changes in the results for the GVA, but it appears to be significant in the case of dependent jobs or, in the employment multiplier.

As it can be seen in table 1, the effect on the different multipliers depends on the assumption we relax. As we expected, relaxing the assumption of no household's consumption or the assumption of no more regions we obtain higher multipliers due to the induced effects in the first case and the feedback effects in the second one. However, if we relax the homogeneity assumption, allowing industries to produce more than one product, we get lower multipliers. With these previous specifications, we are able to answer other important questions for the analysis of the economic impact of tourism.

References

Archer, B. H. (1982): 'The Value of Multipliers and their Policy Implications', *Tourism Management*, 3, pp. 236-241.

Blake, A. (2000): 'The Economic Impact of Tourism in Spain', *Christel DeHaan TTRI Discussion Paper,* no. 2000/2

Blake, A., Arbache, J., Sinclair, M. T. and Teles, V. (2008): Tourism and Poverty Relief, *Annals of Tourism Research*, Vol. 35, I1, pp. 107-126

Dwyer, L., Forsyth, P. and Spurr, R. (2006): 'Assessing the Economic Impacts of Events: A Computable General Equilibrium Approach', *Journal of Travel Research*, 45, 1, pp. 59-66.

Fletcher, J. (1994): 'Input-Output Analysis', in Witt, S. and Moutinho, L., [ed]: *Tourism Management and Marketing Handbook*, Prentice Hall, New York.

Fletcher, J. E. (1989): 'Input-Output Analysis and Tourism Impact Studies', *Annals of Tourism Research*, vol. 16, pp. 514-529.

Leontief, W. (1936): *Quantitative Input-Output Economics Relations in the Economic System of the United States*, Harvard University Press.

Leontief, W. (1941): *The Structure of American Economy, 1919-1929, an empirical application of equilibrium analysis*, Harvard University Press.

Miller, R. E. and Blair, P. (1985): *Input-Output Analysis: Foundations and Extensions*. Prentice-Hall, New Jersey.

Consequences of Tourism Foreign Direct Investment on Barbadian Livelihoods

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'Transnational tourism is one of the main driving forces of globalisation, one of the largest industries and one of the fastest growing sectors of the world economy' (Meethan, 2001:33). As a result tourism is often viewed as an important economic growth driver in the developing world (Cattarinich, 2001). However, it is argued that when a developing country uses tourism as a development strategy, it becomes trapped in a global system over which it has little control (Britton, 1982), which is the case of many Caribbean nations. These nations have a long history of involvement in the global tourism trade, which has become the main economic development strategy of most Caribbean nations. In order to fill the gap in savings and foreign exchange, many developing countries need a significant inflow of external resources (Ajayi, 2004), which will foster sustainable growth levels and lead to positive impacts on livelihoods. This has created an over-dependence on tourism exports, which in turn has led to an increasing reliance on FDI (UNCTAD, 1999) and in turn, a weak bargaining position in the tourism trade.

UNCTAD (1998) argues that in international trade in services, tourism is the only major sector in which developing countries have consistently had surpluses. It is commonly believed that wealth through tourism development will eventually trickle down and benefit the local poor through multiple channels such as employment, public welfare and family network (Zeng et al, 2005). However, it is argued that policymakers pay considerable attention to the expansion of the tourism sector, and less attention to which extent tourism development in practice contributes to peoples' lives and poverty alleviation (Christie, 2002). Thus, the factors stimulating this trend need to be examined together with the relationship between tourism FDI and its consequences on peoples' livelihoods. Chambers and Conway (1992) interpret livelihood as a means of gaining a living, including livelihood capabilities, tangible assets (i.e. resources), and intangible assets (i.e. access). Improving livelihoods and capitalising on benefits to communities involves the use of local labour, goods and services and also developing sustainable infrastructure, supportive policies and environmental strategies (Scoones, 1998; DFID, 1999; Simpson, 2008). Moreover, a wide range of non-financial livelihood impacts aid in decreasing vulnerability, improve access to information, develop skills, provide credit and markets, enhance and create new infrastructure, improve food security, and strengthen community organisations (Simpson, 2008).

Tourism development as a means of poverty reduction has been the focus of development agencies such as UNWTO, World Bank and DFID. Following the World Bank's World Development Report 1990 much of the livelihood debate has focused on development requiring sound growth oriented economic policies. As part of a broader globalisation policy agenda, the policies focused on the development potential of greater openness to trade and foreign investment (e.g. non-inflationary fiscal and monetary policies, a foreign exchange regime that does not lead to chronic overvaluation, lower barriers to trade, a considerable degree of deregulation and privatisation) (Culpeper, 2002). The UN Social Summit in Copenhagen 1995 established a consensus to place people at the centre of concerns for sustainable development and pledged to eradicate poverty, promote full and productive

employment, and foster social integration to achieve stable, safe and just societies for all (UN, 1995). These commitments were reiterated at the follow-up Special Session of UN General Assembly in 2000, and a full paragraph of issues to be addressed under the concept of social development was added (UN, 2000). The World Development Report 2000/1 identified "opportunity", "empowerment" and "security" as key instruments for the eradication of poverty (World Bank, 2002), and more recent papers from the Social Development Department of the World Bank view social development as a combination of "empowerment" (giving people voice and choice), "inclusion" (making institutions and policies more inclusive of poor people's needs and aspiration, and more effective in delivering them), and "security" (enhancing social stability and human security).

Few studies exist on FDI within the field of tourism and the focus has been mainly on the overall structure of tourism FDI (Endo, 2006), and the political economy of tourism FDI in countries such as Greece, Ghana, Turkey and Vietnam (e.g. Buckley and Papadopoulos, 1988; Buckley and Geyikdagi, 1996; Haley and Haley, 1997; Sadi and Henderson, 2001). Several studies offer empirical evidence on the importance of FDI contribution to poverty reduction, economic development and tourism in developing countries (e.g. Tambunan, No Year; Rutherford et al, 2005; Sun, 2002; Aaron, 1999; Ashe, 2005; Hall, 2007; Mirza & Giroud, 2004; UNCTAD, 2007). Despite FDI and tourism development being a powerful development tool Zhao and Ritchie (2007) have observed that the relationship between tourism and poverty alleviation remains *terra incognita* among tourism academics. Taking the unpredictability of tourism flows and revenues into account, it is surprising that in contrast to the broad scholarly attention to poverty reduction and pro-poor tourism, the relationship between tourism FDI and livelihoods have been relatively neglected. The scarcity of available literature on tourism FDI and livelihoods suggests that this field is worth greater research efforts.

This study focuses on tourism FDI impacts on local peoples' livelihoods and adopts a socio-economic approach to the analysis. The aim is to study different perspectives of stakeholders in order to capture the many factors that affect livelihoods, their relative importance and the way in which they interact. This in turn should help identify the impacts of tourism FDI on livelihoods in the context of Barbados. Moreover, the study is expected to question the criticisms of FDI influence on local development associated with dependency. It will further examine how ideals like opportunity, empowerment, security and inclusion are put into practice. Moreover, the study will seek to shed light on how tourism development policies fit with the country's commitment to poverty alleviation, and in turn how this commitment matches the local peoples' reality.

References

Aaron, C. (1999). *The Contribution of FDI to Poverty Alleviation.* The Foreign Investment Advisory Service.

Ajayi, S. (2004). *The determinants of foreign direct investment in Africa: A Survey of the Evidence* in Ajayi, S. Ibi (ed), Foreign Direct Investment in Africa: determinants, Origins, Targets, Impact and Potential. Nairobi, Kenya, African Economic research Consortium.

Ashe, J.W. (2005). *Tourism investment as a tool for development and poverty reduction: The experience in Small Island Developing States (SIDS),* The Commonwealth Finance Ministers Meeting 2005. Available: http://linkbc.ca/torc/downs1/tourism%20investment.pdf

Britton, S.G. (1982). The political economy of tourism in the Third World. *Annals of Tourism Research,* 9, (3), 331-58.

Buckley, P., and Geyikdagi, N. (1996). Explaining foreign direct investment in Turkey's tourism industry. *Transnational Corporations* 5 (3): 99–110.

Buckley, P., and Papadopoulos, S. (1988). Foreign direct investment in the tourism sector of the Greek economy. *Service Industries Journal* 8 (3): 370–388.

Cattarinich, X. (2001). *Pro-poor tourism initiatives in developing countries: Analysis of secondary case studies.* PPT Working Paper No. 8 for DFID. Available: http://www.ejisdc.org/ojs2/index.php/ejisdc/article/viewFile/475/238

Chambers, R., and Conway, G. (1992). Sustainable rural livelihoods: Practical concepts for the 21st century. IDS discussion paper 296. Brighton, UK: Institute of Development Studies, University of Sussex.

Christie, I.T. (2002). Tourism, growth and poverty: Framework conditions for tourism in developing countries, *Tourism Review* 57(1/4), pp. 35-41.

Culpeper, R. (2002). Approaches to Globalization and Inequality within the International System. UNRISD, September. Retrieved August 23, 2010 from http://www.nsi-ins.ca/english /pdf/unrisd_paper.pdf

Endo, K. (2006). Foreign direct investment in tourism—flows and volumes. *Tourism Management*, 27, pp. 600-614.

Haley, U., and Haley, G. (1997). When the tourists flew in: strategic implications for foreign direct investment in Vietnam's tourism industry. *Management Decision* 35 (8): 595–604.

Hall, M.C. (2007). *Pro-Poor Tourism: Do 'Tourism Exchanges Benefit Primarily the Countries of the South'?* In Current Issues in Tourism, Volume 10, Issue 2 & 3, June, pp. 111 – 118. Available: http://dx.doi.org/10.1080/13683500708668426.

Meethan K.(2001). *Tourism in Global Society. Place, Culture, Consumption.* Palgrave: New York.

Mirza, H., & Giroud, A. (2004). *Regionalisation, Foreign Direct Investment and Poverty Reduction: The Case of ASEAN,* Working Paper No 04/02. Available: http://www.bradford.ac.uk/acad/management/external/pdf/workingpapers/2004/Booklet_04-02.pdf

Rutherford, T., Tarr, D., and Shepotylo, A. (2005). The Impact on Russia of WTO Accession and The Doha Agenda:The importance of liberalization of barriers against foreign direct investment in services for growth and poverty reduction*,* In *Poverty and the WTO: Impacts of the Doha Development Agenda*, Thomas W. Hertel and L. Alan Winters (eds.) The World Bank, Washington, DC.

Sadi, M, Henderson J. (2001). The dynamics of foreign direct investment and the current state of tourism business in Vietnam. *The Journal of Hospitality and Tourism Administration* 2(1): 67–90.

Scoones, I. (1998) Sustainable Rural Livelihoods: A Framework for Analysis. *IDS Working Paper.* Brighton: Institute of Development Studies.

Simpson, M. C. (2008). Progress in Tourism Management: Community Benefit Tourism Initiatives – A Conceptual Oxymoron?, *Tourism Management*, 29 (1), 1–18.

Sun, X. (2002). *Foreign Direct Investment and Economic Development. What do the States Need to do?* Foreign Investment Advisory Service Marrakech, Morocco.

Tambunan, T. (No Year) The Impact of Foreign Direct Investment on Poverty Reduction. A Survey of Literature and Temporary Finding from Indonesia. Center for Industrial Economic Studies, Faculty of Economics, Jakarta, Indonesia. Available: http://web.mac.com/adrianpanggabean/Loose_Notes_on_Indonesia/Poverty_files/Tambunan_fdionpoverty.pdf

United Nations - UN (1995). Report of the World Summit for Social Development. Copenhagen 6-12 March. Accessed September 28, 2010 from http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N95/116/51/PDF/N9511651.pdf?OpenElement

United Nations - UN (2000). *Resolutions adopted by the General Assembly: S-24/2.*

Further initiatives for social development, UN, Geneva/New York (A/RES/S-

24/2, 15 December 2000). Retrieved September 8, 2010 from http://www.pogar.org/publications/other/un/conferences/wssd/copenhagen-review-0e.pdf

United Nations Conference on Trade and Development (UNCTAD). (1998). International Trade in Tourism-related Services: Issues and Options for Developing Countries. New York and Geneva: United Nations. Available: http://www.unctad.org /en/ docs/ c1em6d2.en.pdf.

_____ (1999). The Social Responsibility of Transnational Corporations. New York and Geneva: United Nations. Available: http://www.unctad.org/en/docs/poiteiitm21_en.pdf.

_____ (UNCTAD). (2007). FDI in Tourism: The Development Dimension. New York and Geneva: United Nations. Available: http://www.unctad.org/en/docs/iteiia20075_en.pdf.

World Bank (2002). *Millenium Development Goals: Eradicate Extreme Poverty and Hunger.* Available: http://www.developmentgoals.org/poverty.htm.

Zeng, B., Carter, R.W., Lacy, T., and Bauer, J. (2005). Effects of tourism development on the local poor people: Case study in Taibai Region China. *Journal of Services Research* 5 (S), pp. 131-148.

Zhao, W. and Ritchie, J.R.B. (2007). Tourism and Poverty Alleviation: An Integrative Research Framework. *Current Issues in Tourism* 10 (2&3), 119-143.

Airlines Alliances: An Agile Model - The Case of Aegean Airlines[f]

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This paper examines how Agile Manufacturing, which is a manufacturing process, could be applied in airline alliances to support tourism. Agile manufacturing, is a strategy which helps to face change which is the central concept in managing future organizations. Today an enterprise must be competitive, and that's why it is required continuous improvement, whilst at the same time must can to manufacturing costs.

Agile manufacturing offers the capability to survive in a competitive environment of continuous and unpredictable change in order to respond, real time, and effectively to changing markets, driven by customer-based products and services. Agile manufacturing combines organization, people and technology into an integrated and coordinated whole. The basic keys to agility are: to determine passenger's needs quickly and continuously, to reposit companies against their competitors, to design things quickly based on individual needs, to put them into full scale, to achieve quality, to produce quickly, and finally, to respond to a crisis quickly.

An enterprise to be agile means to be ' quick - moving'. Agility is a capability for fast adaptability in order to respond rapidly to the market changes. Today's tourism markets require responsiveness to change. There is a growing competition in changing customer demands, rising environmental concerns, shorter product life – cycles. More specifically products (as well as airlines products / services) must be offered faster, must be better, at a lower cost, and of course must not be massive, but mass customized products. This means that airlines must produce faster than the past, and the 'products' (services) must me characterized from quality. The four basic concepts of this strategy are quality of products, flexibility, fast delivery to customers and responsiveness.

The aim of this paper is to examine which is the common ground of the application of agile manufacturing in the field of airlines alliances and how this affects tourism. A case study of a member of Star Alliance, Aegean Airlines will be examined.

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Analysis of Tourist Demand in Saint Martine's Island

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Bangladesh is endowed with resources and the potential for a tourism industry. Saint Martin is one of the attractive or demandable tourist spot in Bangladesh. It is the most beautiful Coral Island where one will find live corals. From tourism point of view, supply component encompasses the basic facilities and services. Supply component for island tourism like accommodation, food, transport etc are limited. People need to book accommodation before they plan to go to this Island. Its only 30 km from Teknaf and one can go there by local motorboat, tourist boats, or sea truck, which available only in pick season. And in case of food, people may disturb for distance and cost. But, day by day the attraction of the island is increasing, especially through the information media and providing transport facilities. So, with the rapid attraction of island, built up with a very little service, that creates a growing need for adequate initiatives both in pick and off pick season. However the fact that, no policy or development plan has formulated a guideline to develop the island as a potential tourist spot. This study conducted on St. Martin Island to analyze the tourist demand on the basis of existing supply. So, the objective of this study is to analyze the existing demand and demand fluctuation of tourism in St. Martin's Island and also to find out the measures taken to manage fluctuating demand level and their efficiency. Results of the study revealed that, demand is strongly affected and limited by the supply, so happens in Saint Martin's Island. Supply aspects should be considered while using demand figures. With this significance of the problem, this paper will delineate a preliminary outline for the future tourist demand of St. Martin's Island and give some recommendations to minimize the gaps between demand and supply that best make a potential or demandable tourist spot of Bangladesh.

Determining Criteria to Evaluate and Compare Economic Impact Models of Tourism[f]

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In economic impact analyses (EIAs) of tourism use is often made of models. There are substantial differences between these models: not only the nature and precision of results but also, for example, data demands, complexity and underlying assumptions can be very different. Models are however often selected without enough consideration of these differences. The goal of this article is to provide an overview and evaluation of criteria that can be used to compare and choose between models.

Methodology

First, a literature review produced a list of potentially relevant criteria. Here, scientific articles in international peer-reviewed journals were taken as a starting point and were checked for criteria. But also other types of sources, e.g. text books, working papers and consultancy reports, were reviewed.

Second, the criteria from the literature were presented to experts of EIAs in tourism. We asked them to judge the importance of each criterion on a 5-point Likert scale and they were also asked to motivate their choices. The 1st selection of experts was based on suggestions made by partners of SusTRIP, a project part-financed by the Interreg 2 Seas program. In SusTRIP five partners work together to strengthen, through research, the tourism sector: Visit Kent (UK), Comité Régional de Tourisme Nord-Pas de Calais (France), Westtoer (Belgium), NHTV University of Applied Sciences (Netherlands) and Hogeschool Zeeland (Netherlands). The experts suggested by the partners were interviewed and asked to recommend other experts, who were also contacted. This led to a total of 34 experts interviews. 14 (41%) of these experts are categorised as academics; they are working for a university, scientific research institute, or national statistical institute. The other 20 experts (59%) are categorised as practitioners; they work for a consultancy firm, tourism marketing organisation, development corporation, or regional government.

These expert interviews allow us to determine the 'essential criteria'. These criteria are essential in the sense that they are worth considering when choosing between models in many (types of) EIAs. Included are criteria considered important by many experts as well as criteria on whose importance experts differ strongly in opinion.

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[f]Full paper available on memory stick.

In the third step, these essential criteria are used to compare five models. Because this is meant as an illustration of the way the criteria can be used we compare models often discussed in the literature about EIAs in tourism: export base models, Keynesian models, ad hoc models, input-output (I/O) models and computable general equilibrium (CGE) models. We use a literature review to 'measure', based on arguments of other scholars, how well the models 'perform' on the essential criteria.

Results

The essential criteria, the result of the 2nd step, are presented in table 1. The table includes criteria considered 'essential' or 'important' by at least 75% of experts supplemented with criteria on which there are significant differences in opinion between academics and practitioners (determined by a Mann-Whitney U Test). Criteria that belong to both groups are included only once.

Table 1. Essential criteria

Criteria	Description
Direct impacts	Models should enable calculation of direct impacts
Transparency V: Results	Models should produce results understandable for clients
Spending in ' traditional tourism industries'	Models should enable calculation of impacts of visitor spending in 'traditional tourism industries', such as e.g. restaurants, hotels, and travel organisations
Impact on value added	Models should enable calculation of impacts on value added
Impact on employment (persons)	Models should enable calculation of impacts on the number of employed persons
Impact per visitor category	Models should enable calculation of impact per category of visitors
Spending in all tourism industries	Models should enable calculation of impacts of visitor spending in all (tourism) industries: all sectors of the economy selling to tourists
Impact on employment (FTE)	Models should enable calculation of impacts on the number of employed FTE's (seasonality and part-time jobs) and self-employed persons
Efficiency III: data	Models should enable a data-efficient application
Trust in model	Models should be trusted by clients
Impact on tax income	Models should enable calculation of impacts on government's tax income
Comparability between tourism destinations	Models should enable comparison of impacts between tourism destinations
Impact on production	Models should enable calculation of impacts on production (output)
Efficiency I: money	Models should enable a cost-efficient application
Appropriateness of model	Structure of the model should be appropriate for the question and context of the specific EIA

Temporal comparability	Models should enable comparison of impacts between time periods
Efficiency II: time	Models should enable a time-efficient application
Indirect impacts	Models should enable calculation of indirect impacts
Standardisation	The structure of the model and definitions regarding input and results should be standardised
Comparability between geographical levels	Models should enable comparison of impacts between geographical levels (local, regional, national)
Negative externalities	Models should give insight into negative externalities
Sensitivity Analysis II: Model	Models should enable a calculation of consequences of varying the structure of the model
Sensitivity Analysis I: Definitions	Models should enable a calculation of consequences of varying definitions regarding input and results
Disequilibrium and market imperfections	Models should take into account there can be disequilibrium on markets and market imperfections

To illustrate their usage the essential criteria are used to compare five models. These models all have the same basic function: to calculate, starting from information about (changes in) tourist spending, the total economy-wide impacts. Table 2 (on the next page) shows which models would be the 1st or 2nd choice preference if this criterion was decisive. Although based on arguments by other scholars, these preferences are ultimately a choice of the authors of this article.

Conclusions and discussions

Based on table 2 several things can be concluded. (1) If interest is in a calculation of either direct impacts or 'negative externalities' none of the five models is preferred. Although it is not impossible, with additional structures, to use these models for this purpose, it is not part of their basic function. (2) CGE-models are the preferred choice on many of the criteria, but they do not 'score' high on transparency, simplicity, efficiency, and comparability. (3) Keynesian, export base and ad hoc models do offer advantages on these criteria, but the realism of their results is limited. (4) For many criteria I/O-models are the option 'in-between'. We can conclude that, with awareness of their obvious shortcomings, I/O-models still seem to offer potential to be applied in a tourism context, especially if adjustments and extensions can bring them closer to reality without making them too (data) inefficient

Important in using the criteria is that the choice of a model needs to be based on a context-specific selection of those criteria. The essential criteria can be taken as a starting point, adding or taking out criteria dependent on the specific question and context.

The methodology applied in this article bring with it some limitation. First of all, there is no guarantee that the list of criteria is 100% complete. It is possible to come up with additional criteria that might be very relevant for specific types of EIAs. A second limitation is that a pragmatic choice had to be made when to stop interviewing experts. Final limitations are related to the comparison of the five models. Of course there are other models, with other functions, that could have been analysed. Furthermore, instead of using a literature review, as we did in this article, it would have added value to make the comparison by applying a number of different models in the same case study.

Table 2. Scores of models on essential criteria

Criteria	Export base models	Keynesian models	Ad hoc models	I/O-models	CGE -models
Direct impacts					
Transparency V: Results	1st	1st	1st	2nd	
Spending in 'traditional tourism industries'				2nd	1st
Impact on value added				2nd	1st
Impact on employment (persons)				2nd	1st
Impact per visitor category				2nd	1st
Spending in all tourism industries				2nd	1st
Impact on employment (FTE)				2nd	1st
Efficiency III: data	1st	2nd	2nd		
Trust in model	2nd	2nd	1st	1st	
Impact on tax income				2nd	1st
Comp. between tourism destinations			2nd	1st	
Impact on production				2nd	1st
Efficiency I: money	1st	2nd	2nd		
Appropriateness of model				2nd	1st
Temporal comparability			2nd	1st	
Efficiency II: time	1st	2nd	2nd		
Indirect impacts				2nd	1st
Standardisation	2nd	1st	2nd	1st	
Comp. between geographical levels			2nd	1st	
Negative externalities					
Sensitivity Analysis II: Model				2nd	1st
Sensitivity analysis I: Definitions				2nd	1st
Disequilibrium and market imperfections					1st

Would You Pay for a Green Race? Evidence from the Two Oceans Marathon 2011

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Environmentally and socially responsible leisure activity has become a key issue in the development of sport and tourism. Service providers are keen to promote their sustainability credentials and people are starting to pay for carbon offsets and "green" certified facilities. However, compared to doing business as usual, greener operations often imply large capital investments and higher operating costs. There are numerous studies of the importance of sustainable tourism, of tourists that indicate that sustainability is important to them and of the positive impacts that it may have on development. This paper aims to make a contribution to the literature on whether people are willing to pay for greener products and services, by extending the scope to a sports event. It reports the results of a survey conducted at the Two Oceans Marathon in Cape Town, South Africa in 2011. This was the first time that such a survey was conducted at a marathon in South Africa. The analysis is of the predictors of which runners are willing to pay more for a sustainable event.

Determinants of Visitor Spending: An Evaluation of Participants and Spectators at the Two Oceans Marathon[f]

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The aim of this research is to investigate the socio-demographic and behavioural determinants that influence visitor expenditure at the Two Oceans Marathon in South Africa, based on a participant and spectator survey conducted at the race in 2011. Regression analyses were applied and results indicate that greater length of stay, paid accommodation, number of marathons participated in per year and higher level of education significantly influence higher participant spending at the marathon, while a high income occupation and paid accommodation are associated with higher levels of spectator expenditure. These findings not only generate strategic insights into the marketing of the event, but knowledge of these determinants will lead to a greater economic impact, as well as a competitive advantage.

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[f]Full paper available on memory stick

The Evolution of Methodology in Assessing Economic Effects of Large Events

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Holding large events, such as the Olympic Games and World Cups, brings different types of impacts including economic, social, cultural, political and environmental impacts. Although economic impact assessments were the earliest and most frequently conducted evaluations by academics and host organisers, other types of impacts are now receiving research interest. When evaluating the economic impact of large events, different methods have been applied in the past decades. These methods include multipliers, input and output (I-O) modelling, computable general equilibrium (CGE) modelling, econometric modelling, cost and benefit analysis (CBA). Instead of theoretically discussing the merits, usefulness and validity of each of these methods or practically assessing the economic impact of an event by using one of the methods, this paper aims to explore the evolution of methodology in assessing economic effects of large events. This paper establishes a framework to explain the evolution of methods in event impact studies in terms of time dimension and attempts to reveal the reasons for the shifts from one method to another. The research also suggests potential directions of future research.

Each method has its weaknesses and strengths and may include more than one approach which has been employed to evaluate the economic impacts of large events. For example, CGE modelling has been applied as static style (see New South Wales Treasury, 1997) and dynamic style (see Blake, 2005). In terms of econometric modelling, a standard differences-in-differences technique (Hotchkiss, 2003) and macro-econometrics modelling (Kasimati and Dawson, 2009) have been used. One or two methods may be in dominant in each period and it seems that CGE modelling is the dominant approach used in evaluation studies at the moment. CGE modelling which is based on general equilibrium theory can be seen as a paradigm shift from I-O modelling based on a partial equilibrium theory. Through researching on wide range of economic and event evaluation literature, an observation is that economic impact evaluation studies on large events seem to lag behind and learn from studies in other mainstream economic fields. This paper discusses the role that economic literature plays in the evaluation of methods used in the event evaluation research.

Returns to Education, Educational Mismatch and Job Satisfaction in the Tourism Sector during the Crisis[f]

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Human capital is a crucial element for the achievement of goals in terms of competitiveness and growth in the Spanish Tourism sector. In this article we use very recent data (from the Quality of Life at Work Survey, ECVT) for period 2008-2010 to assess how the crisis has affected Tourism workers in relation to three aspects:

(1)   The returns to education obtained by workers in exchange of the investment made in their education;

(2)   The measurement of the existing mismatch between such education and their jobs' requirements, and the assessment of its relationship with wages

(3)   The analysis of diverse dimensions of satisfaction with work, and the linkages between them and workers' education mismatch.

1. Returns to education in the tourism sector

In order to calculate the private return to education we use the specification of the Mincer wage equations (1974) that estimate, as we can observe, the effect of education and experience of individuals on their wage earnings. The dependent variable, the hourly wage W_i adopts a logarithmic form, whereby the estimated coefficients may be interpreted in terms of rates of return. The regressors included in the equation refer to the work experience of the workers, X_i (which is also included in the quadratic function) and the years of schooling, E_i. In equation 2, education is considered in discrete terms in accordance with the maximum level of education achieved. In this equation the reference category is (E_1, primary schooling), individuals who have completed secondary education (E_2), professional training (E_3), baccalaureate (E_4) or university studies (E_5).

$$Log\ W_i = \beta o + \beta 1\ E_i + \beta 2 X_i + \beta 3\ X^2_i + u_i \qquad [1]$$

$$Log\ W_i = \beta_o + \beta_1\ E_2 + \beta_2\ E_3 + \beta_3\ E_4 + \beta_4\ E_5 + \beta_5 X_i + \beta_6\ X^2_i + u_i \qquad [2]$$

Table 2 includes the results obtained when estimating equations 1 and 2 using the ordinary least square technique.

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[f] Full paper available on memory stick.

TABLE 2. EQUATIONS OF TOURISM EARNINGS

Ln hourly earnings	Tourism [1]			Tourism [2]		
	Total	Women	Men	Total	Women	Men
Education (years)	0.026*	0.023*	0.029*			
	(0.002)	(0.003)	(0.003)			
E2				0.063*	0.046	0.063**
				(0.023)	(0.040)	(0.028)
E3				0.176*	0.136*	0.188*
				(0.026)	(0.044)	(0.032)
E4				0.161*	0.118*	0.200*
				(0.028)	(0.041)	(0.039)
E5				0.306*	0.272*	0.340*
				(0.032)	(0.045)	(0.047)
Experience	0.009*	0.002	0.013*	0.009*	0.002	0.013*
	(0.002)	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)
Experience^2	-0.000**	0.000	-0.000*	-0.000**	0.000	-0.000*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	1.534*	1.562*	1.526*	1.675*	1.697*	1.682*
	(0.037)	(0.057)	(0.048)	(0.031)	(0.052)	(0.039)
R^2	0.062	0.050	0.073	0.065	0.053	0.078
N	2331	964	1367	2331	964	1367

*Significant at 1%;**Significant at 5%; ***Significant at 10%; Robust standard errors in brackets. Reference category: E1

Source: Authors own calculations based on data from the Quality of Life at Work Survey (ECVT) (2008-2010)

2. Educational mismatch: over-education of workers in the tourism sector

Over-education is a type of educational *mismatch* which arises when the level of education of an individual is higher that is required for the position that he/she occupies. Approximately 22% of workers in the tourism sector believe themselves to be overeducated (under-educated workers account for less than 2%). In order to analyse the possible influence of the educational mismatch on the economic returns of education, a Mincerian wage equation has been estimated [3] which incorporates this mismatch by including a discrete variable (over) that has a value of 1 when the individual believes that his/her training is of a higher level than required for the post that he/she occupies.

$$Log \ W_i = \beta_o + \beta_1 \ E_i + \beta_2 \ Sobre + \beta_3 X_i + \beta_4 X^2_i + u_i \qquad [3]$$

As expected (table 7), the result of the coefficient associated to *over-education* has a negative sign in the samples analysed. More specifically, the average expected value of the wage differences between an *overeducated* worker with respect to the reference category (appropriately educated) is a reduction of 15.53% and 10.45% for the total sample and tourism respectively. In the case of women and men who work in tourism, these wage

differences as a percentage would be a reduction of 6.13% and 12.90% respectively (in all cases the differences are calculated as $\exp\beta^2-1)\times100$).

TABLE 7. WAGE EQUATIONS INCLUDING VARIABLES THAT CONTEMPLATE THE EFFECT OF AN EDUCATIONAL MISMATCH

Ln hourly earnings	Total sample	Tourism		
		Total	Women	Men
Education	0.053* (0.000)	0,030* (0.002)	0.026* (0.003)	0.034* (0.003)
Experience	0.014* (0.000)	0.008* (0.002)	-0.002 (0.003)	0.010* (0.003)
Experience^2	-0.000* (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000** (0.000)
Overeducated	-0.168* (0.007)	-0.110* (0.020)	-0.063** (0.028)	-0.138* (0.028)
Constant	1.272* (0.011)	1.537* (0.037)	1.560* (0.057)	1.536* (0.048)
R^2	0.25	0.07	0.05	0.09
n	19632	2331	964	1367

*Significant at 1%;**Significant at 5%; Robust standard errors in brackets

3. Job satisfaction and workers in the tourism sector

Through an ordered probit model we estimate the relationship between the satisfaction of workers in the tourism sector and variables such as education, the educational mismatch and others relating to wage level, hours of work and experience.

TABLE 10. ORDERED PROBIT ESTIMATION OF SATISFACTION

Satisfaction	Model 1	Model 2
Education	0.020* (0.006)	—
E$_2$	—	-0.005 (0.062)
E$_3$	—	0.081 (0.070)
E$_4$	—	0.119 (0.074)
E$_5$	—	0.200** (0.082)
Overeducated	-0.664* (0.055)	-0.667* (0.055)
Wage (Log)	0.169* (0.065)	0.169* (0.065)
Hours of work (Log)	-0.228* (0.065)	-0.226* (0.066)

Experience	-0.010 (0.006)	-0.009 (0.006)
Experience^2	0.000** (0.000)	0.000*** (0.000)
N	2331	2331
Log likelihood	-4398.82	-4398.34
Likelihood ratio test	175.14	176.09
PseudoR^2	0.019	0.019

*significant at 1%;**significant at 5%.;***significant at 10%. Robust standard errors in brackets. Source: Author's own calculations based on data from the Quality of Life at Work Survey (ECVT) (2008-2010)

CONCLUSIONS

Tourism is one of the economic sectors with greatest capacity to generate employment in Spain. It is also a sector that has withstood particularly well the worst moments of the recent economic cycle and one which employs a greater proportion of some of those workers groups that generate the worst values for work variables. However, it cannot be denied that changes need to be introduced in the business model which will lead to the generation of greater value added and higher levels of productivity. These changes would include a net increase in human capital in the sector, which is characterised by the low average qualifications of its workers. Greater human capital endowments increase the capacity of adaptation and flexibility in the different tasks necessary to improve the processes, management and quality of service on all levels of the hierarchy. The results obtained in this study reveal an apparent paradox: over-education is greater in this sector than in the economy as a whole while the relative weight of those workers with higher levels of education is much less than in the wider economy. Logically, the problem has a double dimension: firstly the characteristics of the activity of the sector, which is very intensive in the use of the workforce, could mean that jobs which require a higher level of knowledge or skills are more scarce than in other economic sectors; secondly there may have been an excessive increase in the supply of better qualified workers in detriment to other groups whose training is more appropriate to the needs of the sector. The analyses carried out reveal that the wage returns obtained by the workers in exchange for their investment in education are lower in tourism activities than in the rest of the economy, and that overall levels of satisfaction of workers with the different dimensions of their working environment analysed are also lower, although in this case not as low as expected given the stereotyped image of the sector. The results also reveal that overeducated workers are subject to a wage penalty in relation to those who, with the same training, occupy positions that are more appropriate to their level of education. In addition to this monetary factor, the levels of job satisfaction are clearly lower for those who experience an educational mismatch. In a sector where human capital is fundamental, this discontent could be particularly negative not only in terms of the individual well-being of workers but also in terms of productivity levels and aspects related to the quality of the service provided.

Modelling International Tourism Demand for the Caribbean: A Dynamic Panel Augmented-Gravity Approach

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This paper employs the gravity approach to model international tourism demand for the Caribbean. The proposed model departs from the traditional model by employing new distance variables. The first variable measures the distance between preferences to test Linder's (1961) conjecture that the intensity of flows between two countries would be determined by the similarity or dissimilarity in their preferences. It is anticipated that, the more similar the preferences between two countries, the greater the tourism flows between each. The second variable is climate distance, which is based on the tourism climate index (TCI) developed by Mieczkowski (1985) who conceptualised that tourist destinations are usually characterised by climatic conditions that would be most comfortable for the average visitor. This study uses the difference in TCI between the origin and the host countries to measure climate distance. It is expected that the greater the climate distance the greater the tourism flows between origin countries and Caribbean countries. A dynamic panel approach is used to estimate the newly developed gravity model, because it is able to capture the phenomenon of habit persistence of tourists, in addition to assessing the effects of various distance measures on tourism demand in the Caribbean.

Policy Evaluation Through the Almost Ideal Demand System (AIDS) Model – Moving Closer to an Evidence-Based Approach to Tourism Policy-Making[f]

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The need for improved policy-making in tourism is increasingly being recognised, requiring the evaluation of tourism public policies. In spite of this increased interest in tourism public policy, and though policy-making has attracted the attention of many in the academic world, tourism policy analysis remains an understudied area. The aim of this paper will be to demonstrate the usefulness of econometric modelling for tourism policy analysis. It will show that crucial information is generated from such econometric policy analysis and which could contribute to an evidence-based approach to tourism policy-making.

The Almost Ideal Demand System model, which is grounded in consumer behaviour theory, will be applied to evaluate Malta's tourism policy to support British tour operators through a favourable exchange rate. This subsidisation policy, effective from 1985 to the year 2000, is evaluated in terms of its impact on demand elasticity, which is considered to be a good measure for destination competitiveness. The empirical research analysis is set within the Mediterranean context, with particular emphasis on Malta's competitiveness within the inclusive tour holiday market originating from the United Kingdom. The analysis will test a number of hypotheses including that:

> a subsidisation policy applied through a favourable exchange rate improves that destination's price elasticity;
>
> a subsidisation policy applied through a favourable exchange rate improves that destination's income elasticity;
>
> a subsidisation policy applied through a favourable exchange rate worsens the price elasticity and income elasticity of competitors;
>
> a subsidisation policy results in higher output levels but increased price elasticities in the long run.

These hypotheses will be tested through a dynamic AIDS model specification. The effect of the policy on price and income elasticities pre-, during and post-policy implementation is

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[f] Full paper available on memory stick.

estimated. Elasticity values over time for each year are also provided, along with an interpretation of the results. The paper will conclude with a number of observations prompted by the results of the econometric modelling and with a discussion on considerations for destination competitiveness in the inclusive tour holiday market.

Such policy evaluation based on quantitative assessment can contribute to improved policy-making as the policy-maker can be informed about the effectiveness of past policies and about how and to what extent the market responded to particular policies.

Tourism and GHG emissions for Spain 2006- A Tourism Data Base Preparation (Tourism Satellite Account, Inputs-Outputs Table and Air Emissions Satellite Account) and An Environmental Linear Programming Model.

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Keywords: Inputs-Output Analysis, Linear Programming Model, Tourism and GHG Emissions

Spain, despite the economic contraction and some environmental policies carried out, is far from fulfilling the Kyoto Commitment. . Tourism activity has represented between a 10% - 11% of Spanish GDP since 2000 up to 2006, creating during this period, more than 17.000 thousand of jobs. When we analyse the GHG emissions from tourism sector in Spain, the biggest tourism polluting activities are: air transport and road transport, despite the improvement in energy consumption, with a 14% and 15% respectively of total GHG emissions within tourism sector for 2006. This study lays on three data bases: the Inputs-Outputs table (TIO), the Tourism Satellite Accounts (TSA) and the Air Emissions Satellite Accounts (AESA) for Spain in 2006. These three data bases are combined to form a Benchmark accounting framework (BAF) whose main purposes are, on the one hand, differentiates between the tourism sector and the rest of the economy and, on the other hand, correctly assigns GHG emissions to its respective economic sector. We carried out two environmental linear programming models: a standard model and a multi-objective model. Both are based on I-O analysis and include an environmental constraint based on Kyoto Protocol. The multi-objective model gives the same contraction in demand (for all the cases) but with a lower fall in outputs by activities. Moreover, the change in production reduction shows the wide possibilities to carry out specific environmental target by sectors to pursue a future sustainable economic development.

Modelling Tourism Demand in Madeira Since 1946: A Time Series Approach

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Tourism is the leading economic sector in most islands and for that reason market trends are closely monitored due to the huge impacts of relatively minor changes in the demand patterns. An interesting line of research regarding the analyzes of market trends concerns time series. The modelling of demand patterns is obviously dependent on data availability, and the measurement of changes in demand patterns is quite often focused on a few decades at most. In this paper, we use long-term time-series data to analyse the evolution of the main markets in Madeira, by country of origin, in order to re-examine the Butler life cycle model, based on data available from 1946 onwards. This study is also an opportunity to document the development of the industry in Madeira and to introduce the discussion about the rejuvenation of a mature still a attracting large number of visitors. Tourism development in Madeira has experienced rapid growth until the late 90s, as one of the leading destinations in the European context. However, annual growth rates are not within acceptable ranges, and further research is needed to examine demand patterns in the main markets.

The econometric approach employed in this paper allows to model demand and to conclude about the conformity to the Butlers' model. In this paper, we analyze we test for the presence of unit roots prior to estimation, model selection and forecasting based on several Box-Jenkins (ARIMA) models. Several test are applied as measures of forecast accuracy and tourist arrivals for 1990 to 2009 are compared with the forecast performance of the ARIMA model for each origin market.

Price Sensitivity to Tourism Activities: Looking for Determinant Factors

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The variable price is crucial for tourism managers, since it is a flexible tool that permits rapid changes (as a reaction to a rival's action) and a powerful competitive element (as individuals can make direct comparisons among different alternatives). Consequently, knowing the impact of prices on individuals' choices is central for tourism management.

However, in a markedly heterogeneous market, like the tourist market, there exists an enormous diversity of sensitivities to price. If managers knew the individual by individual preference structure in terms of price sensitivities, they would be able to adapt each product to each person. Although the knowledge of this price preference structure would be valuable, the main limitation of analyzing this internal dimension is that it is not easy to measure in an individual basis, as it is not directly observable.

In virtue of the above, the objective of this study is to characterize, as a novelty in the tourism industry, the tourists' price sensitivities to tourism activities -individual by individual- by taking into consideration heterogeneity. For this purpose, this article proposes a Mixed Logit Model to find the heterogeneity between individual preferences and estimate the individual responses to price, and then a regression analysis to detect the factors that explain these heterogeneous responses.

The data used for the analysis refers to a stated choice experiment conducted in Ticino region (Switzerland) during summer 2010 within a project aimed to investigate the preferences of tourists for different activities at the destination. The collection of the data involved face-to-face paper and pencil interviews where each respondent was presented with 12 choice situations. The sample is comprised of 261 tourists, resulting in 3132 valid observations for the estimation of the Mixed Logit Model.

The findings show that push motivations are significant in explaining the detected heterogeneity on price sensitivity. Furthermore, the empirical application captures the distinction between motivations that have either positive or negative impacts on price sensitivity to tourism activities.

Demand Differences Between Business and Leisure Travellers on Low Cost Carriers

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Low cost carriers (LCC) are increasingly attracting a market segment traditionally associated with legacy airlines, the business traveller. Little is known regarding the characteristics of this demand, however. The present study analyses the differences in demand characteristics for business travellers and leisure travellers travelling by LCC. To do this, we formulate hypotheses on the basis of empirical evidence from previous studies into business travellers' demand for air travel and the neoclassical consumer model adapted to tourist demand, and subject them to a statistical comparison using a sample of tourists in Catalonia, one of Europe's most popular tourist destinations. Our hypotheses refer principally to the demand determinants related to time and budget restrictions in consumer's choice. Results indicate the existence of differential characteristics in business travellers' demand, some of which are related to time restrictions, such as length of stay at destination, while others, such as price of flight, do not appear to differ between business and leisure travellers. The results obtained may be of interest to destinations, particularly those which actively support the consolidation of LCC in their region, and to LCC themselves, providing information on a relatively unknown market segment with significant possibilities for expansion.

To our knowledge, no previous paper has analysed demand differences for LCC between business and leisure travellers, using microdata and focussing on time and budget restrictions coming from a microeconomic demand model. Referenced papers are amongst other those by Dresner (2006) and those that compare business traveller's demand between LCC and legacy airlines, such as Evangelho, Huse and Linhares, 2005; Fourie and Lubbe, 2006; Huse and Evanghelo, 2007; Mason, 2001, O'Connell and Williams, 2005. The paper is structured as follows. Following the introduction, the second section introduces the economic neoclassical consumer model and the paper's hypotheses. The formulation of the hypotheses also draws from empirical results found in previous literature on the choice of air carrier by business travellers. The third section shows the results obtained by applying statistical tests to a stratified systematic sample of LCC users at the airport of Girona, the major LCC operational base in Catalonia, Spain. The paper ends with the discussion and implications of the findings.

The Competitiveness Potential of Created and Inherited Tourism Supply: Slovenian Tourism Destinations[f]

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In the last twenty years many models that consider the numerous competitiveness determinants or factors have been theoretically or empirically created and tested (De Keyser & Vanhove, 1994; Dwyer, Livaic, & Mellor, 2003; Enright & Newton, 2004; Gomezelj Omerzel & Mihalic, 2008; Ritchie & Crouch, 2000; Tsai, Song, & Wong, 2009). However, there is still a need to intensify research efforts in the area of competitiveness potential of single competitiveness factor or resource (Dwyer & Kim, 2003). This paper studies competitiveness of created and inherited tourism resources and their interdependence and offers implications for tourism policy in regard to inherited resources.

Tourism researchers divide tourist supply into primary and secondary or into inherited and built or created resources (Kaspar, 1991; Planina, 2002; Stabler, Papatheodorou, & Sinclair, 2010). Primary tourist resources are not produced (e.g., climate and physiography) and cannot be reproduced (e.g., anthropogenic resources, such as arts, history, culture). They represent potential tourism attractors and are capable of triggering potential tourism demand. The extent to which these primary resources can be productive attractors depends on secondary tourism resources, meaning tourism supply that is purposely produced for tourism (Kaspar, 1991). Inherited tourism resources are attractors and can bring added value if sufficiently included into tourism products; built resources have a double role. They are both attractors and a necessary condition that makes visitation possible. Inherited resources without secondary resources are not tourism supply, as tourists cannot reach and enjoy them. Then, both parts are complementary and interdependent. Visitors may select a destination because of either primary or secondary attractions; tourism products may be a beach holiday, a city break, a visit to an amusement park, or an attractive hotel. Understanding the potential and real performance of inherited and built tourism resources/supply has strong implications for tourism policy.

Slovenia is a new country in south-central Europe. This European Union member state borders Italy, Austria, Hungary, Croatia, and the Adriatic coast. It has alpine, continental, and Mediterranean climate zones, and tourism includes mountain, sea, city, spa, gambling, and farm destinations. Presently, the country has approximately 82,000 tourist beds, 31,000 of which are in the hotel sector. In 2009, tourists (including 58 percent foreign) stayed for a total of 8.3 million nights ((SORS, 2010). Foreign tourism earnings were 1.8 billion euro. According to current policy, Slovenia builds its tourism competitiveness on green image and performance. It is marketed as a green piece of Europe under the slogans "Slovenia is green," "Slovenia goes green," and "Slovenia promotes green". Indeed, inherited natural resources are seen as important comparative advantage of Slovenian tourism. Previous supply-side competitiveness research in Slovenia confirmed that green resources are the stronger part of Slovenian competitiveness. Yet, this paper first time studies Slovenian green competitiveness potential from the demand side.

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[f] Full paper available on memory stick.

Our model distinguishes between inherited and created resources. Then, based on resource importance − performance measurements - it also distinguishes between ideal and real tourism destination. The first one refers to the potential tourism demand and to the question *how important* are different destination resources for the visitors; the second to the real destination and to the visitor's evaluation of *performance* of these resources (Figure 1). Model enables us to test four different sets of hypothesis.

Figure 2: Inherited (INH) − Created (CRE) Resources Destinations Competitiveness Model
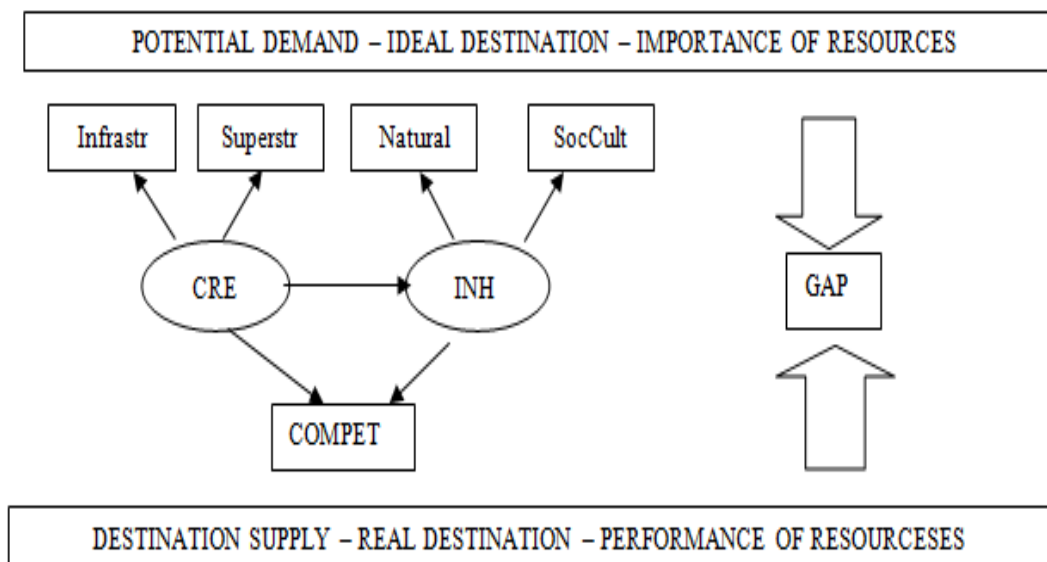
Legend: *Infrastr – Tourism Infrastructure; Superstr – Tourism superstructure; Natural – Natural resources (attractors); SocCult – Social and cultural resources; CRE – Created resources; INH – Inherited resources; COMPET – Competitiveness: GAP – Gap between customer perception of importance and performance in resources*

Our first hypothesis claims that potential tourism demand distinguishes between created and inherited resources. Indeed, factor analyses, based on the importance of resources for potential visitors, confirmed the existence of the two groups. Furthermore, analyses confirmed that created resources can be broken into accommodation (e.g. our variable for tourism infrastructure) and entertainment & recreation (our variable for tourism super-structure, see Figure 1); and inherited into natural and socio-cultural resources.

Our second set of hypothesis suggests that the importance of created and inherited resources for potential visitors may not be the same and also that a real tourism destination may not equally fulfil visitors' expectations in regard to these two studied group of resources. Statistical analyse confirmed lower importance of created resources, as well as the importance-performance gaps. In general, in Slovenia performance of built resources exceeds the importance and vice versa, performance of inherited resources is lower than expected. This is in contradiction with green policy orientation of Slovenian tourism that claims Slovenia has comparative advantage and competitiveness potential in inherited resources, especially natural.

The third hypothesis assumes that inherited and created resources have different impact on competitiveness. Created resources have a direct impact, as well as an indirect impact via inherited resources, which they bring to the tourism market and thus indirectly sell. Inherited

resources directly influence tourism demand (i.e., customer satisfaction and competitiveness) and their impact is enabled and enhanced by the existence of created resources.

Figure 2: INH-CRE competitiveness SEM for Slovenia (standardised effects)
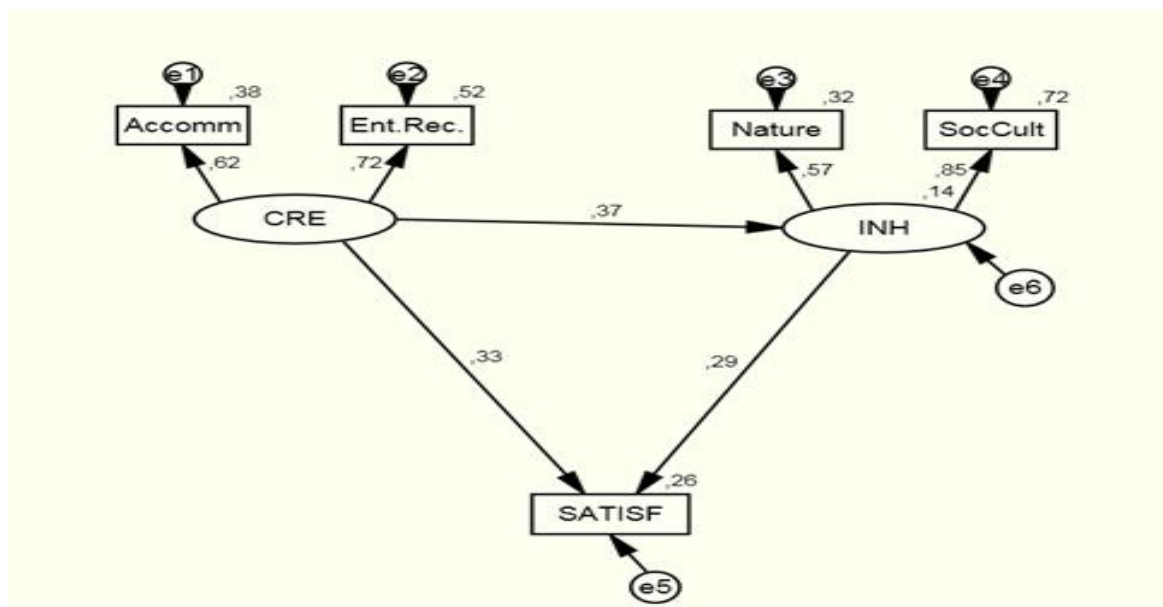
Legend: Accomm – Accommodation, our variable for Tourism Infrastructure; Ent.Rec.– Entertainment & Recreation, our variable for Tourism Superstructure, Satisf – Satisfaction of the visitors, our variable for Competitiveness.

For a country such as Slovenia that promotes itself as a green destination, we assume that inherited (and among them natural) resources will have a strong impact on competitiveness (standardized coefficient beta 0.33 for created and 0.29 for inherited, Figure 2). This hypothesis has been tested by a SEM model. Model shows that created resources have stronger impact on satisfaction than inherited resources. Another interesting finding of the model is in a group of inherited resources the socio-cultural resources have been strongly represented (loadings 0.85), compared to natural (loadings 0.57). This is not in line with the expectation that Slovenia has competitive advantage in its green and unspoiled nature. In the real tourism market social-cultural attractiveness potential is better utilised and thus has a stronger impact on competitiveness.

Our final hypothesis tests how important are different resources for different tourism destinations. We would expect strong effect of created resources on satisfaction in an urban destination, yet the capital city of Ljubljana failed to confirm assumption. We would expect a seaside destination to commercialise its natural potential, yet our analysis of Slovenian main seaside destination Portorož failed to confirm this, yet the impact of created resources on satisfaction has been confirmed. However, the mountain destination of Rogla strongly relies on inherited resources, which could mean that its created infrastructure and tourism products are better linked to inherited potential and the destination employs these potential better. Further, created infrastructure and superstructure had strong impacts on customer satisfaction in the spa resort, impact of natural and socio- cultural resources have not been confirmed.

We can **conclude** that in Slovenia the supply of inherited resources is not competitive and utilised as expected and as Slovenian tourism decision makers believe. Their perception is based on previous research findings from supply-side opinion research. Although supply-side competitiveness research has an advantage in enabling the study of the potential of many competitiveness factors, including tourism management and policy or legal environments, it

has one major disadvantage, too. It is not directly connected to consumer preferences and their perceptions of competitiveness. Our model has successfully tested competitiveness perception from the standpoint of a potential visitor. We proved that, from the standpoint of the visitors, the division of resources into inherited and created resources is meaningful. In the case of Slovenia, visitors clearly wanted more inherited resource-based experience. Specifically, the nature based destination, such as seaside and mountain destinations, need to improve their performance in regard to natural resources. Although these destinations have well developed created tourism infrastructure and superstructure in order to change comparative advantage in possessing natural resources into competitive advantage, these built resources have failed to employ the inherited potential in a competitive way.

References

De Keyser, H., & Vanhove, N. (1994). The Conmpetitive Situation of Tourism in the Caribbean Area - Methodological Approach. *Review de Tourisme, 3*, 19-22.

Dwyer, L., & Kim, C. (2003). Destination Conmpetitiveness: Determinants and Indicators. *Current Issues in Tourism, 6*(5), 369-413.

Dwyer, L., Livaic, Z., & Mellor, R. (2003). Competitiveness of Australia as a Tourist Destination. *Journal of Hospitality and Tourism Management, 10*(1), 60-78.

Enright, M., & Newton, J. (2004). Tourism destination competitiveness: a quantitative approach. *Tourism Management*, 777-788. doi: DOI 10.1016/j.tourman.2004.06.008

Gomezelj Omerzel, D., & Mihalic, T. (2008). Destination competitiveness - applying different models, the case of Slovenia. *Tourism Management, 29*(2), 294-307.

Kaspar, C. (1991). *Die Tourismuslehre in Grundriss*. Bern: Verlag Paul Haupt.

Planina, J. (2002). *Ekonomika turizma, (EF, Učbenik). 1. Natis*. Ljubljana: Ekonomska fakulteta.

Ritchie, J., & Crouch, G. (2000). The competitive destination: A sustainability perspective. *Tourism Management*, 1-7.

SORS. (2010). *Statistical Yearbook 2010*. Ljubljana: Statistical Office of the Republic of Slovenia.

Stabler, M., Papatheodorou, A., & Sinclair, M. T. (2010). *The economics of tourism* (2nd ed.). London ; New York: Routledge.

Tsai, H., Song, H. Y., & Wong, K. K. F. (2009). Tourism and Hotel Competitiveness Research. *Journal of Travel & Tourism Marketing, 26*(5-6), 522-546. doi: 10.1080/10548400903163079

A Dynamic Analysis of Repeat Visitors[f]

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This paper introduces the Dynamic Probit model to analyse the underlying reasons behind repeat visits to the Azores Islands. The advantage of the model is that it allows investigating for lags in the covariates as well as for endogeneity in the covariates enabling a more accurate view of the repeat visits phenomenon in a specific tourism island destination. From the model estimation it is clear that the number of visits to the Azores Islands is a time effect that should be analyzed only with dynamic models permitting to identify persistent variables that attract the repeat tourists. The repeat tourist is supported by multiple variables such as overall satisfaction with the destination and specific satisfaction with destination attributes. However, the most important covariates are the destination attributes that are the persistent attractors of the repeat visitor. Related policy implications are derived.

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[f]Full paper available on memory stick.

The Problematic Triumph of Technique over Theory in Tourism Demand Modelling, Economics and Strategy[f]

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It is argued that the current practice of demand modelling in tourism does not sufficiently take into account some of the particular characteristics of tourism. Important variables and significant dynamics are routinely ignored. The practice of strategy in tourism faces a similar criticism of applying general techniques to tourism data without sufficiently adapting them to important characteristics of tourism.

From the argument, the following propositions are put forward:

- the results from demand models incorporating seasonality and seasonal data will prove to be better guides for policy and strategy than models of annual data.

- the results from demand models estimated using Weighted Least Squares, or percentage error loss functions, will yield more robust results than the usual OLS models.

- discrete choice models will come to be preferred as more reliable than aggregated demand models.

- structural equations modelling will experience an only brief current period of popularity.

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[f]Full paper available on memory stick.

Study-Abroad Tourism: An Analysis of the Tourism Expenditure by Exchange Students in Palma De Mallorca.

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Understanding the different market segments and their tourism expenditure is essential for any destination. In this sense, this paper undertakes an analysis of the tourism expenditure in Palma de Mallorca for a growing and neglected market segment, the study-abroad visitors. Only in countries where its existence is noticeable (UK, Canada, Us and Australia), there have been a few attempts to analyse their expenditure patterns and its economic contribution. It represents then an ambitious initiative to study this growing segment in an Island where tourism is in its maturity stage, and where new segments that alleviate seasonality are more than welcome.

A specific exchange-student-survey was designed with the aim of (1) estimating and assessing their average expenditure at the destination, (2) modelling its determinants though discrete choice models, and (3) assessing the importance of visiting and relatives tourism. The survey was conducted at the University of the Balearic Islands during the months of March, April and May in 2010.

The study results show that this segment devotes a big part of their income onto essential items such as housing and food. However, the regressions shows that the spending patterns of this segment are heterogeneous depending of factors such as the continent of origin, the mobility programme or the length of stay in Mallorca. Last but not least, the study reveals the potential of this segment to stimulate friends and relatives to visit the Island during middle and low seasons.

Intra-Industry Trade and Vertical Differentiation in Tourism Services[f]

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Keywords: Bilateral Tourism Flows, Intra-Tourism Trade, Two-Way Trade, Vertical Intra-Industry, Quality.

Most empirical studies on intra-industry trade (IIT) have been confined to trade in goods and little attention has been paid to the case of services. Moreover the few available studies on services have some serious methodological shortcomings. The purpose of this paper is to shed some light on intra-industry trade in services by providing a rigorous case study on international trade of tourism services for a sample of 14 countries of the European Union. International tourism has grown rapidly over the last decades to become one of the most export sectors worldwide. To the best of our knowledge, this paper constitutes the first empirical study that investigates IIT between many countries for some category of services on a strict bilateral basis and at the most detailed level for which bilateral data are available. It is also the first investigation studying intra-industry trade for services to address the issue of vertical and horizontal IIT. Our results put into question the stereotyped image of one-way flows of international tourists, going from very few source countries to highly tourism-specialized host countries. They clearly show that tourism flows between EU-14 countries are mainly dominated by reciprocity more than univocity. They also indicate that intra-tourism trade within this region is essentially composed of the trade of vertically differentiated tourism products.

Appendix

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[f]Full paper available on memory stick

GRAPH A1

Distribution of the Grubel and Lloyd's indexes for the tourism sector in the EU-14 (2000-2004)
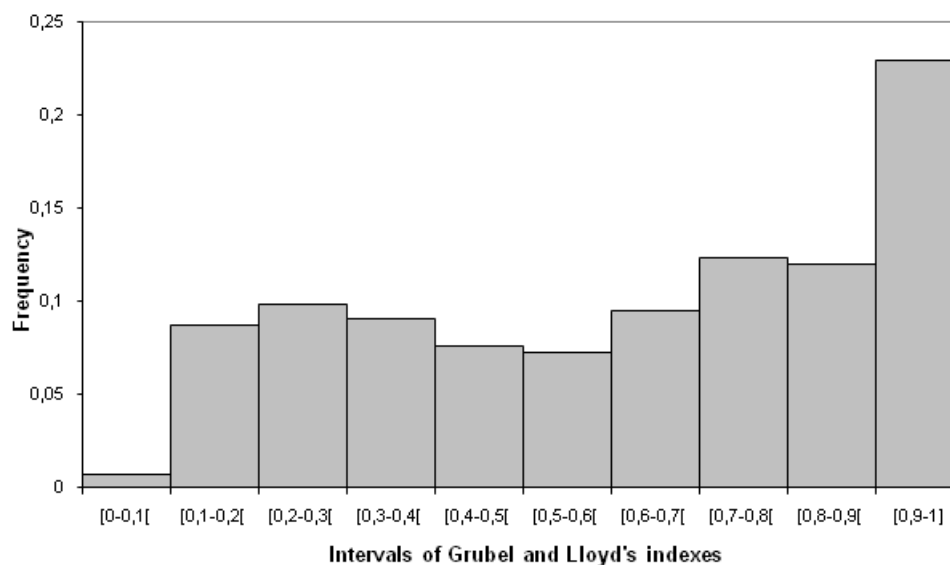
Source: OECD (2003, 2007); authors' calculation

TABLE A1

Share of one-way trade in the UE-14 (in %), according to Fontagné and Freudenberg's (1997) method (2000-2004)

Threshold for the trade overlap	Share of One-Way Trade
≤ 10	5.90
≤ 20	24.36
≤ 30	34.91
≤ 40	47.11
≤ 50	56.13

Source: OECD (2003, 2007); authors' calculation

Note: if we fix the threshold of trade overlap at 30%, i.e if we consider that the minority flows represents at least 30% of the majority flow, the share of one-way trade is 34.91%

TABLE A2

Decomposition of bilateral tourism flows in the EU-14 (in %), according to Greenaway, Hine and Milner's (1994) method and the criterion of similarity applied (2000-2004)

	Threshold of quality similarity				
	≤0.15	≤0.20	≤0.25	≤0.35	≤0.50
IITH	6.4	8.2	10.2	11.6	19.2
IITV	46.2	44.5	42.4	41.1	33.5

Sources: OECD (2003, 2007), UNWTO (2006), CEPII (2006); authors' calculation

Note: if we choose a threshold of similarity of 0.35, the shares of IITH and IITV are 11.6% and 41.1%.

TABLE A3

Share of vertical two-way trade in the EU-14 (in %), according to Fontagné and Freudenberg's (1997) method and the criteria of overlap in trade and similarity of quality applied (2000-2004)

		Threshold of quality similarity				
		≤ 0,15	≤ 0,20	≤ 0,25	≤ 0,35	≤ 0,5
Threshold for the trade overlap	≥ 0.1	81.9	79.1	75.6	73.8	68.6
	≥ 0.2	58.0	56.2	52.7	51.0	46.1
	≥ 0.3	48.5	47.5	44.0	43.5	39.3
	≥ 0.4	34.1	33.3	31.9	31.4	27.4
	≥ 0,5	28.2	27.5	26.5	26.0	22.0

Sources: OECD (2003, 2007), UNWTO (2006), CEPII (2006); authors' calculation

Note: if we choose a threshold of similarity of 0.35 and a threshold of trade overlap of 0.1, the share of vertical two-way trade is 73.8%.

TABLE A4

Share of horizontal two-way trade in the EU-14 (in %), according to Fontagné and Freudenberg method's (1997) and the criteria of overlap in trade and similarity of quality applied (2000-2004)

		Threshold of quality similarity				
		≤ 0,15	≤ 0,20	≤ 0,25	≤ 0,35	≤ 0,5
Threshold for the trade overlap	≥ 0.1	9.1	11.9	15.4	17.1	22.4
	≥ 0.2	8.8	10.7	14.2	15.9	20.8
	≥ 0.3	7.0	7.9	11.4	11.9	16.1
	≥ 0.4	4.3	5.1	6.4	7.0	11.0
	≥ 0,5	3.4	4.2	5.1	5.7	9.7

Sources: OECD (2003, 2007), UNWTO (2006), CEPII (2006); authors' calculation

Note: if we fixe the threshold of similarity at 0.35 and the threshold of trade in overlap at 0.1, the share of horizontal two-way trade is 17.1%

TABLE A5

Decomposition of bilateral tourism flows in the EU-14 (in %), according to the Azhar and Elliott method and the criterion of similarity applied (2000-2004)

	Threshold of quality similarity				
	≤0.15	≤0.20	≤0.25	≤0.35	≤0.50
IITH	11.6	14.1	18.9	25.5	30.3
IITV	41.1	38.6	33.8	27.2	22.4

Sources: OECD (2003, 2007), UNWTO (2006), CEPII (2006); authors' calculation

Note: if we fixe the threshold of similarity at 0.35, the shares of IITH and IITV are 25.5% and 27.2%

Evaluating Dairy Farmers' Attitudes on Educational Tourism in Farmyard

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Keywords: Educational Tourism, Educational Function of Agriculture, Diversification of Dairy Farm, Ordered Logit Model, Externality.

Introduction

It is recognized that agriculture has multifunctionality, or positive externalities to society, in addition to food production. One of the sub-functions of agriculture that has been little investigated is the educational function that enables people to learn about farm life and how food production is conducted, which are often forgotten in modern urban life. In this respect, educational tourism in agriculture has been attracting growing attention as a newly emerging activity along with the growing demand for experience-oriented tourism.

One problem of this educational service is that there has not yet become a viable market for the educational service. Therefore, it is necessary to clarify the conditions necessary for viable educational services. In response to this need, this paper quantitatively investigated farm operators' attitudes toward and conditions needed for viable educational tourism by focusing on Educational Dairy Farms in Japan. Finally, policy recommendations were presented.

Data and methods

The author obtained data from a questionnaire survey that was implemented by the author and distributed to the 257 operators of Educational Dairy Farms, a designation formally created by the Japan Dairy Council in 2000. Response ratio was 79.4% (204 farms). Variables that were examined were whether operators had a social learning network, the number of visitors a year, gender of the person responsible for the educational service, incorporation of a travel agency, and milk production as an indicator of farm size.

This study had two parts: a conceptual framework and empirical examinations based on that framework. A conceptual economic framework was presented to express operators' orientation toward an economically viable service by incorporating the internalization process of positive externalities. Then, statistical tests were conducted and factors that determined this orientation, a viable service determinant function, were explored by the ordered logit model.

Results

The main findings and conclusions were as follows. First, the higher the number of visitors, the greater was the operator's orientation toward a viable service. Second, the operators that had a human network with a social learning function among those who had an open-door policy for their farmyards worked positively toward a viable market orientation. This suggests the existence of social learning effects among such operators, which differed from the typical closed human network that used to be the norm in the rural community.

Third, the involvement of women rather than men and the combined services with food experiences rather than simple farming experience services per se were the factors that raised the viability of educational services.

Fourth, direct selling of dairy products in the farmyards and use of a travel agency had positive connections with an orientation toward the viability of educational services.

As a consequence, to make educational services of Educational Dairy Farms viable does not simply mean that those farms should become tourism ranches. Rather, the balance between the educational function and the economic viability of services should be attained for the exploration of a new social role of agriculture and the creation of a new market. In this respect, public support will be effective in building the capacity of those operators.

The Effects of the Financial Crisis on Tourism Activity: Evidence from the UK[f]

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The recent financial crisis that plagued the majority of European countries recently has had a particularly negative effect on tourism activity across national economies. The direct effects of the recent financial crisis on tourism activity are evident in terms of tourism consumption (tourism demand) and expenditure patterns (Smeral 2009). According to Sheldon and Dwyer (2010), tourism expenditure has experienced greater falls than any other form of discretionary consumer expenditure. Indicative of the extent of the problem is the fact that in 2009 the international credit crunch and the financial crisis resulted into a slowdown of international demand for foreign travel in the EU by 5% in real terms.

Despite the magnitude and severity of financial crises on tourism activity, very little is being done in terms of understanding how the tourism sector is coping during times of economic recession (Okumus and Karamustafa 2005). Contrary to the established practice of adopting a macroeconomic perspective in the examination of the impact of financial crises on tourism activity, this paper follows recent recommendations in the literature to examine the particular adverse effects of the current financial/economic crisis on individual behaviour and demand patterns. For that purpose, we utilise evidence from a unique dataset put together through the distribution of a survey questionnaire on British tourists in 2010.This investigation could provide interesting insight to public sector managers and policy makers since it provides evidence regarding the turning points of demand, especially during periods of economic downturn.

The particular aim of this paper is to provide empirical evidence on the impact of the recent financial crisis on British tourists' activity patterns. Our research objectives are set twofold.

- *First*, to provide a better understanding of tourist behaviour and demand patterns during periods of economic recession.

- *Second*, to offer evidence based insight to public policy makers and managers regarding the particular actions and initiatives they could utilise to fend off the negative effects of the crisis.

The study was conducted from October till end of November 2010 at the International Airport of Manchester in United Kingdom to every fifth passenger passing from flight's check. The selected passengers had to be permanent residents of UK. All the respondents had

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to be adults, travelling for leisure purposes. The research sample is stratified since equal number of passengers per gender was selected. Since the proportions of population were unknown, it has taken a conservative response format 50 / 50%, meaning the assumption that 50% of the respondents have negative perceptions of financial crisis' effects impacts, and 50% have not. At least 95% confidence and 5% sampling error was selected. The sample size is 400 passengers.

The results from our empirical investigation suggest that the financial crisis appears to have a much more significant effect on males' tourism expenditure as compared to females' one. As anticipated, uncertainty associated with income and employment levels during recession have a particularly strong effect on tourism expenditure. In particular, uncertainty associated with both income and employment levels have a negative and statistically significant effect on tourism expenditure.

On the other hand, one notable observation is that younger and middle aged tourists seem to be fairly unaffected by the financial crisis, as compared to more mature and senior tourists. Finally, when considering the influence of respondents' future expectations, the empirical results illustrated that future expectations regarding income levels have no influence on current tourism expenditure patterns. Overall, those respondents that were unsure about the effect of the financial crisis on their current tourism expenditure patterns were also more likely to exhibit ambivalence about the future.

The contribution of our paper in the field can be considered from a number of different perspectives.

- *First*, this paper represents a rare application of the examination of the financial crisis into tourism activity from a microeconomic perspective, as opposed to a macroeconomic one. Following Song *et al.,* (2010), this approach is better suited to assist public policy and managerial decision making. Most of previous evidence regarding the effects of previous financial/economic crises on tourism has been accumulated as part of the examination of the 1997 financial crisis on Asian countries (Wang 2009, Song *et al.,* 2003). At the same time, there is another stream of research, growing in parallel, focusing on the effect of a number of other devastating events on the tourism industry (Kuo *et al.,* 2008). All of the aforementioned papers have adopted a macroeconomic perspective on the examination of the effects of the financial crisis on tourism activity.

- *Second*, our approach considers rather uniquely both domestic and international or long haul tourism activity. The survey questionnaire distributed to a sample of 400 individuals enquires about the effect of the financial crisis on their tourism behavioural patterns both at home and abroad. Thus, the paper addresses a major gap in the research literature in the field, namely the importance of domestic tourism as a substitute activity to international and long haul tourism activity (Sheldon and Dwyer 2010).

- *Third,* the paper considers a number of different categories of discretionary tourism expenditure (accommodation, transportation components) as well as a number of other variables (frequency of travel abroad, and at home) and their effect on individual tourism behaviour during periods of financial uncertainty.

References

Kuo, H., Chen, C., Tseng, W., Ju l., and Huang, B. (2008), 'Assessing Impacts of SARS and Avian Flu on International Tourism Demand to Asia', *Tourism Management*, Vol 29, No 5, pp 917 – 928.

Okumus F., and Karamustafa, K. (2005), 'Impact of an Economic Crisis; Evidence from Turkey', *Annals of Tourism Research*, Vol 32 No 4, pp 942 – 961.

Sheldon, P., and Dwyer, L. (2010), 'The Global Financial Crisis and Tourism: Perspectives of the Academy', *Journal of Travel Research*, Vol 49, No 3, pp 3 – 4.

Smeral, E. (2009), 'The Impact of the Financial and Economic Crisis on European Tourism', *Journal of Travel Research*, Vol 48, No 1, pp 3 – 13.

Song, H., Lin, S., Witt, S., and Zhang, X. (2010), 'Impact of Financial/Economic Crisis on Demand for Hotel Rooms in Hong Kong', *Tourism Management,* Vol 32, No 1, 172 – 186.

Song, H., Wong, K., and Chon, K. (2003), 'Modelling and Forecasting the Demand for Hong Kong Tourism', *International Journal of Hospitality Management*, Vol 22, No 4, pp 435 – 451.

Wang, Y. (2009), 'The Impact of Crisis Events and Macroeconomic Activity on Taiwan's International Inbound Tourism Demand', *Tourism Management*, Vol 30, No 1, pp 75 – 82.

The Effects of World Heritage Sites on Domestic Tourism: A Spatial Interaction Model for Italy

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Cultural tourism is gaining increasing importance in the modern tourism industry, and represents a significant force of attraction for tourists (both domestic and international). It allows destinations and regions to both expand their customer base – by gaining new clients otherwise interested in other types of attractions – and to diversify their offer, particularly in the case of destinations which have typically exploited different tourism typologies (e.g. seaside or mountain tourism). Great efforts are made, by national governments and regions, in order to obtain official certification regarding the relevance of their own historical/cultural attractions, for example through UNESCO's World Heritage Sites (WHS) list. Such an aspect seems particularly relevant for a country like Italy, which has a rich historical heritage and a high number of entries in the WHS list, and where regions take an active role in promoting tourism. Using an 11-year panel of domestic tourism flows, we investigate the importance of the regional endowment in terms of WHS from two perspectives: (a) by separately estimating the effects, on tourism flows, of WHS located in the residence region of tourists and in the destination region; and (b) by taking into account potential spatial substitution/complementarity between regions in terms of their WHS endowment.

Labour-Market Conditions in Tourism Activities: Regional Differences in Spain[f]

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Keywords: Tourism, Labour Market.

The aim of this paper is to analyse the labour market conditions in Tourism activities in Spain and to discuss regional differences. The great capacity of tourism to provide employment, especially between groups of workers with a more difficult insertion in the labour market, is one of its most well-known positive aspects. Thus, Tourism could play an important role in achieving the objectives of the Lisbon Strategy, such as more and better jobs. However Tourism employment is often described as low skilled, which is associated with average lower wages, higher percentage of fixed-term contracts, and longer working day than other industries. Nevertheless, this is not true for all tourism activities. Although this description could be close for hotels and restaurants labour market, it is completely different for land transport activities or activities of travel agencies and tour operators. This could be related with the fact that each characteristic tourism industry provides a different percentage of his output to tourists, as it is shown in the Spanish Tourism Satellite Account. As result, our first step is to identify the labour market characteristics of the different tourism activities. These results are clear influenced by the particularities of the different activities (labour market of transport activities is very different from hotels and restaurants activities) and not by a tourism characteristic. Thus, the second step is to analyse how tourism influence in the labour-market conditions after controlling for the particularities of the different tourism activities. In this case, we focus in just one characteristic of the labour market very associated with low-quality jobs; the share of workers with fixed-term jobs. Although Spain is one of the countries with the highest arrivals of tourists, those are not equally distributed by regions. This allows us to identify the degree of specialization of each region in tourism, and to analyse its impact in the share of workers with fixed-term contracts. Results show that the highest tourism specialization of the region decreases the share of workers with fixed-term contracts, after isolating the particularities of the different tourism activities. It seems that this low condition characteristic disappear with the development of the sector in some regions.

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Turkey's Potential Accession into the European Common Aviation Area and Its Impacts on Tourism in the Greek Eastern Aegean Islands: A SWOT Analysis for Chios Island[f]

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The European Union (EU) introduced the third and most fundamental package of air transport liberalisation in 1997, establishing free pricing and full access rights of EU airlines to all intra-European routes including cabotage. As a result, the European Common Aviation Area (ECAA) became a reality. On the other hand, routes between non EU and EU countries are still based on the standard regulatory principles of international aviation related among others to airline designation rights and country of origin rules (Papatheodorou, 2000).

One of these countries is Turkey. Trying actively to become a member of the European Union, Turkey has adopted the Acquis Communautaire in many sectors of its economy and currently negotiates its accession into the ECAA. Such a development could have important implications for tourism in Turkey and indirectly also for neighbouring areas of Greece like the Eastern Aegean islands. This paper examines such issues taking into account that airline liberalisation enhances the accessibility degree and spatial development by increasing the coverage and the frequency of airline services. An open skies policy between the EU and Turkey would positively impact tourism development in Turkey and possibly across the wider geographic region. The present paper focuses on possible implications for the Turkish Aegean coast and the Greek Eastern Aegean islands with primary emphasis on the Izmir area in Turkey and Chios Island in Greece. It analyses the airline network of the two related airports based on inbound passenger traffic statistics. Further to the above, a SWOT analysis is undertaken to highlight the opportunities and threats for tourism on Chios Island that could possibly emerge as a result of the potential accession of Turkey into the ECAA.

Izmir is the third largest city of Turkey, following Istanbul and Ankara. It is the most significant import/export trade port of Turkey, while the inhabitants reach the 3,210,465 people (2008). It is located around a gulf in the eastern central coast of Turkey in Aegean Sea opposite the Chios Island. Chios Island is the fifth largest island in Greece in terms of surface area. It is located in the North Eastern Aegean Sea exactly opposite Turkish Erythraia peninsula and Cesme port. The distance between Chios and Cesme is only 3.5 nautical miles. The population of Chios is located around its port (city centre) in the central eastern coast and in the 64 villages among the island and reaches the 53,817 inhabitants according to the census of 2005. Cesme constitutes the largest leisure resort in the wider region of Izmir, while the distance between Cesme and the city center of Izmir is 75km connected with a speedway. There is an all year Short Sea Shipping link between Chios and Cesme and during the summer period there are daily regular short sea shipping links by 3 companies operating 4 ferries (Nikitakos et al, 2005).

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Adnan Menderes International Airport of Izmir is ranked as the fourth airport of Turkey following Istanbul, Antalya and Sabiha (Istanbul) in terms of total number of passengers served. In the year 2009, Adnan Menderes International Airport (ADB) served 6,201,794 passengers while the 1,667,353 of them were international passengers. As far as the international route network is concerned, during the IATA Summer Season (2010) ADB was connected with many European countries, most of them served only by the air carriers of Turkey, mainly Sunexpress. During the Winter Season (2011) the ADB international route network appears reduced, especially in terms of frequencies but still Izmir is connected with many European hubs. International traffic in Adnan Menderes International Airport has been increasing continuously over the past six years, having recorded the highest growth during 2010 (29,52%).

The international route network of Chios National Airport "Omiros" is very limited. More specifically, it includes only charter flights during summer period (30,000 passengers). Thus, international tourism of the island is heavily dependent on tour operators. The situation has not changed over the last decade. While in 2008 international traffic experienced a particular growth during peak season (July-September), a significant reduction appeared the next two years (26% in 2009), ringing the bell for the inbound tourism in the island of Chios.

Taking the abovementioned into account and focusing on the tourism flows, as far as time and money costs needed for the overcoming distance from the origin to the destination are concerned (Poulaki and Papatheodorou, 2010), a comparative analysis was realized in order to justify correctly the (dis)advantages of the Adnan Menderes International airport of Izmir (ADB) to the Chios Island and its tourism. A market research has been made regarding time needed to be spent and fare needed to be paid in order to reach ten (10) main European hubs by air from Chios via ADB or via Athens International Airport (ATH). The results show that it is much more beneficial to travel via Izmir for the majority of the hubs examined. With exception of Paris and Madrid, all other cities are reached in the same time (approximately - including overnights and stopovers) but with significantly cheaper fares, which is very important for tourism considering that this amount could be spent in the tourism destination. All those are happening at a time that Turkish air transport market is protected and frequencies are low. In the case of a market opening, accessibility will be increased and thus, more opportunities will be given via ADB. Also, more players will enter the market, such as Low Cost Carriers which will reduce the existing fares and also, direct connections to other European cities such as London and Paris will be added to the network of ADB.

Geography leads the above results, given that Chios Island is extremely closer to Izmir and there is no need to access it by air or spend much time by surface transportation. However, the Short Sea Shipping links between the ports of Chios and Cesme need to be enhanced. Accessibility holds the main part of the above scenarios and an open Turkish market with a combination of a good intermodality transport system between Chios and Izmir may provoke unpredictable flows from Chios to Europe via Izmir and vice versa. Finally, the seasonality phenomenon and the scenarios made in the comparative analysis show that those routes are up to now dedicated to leisure traffic and not business travelers due to the latter's limited available time.

References

Nikitakos, N., Ozer D., Cerit G., Oral E.Z., (2005), *Analysis of the Short Sea Shipping Potential between Turkey and the Greek Islands*, Aegean Working Papers Journal #3, Department of Shipping Trade and Transport, University of the Aegean, Chios, Greece.

Papatheodorou, A., (2000), *Evolutionary Patterns in Tourism: A Spatial Industrial Organization Approach*, DPhil Thesis, St. Antony's College, Oxford University, England, United Kingdom.

Poulaki, I., and Papatheodorou, A., (2010), *The Interdependence between Airline Network Planning and Tourism Flows: The Case of Athens Airways Seasonal Routes "Thessaloniki – Mykonos" and "Thessaloniki Santorini"*, 14th Air Transport Research Society World Conference, Porto, Portugal.

The Impact of a Devaluation of a Destination's Currency on Tourism: A Case of Fiji[f]

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Introduction

On 15th April, 2009 the Reserve Bank of Fiji (RBF) announced a devaluation of the Fiji dollar of 20%. At the same time the RBF announced monetary policy changes and credit controls to assist the business sector to have a more stable interest rate environment and allow depositors will earn respectable interest rates. In a statement by the RBF, it "took the(se) measures to cushion the severe effects of the global financial crisis on the Fiji economy. The devaluation will bring the Fiji dollar in line with the major trading partner countries such as Australia and New Zealand. The Fiji dollar had appreciated significantly by around 20 per cent since 2007/2008. This is unsustainable. By correcting the value of the Fiji Dollar it is expected that our exporters will benefit and will provide much-needed boost to tourism" (RBF 2009). The primary reason for the devaluation was concern regarding the level of foreign reserves and banking system liquidity (RBF 2009). Foreign reserves had fallen to critically low levels in the first three months of 2009. Foreign reserves were $441 million prior to devaluation and have steadily increased to $591 million by 28 April 2009, two weeks after the devaluation.

Not surprisingly, Fiji's destination marketing organization, Tourism Fiji, have come out in favour of the devaluation, arguing that devaluation will have immediate and very positive ramifications for the tourism industry (Fiji_Times April 16th, 2009). The devaluation means that the price of Fiji's exports, noted in foreign currency, will decrease, increasing the purchasing power of source markets. Fiji exports will be less expensive on the world market. Hence, standard economic theory would suggest that tourism and other exports from Fiji will increase. This assumes that the supply of exports can increase to meet this additional foreign demand. Yet, the impact of a devaluation of the Fiji dollar for the Fijian economy and tourism in Fiji is more complicated than simply: devaluation is good for exports including tourism and bad for imports. This research tests some of the assumptions made above.

The Impact of Exchange Rate Movements on the Economy

A devaluation impacts both the demand and supply side of the economy. A devaluation might result in a higher level of prices, which could generate a negative real balance. This could lead to lower aggregate demand and output. Alternatively, a devaluation can have a negative effect on aggregate demand through income distribution. For example, aggregate demand and output may decline if income is redistributed from income groups with low propensity to save to income groups with a high propensity to save. Also from the demand-side, if the price elasticities of imports and exports are sufficiently low, the trade balance may worsen (expressed in domestic currecy). From the supply-side, the benefits that accrue to a country that devalues its currency will depend on the extent to which the capital used in production is

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imported as well as the extent to which goods and services used in intermediate consumption are imported or domestically produced.

There has been a significant amount of theoretical research looked at the economic impacts of a devaluation on an economy. Standard economy theory would suggest that the effect of a devaluation on the trade balance is determined by the supply and demand conditions, namely the elasticity of foreign demand for a country's exports and the elasticity of domestic supply of exports, the elasticity of domestic demand for imports and the elasticity of foreign supply of imports. The interactions between the exchange rate, real output, real income and employment are diverse and complex and the direction of impacts are ambiguous. As such, the impacts reduce to empirics.

Fiji's Exchange Rate

Fiji has followed a fixed exchange rate regime since 1975. The Fijian dollar is linked to a basket of currencies of its five major trading partners, namely Australia, Japan, New Zealand, the UK and the USA. The basket is weighted by a three-year moving average of Fiji's direction of trade (Jayaraman and Choong 2008).

The RBF has intervened in the market previously by devaluing the Fijian dollar. In 1988, following the military coup of 1987, the dollar was devalued by 34 percent in order to limit capital outflows. Ten years later, the dollar was again devalued by 20 percent as a reaction to the Asian Financial Crisis of 1997 (Jayaraman and Choong 2008). The justification for these devaluations were that they were corrective measures used to improve the competitiveness of the Fijian dollar. Aside from these major adjustments, the RBF allows the exchange rate to vary by +/-0.07 percent of the central rate.

Methodology

One way to model a devaluation on a host economy is via a Computable General Equilibrium (CGE) model. The real static CGE model follows the interactions and relationships of a small open market economy and solves for a set of prices including production prices, factor prices and exchange rate and levels of production that clear all markets. CGE models are a standard tool of empirical analysis, and are widely used to analyze the aggregate welfare and distributional impacts of exogenous shocks or policies whose effects may be transmitted throughout the economy. The underlying benchmark data used to model the economy comes from Kumar (Kumar 2001). This original data set was constructed for the year 2002. The input output table was then put through a RAS procedure to update the matrix to 2007 with the target GDP by sector data published by Fiji's Bureau of Statistics. RAS is a widely used methodology to balance or update input output tables. It is used when new information on the matrix row and column sums becomes available. The input output table has been aggregated into 14 sectors. The table differentiates final demand into household consumption, exports, tourist expenditures, government consumption, government investment and private investment. The table also differentiates final payments into labour income, operating surplus, several different taxes (company taxes, production taxes, tariffs) and imports.

Results

The results show that, as expected, the devaluation makes Fiji more competitive in terms of tourism and has a positive impact on tourism with international tourists, who hold foreign currency. The tourists are now able to purchase more tourism in Fiji. Tourism consumption increases by 5.3%. Likewise, for other exports, the devaluation has a positive effect with exports increasing by 9.5% but imports are now more expensive in terms of Fijian dollars so imports are estimated to decrease by 38.8%. However, the devaluation is estimated to have negative impacts on the economy also. Net Value Added is estimated to decrease 5.0% and domestic production decreases by 9.6% as firms choose to export rather than supply goods and services on the domestic market. Imports, which are inputs into this domestic production, are now more expensive. Labour increases 3.0% as a result of the decrease in the average wage rate relative to the consumer price index. Capital decreases marginally by 0.7% and the return to capital falls by 6.5% relative to the CPI. Of more concern are the large estimated decreases in residents' consumption and investment. These components of final demand are estimated to fall 20.7% and 21.3% respectively. Decreases in private consumption and investment, which was not fully offset by the increase in labour, have resulted decreasing overall Fiji residents' welfare by 14.3%. As the representative households are endowed with primary factors, the decrease in wage rate and return to capital mark a decrease in consumption resulting in lower savings / investment and consumption. Further, in residents' consumption bundle, they substitute away from more expensive imported goods but not entirely.

Conclusions

In terms of policy decisions, there is a need to take into account the full impact of a devaluation and to acknowledge the underlying structure of the economy and the limitations that the economy might have in taking advantage of the economic benefits of a devaluation. As the tourism research literature predicted, there was an increase in tourism demand for Fiji. Similarly, the level of foreign reserves and banking system liquidity recovered as a result of the devaluation. Nevertheless, other areas of the economy have suffered with private consumption, investment, and domestic production all estimated to decrease as a result of the devaluation.

At the sectoral level, the tourism oriented sector such as the Hotel sector, the Restaurant sector and the Transportation sector as expected to benefit whereas other sector are estimated to lose out. Qualitatively, the results are robust to different values of the elasticities of tourism demand, the elasticity of transformation and the elasticity of substitution.

Hence there is a need to strengthen the inter-sectoral linkages in the tourism-oriented sectors. This issue has been noted by several authors (Pratt 2011). This is easier said than done on a geographically remote South Pacific country with limited natural resources, land tenure issues and a lack of local capital for large investments and, in many cases, the absence of a significant local entrepreneurial class. Nevertheless, the issue has been acknowledged by both the private and public sector in Fiji with the RBF now offering scholarship to local chefs to be trained overseas in the preparation of high quality foods using local ingredients. Further, there has been a concerted effort of many of the resorts in Fiji starting their own gardens to supply their restaurants.

References

Fiji_Times. (April 16th, 2009). "Tourism salutes cash devaluation." <u>Fiji Times</u> Retrieved 24th February, 2010, from http://www.fijitimes.com/story.aspx?id=119278.

Jayaraman, T. K. and C.-K. Choong (2008). "Exchange market pressure in a small Pacific Island country: a study of Fiji: 1975-2005." <u>International Journal of Social Economics</u> 35(12): 985-1004.

Kumar, S. (2001). A non-survey of input-output tables of Fiji using the RAS method (Masters Thesis). <u>School of Social and Economic Development</u>. Suva, University of the South Pacific.

Pratt, S. (2011). "Economic Linkages and Impacts across the TALC." <u>Annals of Tourism Research</u> 38(2): 630–650.

RBF (2009). Press Release 25/2009: Reserve Bank Announces the Following Monetary Policy Changes,

 http://www.reservebank.gov.fj/docs/Press%20Release%20No%2016%20-%20Reserve%20Bank%20Announces%20The%20Following%20Monetary%20Policy%20Changes.pdf.

RBF (2009). Press Release 29/2009: Strong Growth in Fiji's Foreign Reserves. http://www.reservebank.gov.fj/docs/Press%20Release%20No%2029%20%20Strong%20Growth%20In%20Fiji's%20Foreign%20Reserves.pdf.

An Analysis of South Africa's African Tourism Market[f]

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Tourism to South Africa has increased consistently over the last 15 years and the country has become one of the most popular tourist destinations, not only in Africa, but also in the world. With 10 million tourists visiting the country, it has grown to become an important industry, contributing more than 8 per cent to the country's GDP and it has even surpassed earnings from gold exports as an important source of foreign exchange. However, a closer inspection of the arrivals statistics reveals that the majority (75 per cent) of tourists are from Africa. In addition to this, 75 per cent of all African tourists are from South Africa's neighbouring countries. However, most research on tourism to South Africa focuses on intercontinental arrivals. Reasons cited for the exclusion of African tourists include that these tourists visit South Africa for other reasons than tourism such as shopping, business and study. This research attempts to address this shortcoming by analysing the trends in arrivals and spending by African tourists to South Africa. This paper sheds light on the reasons for African tourists to travel to South Africa, and shows the important role of South Africa as a wholesaler for Africa. It is postulated that the link between trade and tourism is much stronger for South Africa and its neighbours than is the case for other countries.

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Hotels and Rental Second Homes in the Same Tourism Market Area: How Is Valued the Localization Effect amongst Them?

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Keywords: Hotels, Second Homes, Private and Public Attributes, Price, Hedonic Techniques.

Hotels and second homes are the main markets in the coastal tourist area of Costa Brava (Spain) with more than 65% of beds. It is well-known that tourists are offered a list of private services but they are willing to pay also for a specific physical environment (Rigall-I-Torrent and Fluvià, 2010) in an extended area where the accommodation is located. All this bundle of characteristics set up the final price of the accommodation.

Using a data base from brochures of hotels and second homes (with prices and private characteristics), the first goal of the paper is to scrutinized what are the private attributes that most influence the final price of both types of accommodation considering that some of them are common characteristics: common garden, swimming-pool, car park and distance to the nearest beach.

Moreover, the analysis of how public goods in the municipalities where accommodations are located may influence on the final price is also relevant: cultural and sports facilities, population (density), restaurants, beach quality, security (police), natural landscape, nightlife and so on. Some econometric regressions based on hedonic techniques are run considering both private and public attributes.

The second goal is to find out whether there are differences amongst different tourist accommodations such as hotels and second homes. Because tourist profiles are likely different (e.g. in rural tourism -Albadalejo-Pina and Díaz-Delfa, et al., 2005-) they could value differently the public attributes selected.

The paper's main contribution is to distinguish from a price market how consumer's value different tourist lodgings selected (especially differences in value of common characteristics) and whether or not there are differences on how they value the range of public or environment attributes.

Sustainability of Ecotourism Resources at Taman Negara National Park: Contingent Valuation Method[f]

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Ecotourism has been growing rapidly; it is claimed as the fastest growing sector in the tourism industry. Ecotourism promotes conservation and the long term viability of tourism. Ecotourism is closely related to the sustainable use of resources including natural, social and cultural. Most of ecotourism areas such as the national park exist as public facilities because of their non-rival consumption and non-exclusion in nature. The designation of national parks as public facilities creates free riders and over-usage problems. Some national parks had implemented charges such as entrance permit to visitors but the problem is, it is insignificant compared to the utilities obtained. Subsequently, it creates problems especially for the pricing system thus related to efficient pricing policy and the sustainability of ecotourism resources.

In line with that, we need the monetary value of the environmental resources; Economic Valuation. Economic Valuation is an attempt to put a quantitative value on environmental resources (Barbier *et al*., 1997).There are various techniques available for estimating the value of non-market goods and services. The TEV technique is divided into two groups: Stated Preference Techniques (SP) and Revealed Preference Techniques (RP). The SP technique is one that tries to discover an individual's preferences and it is based on a questionnaire (Bann, 2002). Contingent Valuation Method (CVM) is the most popular and frequently used valuation tool in environmental economics. Other techniques in SP include Contingent Rating, Contingent Ranking, Choice Modelling and Paired Comparisons (Mitchell and Carson, 1989). The second group is the RP technique. It is called the 'revealed preference' technique, since consumer preferences are 'revealed' in this technique through their consumption of goods and services (Mathews *et al*., 2001). RP techniques include Hedonic Property Pricing, Travel Cost Method (TCM) Random Utility Modelling and Averting Behaviour. The most common is TCM, which is normally used to estimate values for recreational sites.

This paper applies dichotomous choice (DC) CVM to access the net economic values of recreational resources in Taman Negara National Park (TNNP).There are four types of

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[f]Full paper available on memory stick.

elicitation technique used in CVM; bidding game (BG), payment card (PC), open ended (OE) and dichotomous choice (DC). The most important concept in CVM is Willingness to Pay (WTP). WTP is the amount or value of money that the individual are willing to pay for goods and services. The DC is also called the referendum format approach (Mitchell and Carson, 1989) and most frequently recommended form for CVM questionnaires (Arrow *et al.*, 1993). In DC format, a respondent is asked whether he/she would be willing to pay a stated monetary value. A 'YES' answer will be given if the true WTP is in excess of the stated monetary value and 'NO' for otherwise. The main advantage of this method is that it is like a 'take or leave it' approach because the situation it presents is similar to when consumers make a purchase of ordinary goods and services. This approach will reduce biases in CVM such as strategic bias, design bias and interviewer bias compared to other elicitation approaches (Mitchell and Carson, 1989).

A real survey was conducted at the gate of TNNP in two periods, 10 -17 March 2009 and 1-13 May 2009. In order to get a precise sample, systematic sampling was applied. The third visitors who entered the park were chosen as the sample. The average time taken for the survey was about 20-30 minutes. A total of 229 respondents participated in this survey. Only, 196 respondents answered the questionnaire completely. Thus, the useable questionnaire was 196.

Based on the estimation results, equivalent WTP measures were calculated using logit and probit models (Table 1). The calculated mean WTP ranged from RM11.01 to RM18.27 for the logit model, and for the probit model ranged from RM19.00 to RM30.32. The probit model performed slightly better than logit model in terms of McFadden-R^2. Therefore, the mean WTP obtained from the probit model would be a more reliable measure; RM23.36. Thus, estimation of the net benefit of TNNP for the year 2009 for visitors of 86674 is RM 2,024,704.64 (Table 2). This study shows that visitors are willing to pay more for entrance permit; compared to current entrance permit (RM1). The implication of this study is important as a guideline to assist the policy makers in terms of welfare measures such as recreational benefits and design an effective pricing policy at TNNP. For TNNP, the result of this study also provides an economic ground for its management effort as well as the policy makers' decision to continue maintaining the area as a national park; thus contributing to the long-term sustainable development of ecotourism areas.

Table 1: Estimated of WTP

	Lower 5%	COEFFICIENT	Upper 5%
Logit Model	RM11.01	RM13.74	RM18.27
Probit model	RM19.00	RM23.36	RM30.32

Table 2: The Estimation of Net Benefit

Year	No. of Visitors[a]	Expected Net Benefit (RM)[b]
2001	58532	1,367,307.52
2002	60156	1,405,244.16
2003	54230	1,266,812.80
2004	60026	1,402,207.36
2005	71631	1,673,300.16
2006	79758	1,863,146.88
2007	81974	1,914,912.64
2008	84142	1,965,557.12
2009	86674	2,024,704.64

Note:

[a]Source form DWNP, 2010

[b]Calculated from Table 1 figure.

References

Arrow, K., Solow, R., Portney, P.R., Leamer, E.E., Radner, R. and Schuman, E.H. (1993). Report of the NOAA Panel on Contingent Valuation. Report to the General Counsel of the US National Oceanic and Atmospheric Administration, Resources for the Future, Washington, DC.

Bann, C. (2002). An overview of valuation techniques: Advantages and limitations. *Asean Biodiversity* (April-June), 8-16.

Barbier, E.B., Acreman, M. and Knowler, D. (1997). *Economic valuation of wetlands: A guide for policy makers and planners*. Gland, Switzerland: IUCN.

Mitchell, R. C., and Carson, R. T. (1989). *Using Surveys to Value Public Goods: the Contingent Valuation Method* (Resources for the Future). Washington, D.C.

Mathews, L.G., Kask, S., Rotegard, L. and Stewart, S. (2001). Using economics to inform national park management decisions: A case study on the Blue Ridge Parkway. Retrieved December 13, 2010 from http:///www.georgewright.org/56mathew.pdf

Critical Appraisal of Tourism in North East India

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India, the land of Vedas, the land of Yoga, the mystical land of bewitching beauty stands apart from the rest of the world. The culture of this land cannot be defined in few lines . it is probably the only country in the world that gave birth to more than one religion, and in spite of different cultures living together in this holy land, yet are tied by one thread, by being "Indian". North East India previously consisted of the seven sisters: Assam, Meghalaya, Tripura, Mizoram, Manipur, Arunachal Pradesh and Nagaland; however now the inclusion of Sikkim has added the eighth one. Indeed pristine and God blessed land. A tourist is bound to get all he seeks to satisfy his curiosity. Green hills and valley, blue mountains, snow, the red river, archeological wonders, monasteries and varied temples, mosques, churches, rituals , cultural and colourful people and moreover varied tasty food, the list yet is not completed, every single one are ingredients of this beautiful land. Therefore, to promote it to the rest of the globe, the Government is planning various marketing avenues for it, but also needs to understand the criticality of the tourism impacts that can possibly occur, if proper steps and a planned approach is not followed, in terms of maintaining the influx of tourist as well as the balance of the environment then may be in long run the success story might not be able to sustain in this territory.

Tourism is a very sensitive activity and thus needs careful and planned approach. Nowadays it is observed that the places which have high tourist activity is facing colossal indirect problems. Construction and conservation are the key words and to strike a balance is the question, therefore since tourism is at its initial stage in the North East India and since the Government has planned to take certain steps to market it, a critical appraisal of tourism is a must. The only mantra is most of the countries is "more tourist means more money". Hence, In this paper impacts of tourism industry is covered, it is imperative to check all the affirmatives as well as the negatives to fit this emerging business in the North Eastern part of India so that the balance between the two C's can be achieved so that the tourism business here flourishes and sustains for better livelihood of the natives.

Competitiveness Index Versus Real Exchange Rate as the Proxy for Price in Models of International Outbound Tourism

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The review of literature on outbound tourism reveals that the variable, real exchange rate (RER) has failed to act as an adequate proxy for prices in tourism demand models estimated using Australian data. RER has been systematically found to be statistically insignificant. It is argued here that in spite of the results obtained, it is not reasonable to conclude that Australian travellers are insensitive to changes in the value of their local currency when deciding on the purchase of international trips. It is suggested that, since Australia is an open economy experiencing export-led growth, rising export leads to rising income level while also influencing the real value of the Australian dollar in terms of the currency of its main trading partners. Since income level and RER are affected by common factors such as changes in monetary policies, the inclusion of both in a model of outbound tourism may attenuate the effect of one. This is possible that in previous models of international departures from Australia the use of measures of the country's income such as GDP or GDP per capita have in fact reduced the effect of RER causing the price of international trips to sound seemingly unimportant in explaining international travel from Australia. On the other hand, as expected income has been found to be a crucial determinant of international departures. This paper develops a competitiveness index (CI) which is then utilised as a proxy for prices in a dynamic panel data model of Australian outbound tourism. International departures to 47 destinations for the period of 1991 to 2008 are considered. The estimation results show that while RER are insignificant and yield an elasticity of -0.004, CI is significant and generates a price elasticity of -0.913. CI clearly outperforms RER as the price variable in the model.

Evidence from China Warns: Visa Restrictions Hurt the Economy and Potentially Hamper Destination-Marketing Productivity[*]

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Governments spend considerable amount of public resources, including tax dollars, on marketing their cities or countries. The goal is to become a strong brand attractive for exports, direct foreign investment and tourism. However, self imposed strict visa regulations, which have the potential to hamper the productivity of marketing and branding, are fairly common. There are valid reasons for imposing strict visa regulations including the two most important, national and economic security. Although strict visa regulations are a common phenomenon around the World, the tourism literature has not studied the potential impact on tourism demand, hence the economy. This study is conducted to generate awareness about potential detrimental impacts of visa restrictions on a country's economy. The People's Republic of China (PRC), with a history of strict visa regulations was used as a case study. The research reported in this paper is based on the standard tourism demand function which models the causal relationship between the tourism demand and a number of macroeconomic variables. The model has a dynamic specification known as the Autoregressive Distributed Lag Model (ADLM), which takes the time path of tourists' decision-making process into consideration by using both current and lagged values of variables. Results show the negative effect of visa regulations on both the country level and prefecture level economies. Implications and recommendations are provided.

Analysis of Economic Growth and Taiwan's Tourism Expansion: A Threshold Regression Estimation Approach

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In decades, the worldwide tourism industry has grown remarkably, owing to the increasing demand for leisure activities and decreasing average working hours. Moreover, based on the vector autoregression (VAR) model and the significance test for the two-way relationship, such as Granger causality test, extant literature has found mutual influence between the growth in international tourists and economic growth in many countries, including Taiwan (Kim et al., 2006). Nevertheless, the fore-mentioned approach might lead to the potential problem of model specification, that is, near multicollinearity. Concretely speaking, Taiwan is a typical and well-known export-oriented East Asian nation, and therefore its GDP showed strongly pro-cyclical characteristic with the global economic fluctuations. In other words, Taiwan's economic growth might be highly positively correlated with its customers' economic performances, such as the GDP growth of Japan, China, Hong Kong, Korea, U.S. and ASEAN countries. The economic performance of these countries represented the income level of tourist arrivals, and thus affecting their willingness to "tour" and the ability to spend.

Consequently, conducting Granger causality test between Taiwan's economic growth and tourism expansion by VAR model, would inevitably suffer from the near multicollinearity problems resulted from contemporaneously using both Taiwan's GDP and the income of tourist arrivals, maybe the GDP or personal disposable income (PDI), as the explanatory variables (or regressors). Theoretically speaking, in some applications of near multicollinearity, parameter estimates are very sensitive to small changes in data, or it is also possible that individual t ratios are all insignificant, but the regression F statistic is highly significant. In this paper, we try to construct a tourism demand model and then regress the tourist arrivals on those exogenous variables used in the literature, including (tourists') income, relative prices, exchange rates, dummy variables, and even transportation cost. Besides, we also incorporate the threshold model and affiliated bootstrapping method presented by Hansen (2000), and take Taiwan's economic growth as the threshold variable, instead of explanatory variable, thus avoiding the fore-mentioned near multicollinearity problems. According to the empirical results of threshold regression, we found that there might exist some asymmetry characteristics of tourism demand for Taiwan. In fact, the estimated intercept and coefficients of explanatory variables are significantly different in the regression model, regarding the high or low economic growth rate of Taiwan.

Reference

Hansen, B. E. (2000), "Sample Splitting and Threshold Estimation," *Econometrica*, 68, 575-603.

Kim, H. J., M. H. Chen, and S. S. Jang (2006), "Tourism Expansion and Economic Development: The Case of Taiwan," *Tourism Management*, 27, 925-933.

Global Financial Crisis and Its Impact on Tourism

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The recent financial crisis has potentially been the strongest shock to impact upon international tourist arrivals since modern tourism began in 1975. However, this is a relative question, and in order to assess the impact on international tourism flows it is necessary to compare the impact with other shocks of varying types.

A first step in understanding the impacts of these shocks is to categorize and measure their relative impacts. Some shocks are based upon wars (Iraq, March 2003) or health scares (SARS, April 2003), and there are others based upon internal political uprisings (Tiananmen Square, June 1989, Bangkok riots April, 2010), adverse weather conditions (Guam, December 2002), natural disaster (Tsunami, December 2004, Pakistan, June 2010), terrorist attacks (Bali, October 2002 and 2005) and there have been two based upon financial crisis (Asian crisis, July 1997 and the Financial Crisis of 2008-2010). The question analyzed here is how the recent financial crisis that began in 2008 but remains a concern for tourism, compares in terms of depth and spread to other shocks that have occurred since 1998? Whether the substitution process (for example, a holiday in Phuket instead of Bali) and association process (for example, SARS affects Singapore and therefore Malaysia) have potentially predictable characteristics, and whether these findings can be used to provide insights into the nature of shocks in future situations. An understanding of the nature of tourism shocks is of considerable interest in future planning. It is argued that it may be possible to predict the nature of the impact of particular types of shocks upon arrivals, in terms of the spread of the impact, duration, and depth, based upon the shock severity.

Statistical comparison is made to measure the strength of the arrivals decline in the primary destination, and the duration of the shock. Different categories of shock display different characteristics of geographic dispersion, for example SARS first impacted in Hong Kong and spread outwards to neighbouring countries, whereas the recent war in Iraq initially created a worldwide downturn that has contracted to Iraq and its neighbours. The question examined in detail here is the extent of the impact of the current financial crisis, and its relevance to international tourism in the future.

Asia Pacific Tourism – The Recovery

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The financial crisis began to impact worldwide on tourist arrivals in 2008 and this impact continued into 2009, and for some destinations into 2010. There is still uncertainty about a double-dip recession in some developed countries, and concern about the new pattern in the world variation in exchange rates from previous high international travel growth years. The relatively lower values of the Euro, Sterling and the US dollar have the potential to lower flows from Europe and North America, and change international travel patterns that have been in place for many years. Is the era of high growth recovery ranging between 6 to 10 percent for many of the Asia Pacific travel destinations over? Asia Pacific has been the driving growth area for international tourism for many years. If the recovery in Asia Pacific is not strong what does this mean for growth in travel worldwide? Although there is evidence of recovery in 2010 it is highly variable across destination markets. An in depth analysis is conducted by the authors into the travel markets of 43 Asia Pacific destinations based upon the international travel patterns from 1990 to 2009 to forecast the recovery through 2011 to 2013. The Asia Pacific region studied includes the majority of countries in North Asia, Southeast Asia, South Asia, North America and Oceania including the significant markets of Australia, Canada, China (PRC), Chinese Taipei, India, Japan, Korea (ROK), Malaysia, Singapore, Thailand and the USA. The methodology used comprises several forecasting models including, neural network, structural models and a time varying parameter model that are used on the basis of test accuracy in a post sample period from 2007 to 2009, along with an expert opinion phase. The results from the analysis are extremely current, and the forecasting will be completed in early 2011, providing a major research project capable of throwing significant light on the questions raised above.

Empowerment of Tribal People by Promoting Medical Tourism in Western Ghat Region in Karnataka

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According to World Tourism Organization (WTO), the word "Tourism" comprises of "the activities of persons traveling to and staying in place outside their usual environment for leisure, business and other purposes." It is widely acknowledge that Tourism is the largest and fastest growing industries in the world. According to WTO it generates annual income of around US$ 680 billion in 2005 globally. Further, 125 nations of the world's economy depends on tourism. It contributes over ten per cent to global GDP, generating employment for over 240 million.

When a person travels across the border and outside their usual environment, to seek medical service, the travel portion of the trip travel is called "medical travel", and upon arrival, such person is called "medical tourist", and such activities which includes utilization of medical services by the medical tourist, be it direct or indirect - hospitality, cultural exposure or site-seeing, is called "Medical Tourism".

The attraction of Indian traditional medicine will be a significant contributor to the inflow of foreign travelers into India. To cater to their needs of rehabilitation and rejuvenation, we have to go to the exotic locations and establish the infrastructure for the medical tourists.

Western Ghats is one such place which is popular not only for its beauty but also for its intensive resources. The green treasure of this area is known for its contribution towards development. There is a whole lot of medicinal plants which have a high economic value and also known to solve many of the health problems of the globe. Blending it with yoga, our country can benefit from medical tourism to a large extent.

Though the growth in tourism in India has been impressive, India's share in global tourist arrivals and earnings is quite insignificant. India's ranking in T&T is 146th in relative contribution to national income out of 176 nations. (WTTC 08-09).The rapid growth and impact of this industry has placed it at the centre of international discussions on sustainable development. State of Karnataka is famous for large tracks of Tropical Evergreen Forest called as 'Western Ghat forest' which is internationally acknowledged as an environmental "hot spot" because of its biological diversity. Western Ghats run parallel to the West Coast covering 21,756 km; for about sixty percent of the Western Ghats is located in the Karnataka, embracing 25 taluks of eight districts of the state. Well-covered dense forests provide wild foods and natural habitats for native tribal people.

With this background, this paper takes into consideration some of the important region within the Western Ghats range in Karnataka and the indigenous people who are living in such places from time immemorial, their knowledge regarding the medicinal plants in and around these place and how this resource can be used to promote medical tourism in these places and also empower these people with the help of the income accrued from tourism promotion.

Assessing Impacts of Crises Events on International Tourism Demand of Thailand[*]

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The aim of this article is to assess the effects on the number of foreign tourist arrivals to Thailand derived from nine major crises events during 2001-2009. The study applies SARIMA with intervention and X-12-ARIMA models. The results of this study reveal that the magnitude of the effect are different from one crisis to another. These results would be very useful for policy planning and implementation to prevent these crises to occur again in the future. They also provide as important information for effective decision making in the allocation of budget to be used appropriately to promote or to revive tourism industry and in accordance with each crisis's size of impact and with difference in each foreign tourists' sensitivity.

From the generally accepted criteria used to classify events as crisis (Faulkner, 2001; Moreira, 2007), eight of the nine events considered in the paper are regarded as crises. They are: the terrorism on the World Trade Center tower in the U.S. (9/11), the outbreak of the SARS, the outbreak of the Bird Flue (H5N1), the military coup in Thailand in 2006, the U.S. Financial crisis, the closure of Suvannabhumi and Don Muang airports, the Bangkok violence, and the outbreak of Influenza 2009 (H1N1). The Tsunami is regarded as natural disaster.

All the nine crises are one-off events with short intervention shocks or called pulse impact on tourism demand (Coshall, 2003). Previous studies have shown that intervention analysis is one of the appropriate techniques to be used to estimate the effect on the number of tourists due to a crisis of one-off event. It can also be used to assess the impact of a external situation on the forecasting estimates (Goh and Law, 2002; Ismail *et al*., 2009; Min, Lim and Kung, 2010) leading to more forecasting accuracy (Goh and Law, 2002; Coshall, 2003; Min, 2008; Song and Li, 2008). ARIMAX model is not used here since it must have explanatory variables which could reflect the magnitude of the effect. For most of the events considered in the paper (military coup in 2006, the Bangkok violence, or the closure of the two airports) it would be difficult to get such data.

Table 1: Major crises during 2001-2009 with negative impacts on Thai tourism

Crisis event	Starting month of crisis
1. Terrorism on the U.S. World Trade Center tower (9/11)	September 2001
2. SARS	March 2003
3. Bird flu (H5N1)	February and July 2004
4. Tsunami	December 2004
5. Military coup in Thailand	September 2006
6. U.S. financial crisis	September 2008
7. Closure of Suvannabhumi and Don Muang airports	November 2008
8. Violence in Bangkok	April 2008
9. Influenza 2009 (H1N1)	May 2009

Source: Online

However, in order to use SARIMA with intervention, the duration of the crisis must be known so that dummy variables could be consistent with empirical data. Moreover, in assessing the impact of a crisis, the duration is also crucial (Moerira, 2007), hence this study employs a X-12-ARIMA to decompose the irregular component of time series to assess the duration of each crisis. Then that information is used to determine the intervention variables of the SARIMA with intervention model.

The results of this study show that the nine crisis generate a statistically significant decline in the number of foreign tourist arrivals Thailand. The impact of each crisis is different from each market, depending on the time period of occurrence, duration, type of crisis, and tourists markets themselves. The epidemic outbreak had the greatest impact on the foreign demand for Thai tourism but the loss from the impact has a tendency to decline if similar event would recur again in the future. The impact from domestic chaos is found to be relatively small for the first time of its occurrence but has a tendency to be larger with its future recurrence as the event would lead to higher risks for Thai tourism. For natural disasters, such as the Tsunami, the results show that the impact on demand for Thai tourism ranks second after SARS, but with relatively small percentage loss per month in comparison with other crisis events. The recovery of demand after this event is also found to be the fastest. Details of the results also show that the impact from this event is serious in the first month after the occurrence of the event but it is much less in later months. The reason for this may be the fact that this type of crisis is something uncontrollable and the risk of its occurrence is very low. The situation is different from that of domestic chaos which is controllable. The duration and the degree of impact from terrorism on foreign demand for Thai tourism are found to be relatively small as Thailand is not considered as a country with terrorism risks.

The results suggest that Thailand should put great importance on how to deal or prevent domestic chaos and set this as its primary goal. Such events affects foreign tourists' risk perception which may reasonably be an important factor determining their decisions to choose Thailand. Thailand has shown to be well prepared in dealing with epidemic outbreaks, hence the same policy should be undertaken with any future occurrence. In dealing with confidence building after each crisis event, East Asia should be of primary concern since those countries are found to be more sensitive to crises. Measures to deal with problems from

these crises should be designed to suit each foreign markets as different markets respond to different crisis differently.

References

Coshall, J. (2003), 'The threat of terrorism as an intervention on international travel flows', *Journal of Travel Research*, Vol 42, No 1, pp 4-12.

Faulkner, B. (2001), 'Towards a framework for tourism disaster management', *Tourism Management*, Vol 22, No 2, pp 135-147.

Goh, C. and Law, R. (2002), 'Modeling and forecasting tourism demand for arrivals with stochastic nonstationary seasonality and intervention', *Tourism Management*, Vol 23, No 5, pp 499-510.

Ismail, Z., Suhartono, A., Yahaya, A. and Efendi, R. (2009), 'Intervention model for analysis the impact of terrorism to tourism industry', *Journal of Mathematics and Statistics*, Vol 5, No 4, pp 322-329.

Min, J.C.H. (2008), 'Forecasting Japanese tourism demand in Taiwan using and intervention analysis', *International Journal of Culture, Tourism and Hospitality Research*, Vol 2, No 3, pp 197-216.

Min, J.C.H., Lim, C. and Kung, H.-H. (2010), 'Intervention analysis of SARS on Japanese tourism demand for Taiwan', *Quality and Quantity*, Vol 45, No 1, pp 91-102.

Moreira, P. (2007), 'Aftermath of crises and disasters: Notes for an impact assessment approach', In Laws, E., Prideaux, B. and Chon, K. (Eds), *Crisis Management in Tourism***,** Wallingford, Oxon: CAB International, pp 51-65

Song, H. and Li, G. (2008), 'Tourism demand modelling and forecasting–A review of recent research', *Tourism Management*, Vol 29, No 2, pp 203-220.

Estimating Thailand's Long-Run Tourism Demand[*]

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This paper aims to estimate Thailand's long-run tourism elasticity of demand by applying dynamic ordinary least squares (DOLS). A long-run static model of time varying parameter (TVP-LRM) is also used to assess the potential structural change of Thailand's tourism demand in 1997 caused by the economic crisis and the change in the exchange rate policy. The study also analyses the different demand elasticity between high and low tourist seasons, and the estimated differences derived from using annual and monthly data. The results of the study will be useful for policy makers and agencies responsible for tourism planning and promotion and to ensure that the correct strategy is designed for each market during different periods/seasons.

The number of tourist arrivals is used as the dependent tourism demand variable (Crouch, 1994; Song and Li, 2008; Song, Witt and Li, 2009). Regarding the explanatory variables,, GDP per capita is used as a proxy of tourists' income (Narayan, 2004); the price of tourism is captured by the real exchange rate as it does reflect the relative price that foreigners have to pay when they visit a tourism destinations (Song and Li, 2008; Habibi and Rahim, 2009; Song, Witt and Li, 2009). Similarly the prices of substitute destinations are measured using relative prices (Habibi and Rahim,2009; Song, Witt and Li, 2009). Log-linear functional form is used in this study, since the estimates of demand elasticity could be directly assessed from the coefficients of the proposed model (Song, Witt and Li, 2009; Song, Kim and Yang. 2010).

The KPSS-test (Kwiatkowski *et al*., 1992) and HEGY-test (Hylleberg *et al*., 1990; Franses, 1991 and Beaulieu and Miron,1993) are employed for testing the stationary of data, and the ARDL bounds test (Pesaran, Shin and Smith, 2001) is used to test the co-integration of the Thailand's long-run tourism demand model. As the available data set in this study is not enough for the application of the ARDL, a dynamic ordinary least squares (DOLS) method (Stock and Watson, 1993) is applied in the estimation of Thailand's long-run tourism demand. DOLS gives similar coefficient as the ARDL (Narayan and Narayan, 2005; Habibullah and Baharom, 2008), and those coefficients are more consistent with those estimated using the Maximum Likelihood (ML) method (Ibrahim, Padli and Baharom, 2009). In order to assess if Thailand's 1997 economic crisis and the changes in foreign exchange rate policy generated a structural change in long-run tourism demand, a long-run static model of time varying

parameter (TVP-LRM) in the form of state space (SS) is used with Kalman filter algorithm to estimate the model's coefficients (Li *et al*., 2006; Song, Witt and Li, 2009).

The results of our study show that Thailand is regarded as a luxury good in our major foreign tourist markets. For the aggregate, the Thailand's long-run tourism demand had an income elasticity of 1.493 and a price elasticity of 1.570, while cross elasticity (1.813) is higher than price elasticity. This indicates that changes in prices of its substitutes would have greater influence on Thailand's tourism demand than changes in its own price. It is also found that each of the foreign tourist markets had different demand elasticity. The economic crisis and the change of exchange rate policy in 1997 had led to structural changes in demand for all the foreign tourist markets with the exception of South Korea and the U.S. Regarding the potential presence of seasonal differences, the estimates suggest that demand elasticity is stable during tourist seasons.

The results of the study lead to the conclusion that the responses of foreign tourists to changes in income and prices are stable among seasons and depend on the impact of various factors which in turn leads to changes in their budget allocation for tourism.

As a policy implication, the study suggest that any action should be tailor made to suit each country of origin, especially policies which would have impact on the price of Thai tourism as foreign tourists in different markets respond differently to changes in price and income. Monitoring policies, especially price related policies, of substitute destination (countries) should be carried out since changes in prices of substitute destinations are shown to have considerable impact on Thai tourism. At the same time, any policy which would result in the differences in prices between high and low-season should not be implemented.

References

Beaulieu, J.J. and Miron, J.A. (1993), 'Seasonal unit roots in aggregate US data', *Journal of Econometrics*, Vol 55, No 1-2, pp 305-328.

Crouch, G.I. (1994), 'The study of international tourism demand: A review of findings', *Journal of Travel Research*, Vol 33, No 1, pp 41-54.

Franses, P.H. (1991), 'Seasonality, non-stationarity and the forecasting of monthly time series', *International Journal of Forecasting*, Vol 7, No 2, pp 227-208.

Habibi, F. and Rahim, K.A. (2009), 'A bound test approach to cointegration of tourism demand', *American Journal of Economics and Business Administration*, Vol 1, No 2, pp 165-172.

Habibullah, M.S. and Baharom, A.H. (2008), 'Crime and economic conditions in Malaysia: An ARDL bounds testing approach', *MPRA Paper No. 11910*, Munich Personal RePEc Archive.

Hylleberg, S., Engle, R.F., Granger, C.W.J. and Yoo, B.S. (1990), 'Seasonal integration and cointegration', *Journal of Econometrics*, Vol 44, No 1-2, pp 215-238.

Ibrahim, M.H., Padli, J. and Baharom, A.H. (2009), 'Long-run relationships and dynamic interactions between housing and stock price in Thailand', *Asia Academy of Management Journal of Accounting and Finance*, Vol 5, No 1, pp 93-105.

Kwiatkowski, D., Phillips, P.C.B., Schmidt, P. and Shin, Y. (1992), 'Testing the null hypothesis of stationarity against the alternative of a unit root', *Journal of Econometrics*, Vol 54, No 1-3, pp 159-178.

Li, G., Wong, K.K.F., Song, H. and Witt, S.F. (2006), 'Tourism demand forecasting: A time varying parameter error correction model', *Journal of Travel Research*, Vol 45, No 2, pp 175-185.

Narayan, P.K. (2004), 'Fiji's tourism demand: The ARDL approach to cointegration', *Tourism Economics*, Vol 10, No 2, pp 193-206.

Narayan, P.K. and Narayan, S. (2005), 'Estimating income and price elasticities of imports for Fiji in a cointegration framework', *Economic Modelling*, Vol 22, No 3, pp 423-438.

Pesaran, M.H., Shin, Y. and Smith, R.J. (2001), 'Bounds testing approaches to the analysis of level relationships', *Journal of Applied Econometrics*, Vol 16, No 3, pp 289-326.

Song, H. and Li, G. (2008), 'Tourism demand modelling and forecasting–A review of recent research', *Tourism Management*, Vol 29, No 2, pp 203-220.

Song, H., Kim, J.H. and Yang, S. (20100, 'Confidence intervals for tourism demand elasticity', *Annals of Tourism Research*, Vol 37, No 2, pp 377-396.

Song, H., Witt, F.S. and Li, G. (2009), *The Advanced Econometrics of Tourism Demand*. New York: Routledge.

Stock, J.H. and Watson, M.W. (1993), 'A simple estimator of cointegrating vectors in higher order integrated systems', *Econometrica*, Vol 61, No 4, pp 783-820.

The Effect of Thailand's Political Crisis on Destination Image and International Tourist Experience[*][f]

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The main objective of this article is to study the effects of six different stages derived from two shocks on the structure of causal relationships between Thailand's destination image and the international tourists' perceived value, satisfaction, and destination loyalty. These situations are: the period before the Suvarnabhumi international airport closure, during airport closure, one month after the airports closure, 2-3 months after the airports closure, the Songkran crisis, and one month after the Songkran crisis.

Past studies have shown that destination image affects perceived value, satisfaction, and destination loyalty. Also, perceived value is considered to affect tourist satisfaction and destination loyalty. In addition, tourists' overall satisfaction is affected by attributes' satisfaction, and the former affects destination loyalty.

The data used in this study were obtained from interviews of international tourists visiting Thailand from the 1st of October of 2008 to the May 18, 2009. A sample of 4,754 international tourists at Suvarnnabhumi Airport (Bangkok) and Chiang Mai Airport were interviewed. A Structural Equation Model (SEM) is used to analyze the data. The model includes 19 observable variables, 1 exogenous latent variable (destination image), and 4 endogenous latent variables (attribute satisfaction, perceived value, total satisfaction and destination loyalty).

The results of the study show that the negative effect of the unexpected events on destination image is in fact higher for those tourist coming during the post crisis period than for those affected by the events. Most of the hypothesis regarding the causal relations among the destination image, perceived value, attribute satisfaction, overall satisfaction and destination loyalty were confirmed. The main exception is that overall satisfaction during the unexpected events is mainly determined by the actual experiences happing during the crisis more than by the tourists' previous destination image. The changes in the destination image of Thai tourism lead to changes in the magnitude of the effect that destination image has on tourists' overall satisfaction and their destination loyalty towards Thailand.

The paper proves that these recent political crises only have short-term impacts on Thailand's destination image, hence not enough to generate changes in the overall behavioural structure

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of international tourists. Therefore, in the short run, there is no need to quickly improve the destination image of Thai tourism, especially on the tourist attractions. But, the focus should be concentrated on improving tourists' confidence in safety and on restoring the social atmosphere of "Thainess" as fast as possible, because these two aspects are the most important components of the destination image of Thai tourism. Besides this, the results of the study suggest that improving destination image during the crisis does help to increase tourists' attributes satisfaction more than the increase in their overall satisfaction and their destination loyalty.

References

Chen, C-F. and Chen, F-S. (2010), 'Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists', *Tourism Management*, Vol 31, No 1, pp 29-35.

Chen, C-F. and Tsai, D. (2007), 'How destination image and evaluative factors affect behavioral intentions?', *Tourism Management*, Vol 28, No 4, pp 1115-1122.

Chi, C.G-Q. and Qu, H. (2008) 'Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach', *Tourism Management*, Vol 29, No 4, pp 624-636.

Chon, K-S. (1990), 'The role of destination image in tourism: A review and discussion', *Tourism Review*, Vol 45, No 2, pp 2-9.

Cronin, J.J., Brady, M.K. and Hult, G.T.M. (2000), 'Assessing the effects of quality, value and customer satisfaction on consumer behavioral intentions in service environments', *Journal of Retailing*, Vol 76, No 2, pp 193-218.

Kozak, M. and Rimmington, M. (2000), 'Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination', *Journal of Travel Research*, Vol 38, No 3, pp 260-269.

Oh, H. (2000), 'Diners' perceptions of quality, value and satisfaction: A Practical Viewpoint', *Cornell Hotel and Restaurant Administration Quarterly*, Vol 41, No 3, pp 58-66.

Oliver, R.L. (1993), 'Cognitive, affective, and attribute bases of the satisfaction response', *Journal of Consumer Research*, Vol 20, No 3, pp 418-430.

Ozturk, A.B. and Qu, H. (2008), 'The impact of destination images on tourists' perceived value, expectations, and loyalty', *Journal of Quality Assurance in Hospitality and Tourism*, Vol 9, No 4, pp 275-297.

Petrick, J.F. and Backman, S.J. (2002),. 'An examination of golf travelers' satisfaction, perceived value, loyalty and intentions to revisit', *Tourism Analysis*, Vol 6, No 3-4, pp. 223-237.

Yoon, Y. and Uysal, M. (2005), 'An examination of the effects of motivation and satisfaction on destination loyalty: A structural model', *Tourism Management*, Vol 26, No 1, pp 45-56.

Tourist Attitudes Towards an Accommodation Tax Earmarked for Environmental Protection: A Survey in the Algarve

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Tourist taxes have become increasingly popular worldwide in addressing environmental problems associated with tourism. This paper studies tourist attitudes towards an accommodation tax earmarked for environmental protection in the Algarve, the most important Portuguese tourism destination. A Chi-squared Automatic Interaction Detecting Algorithm (CHAID) is used to segment tourists according to their willingness to pay. This method allowed us to divide respondents into six segments. The dominant one, labelled as "typical sun and beach tourists", shows a low willingness to pay for the earmarked accommodation tax. In contrast, the receptivity to this measure is above average in three segments, termed according to their main characteristics as "environmental steward tourists", "nature oriented tourists" and "frugal tourists".

An Economic Analysis of the 2007 SCB Conference

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The Society for Conservation Biology (SCB) held their 21st annual conference in Port Elizabeth, South Africa, during July 2007. This was the first SCB conference hosted on the African continent. Over 1500 conservation professionals and students from throughout the world were brought together by the SCB annual meeting. The local organizing committee was interested in the economic impacts associated with the conference - this research is the result.

The economic impact of conferences stems from two sources, namely: expenditure by delegates (the demand-side) and the expenditure by conference organizers (the supply-side). The study focused on the economic impacts of the conference for the Eastern Cape region. The conference expenditure produced an increase in demand in the Eastern Cape.

An increase in the demand for one industry's output will create additional demand for the outputs of its supplying industries, because industries are connected through forward and backward linkages. These inter-industry linkages produce a multiplier effect. The initial direct conference expenditure created secondary impacts. The latter were indirect and induced expenditures. In addition to secondary impacts, the SCB conference produced spill-over impacts. The spill-over impacts of the conference were noted (but not quantified).

The expenditure by delegates was determined by means of a delegate expenditure questionnaire conducted during the conference. The expenditure by the conference organizers was determined in consultation with the organizers, using their financial statements.

The composition of goods and services purchased by organizers and delegates will influence the development potential of a conference. A 'basket' containing mostly locally produced/sourced goods and services will create a much more significant impact than a 'basket' containing mostly 'externally' sourced goods and services. Conferences are a more effective tool, when the majority of expenditures are on domestically produced/sourced goods and services. Conferences attracting a largely foreign delegate population are more likely to produce a large amount of new expenditure, i.e. originating from outside the host region.

The multiplier impacts were estimated by means of an input-output (IO) analysis, using a Social Accounting Matrix (SAM) of the Eastern Cape as the underlying database. The three multiplier measures used were: the addition to gross output, Gross Value Added (GVA) and household income. These multipliers (Type 1 and 2 multipliers) were estimated using open and closed multiplier models. It was deduced that the 2007 SCB conference created a significant and positive net economic impact in the Eastern Cape. The total direct cash injection of the conference was R12.141 million. Using a Type 1 multiplier this direct stimulus is estimated to have caused an extra R16.502 million increase in gross output.

Using a Type 2 multiplier this direct stimulus was estimated to have caused a R19.884 million increase in gross output. The total cash injection of the conference contributed R6.093 million to GVA in terms of a Type 1 multiplier and a R7.344 million increase in

GVA in terms of a Type 2 multiplier. Household incomes in the Eastern Cape were increased by R3.384 million.

These results confirm that the hosting of major events and conferences is indeed a tool for promoting regional economic development.

A Comparison of Economic Impact Analyses – Which One Works Best?

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Events are under pressure to indicate the economic contribution that they make. This information is also used by sponsors and government agencies to justify their involvement in events. The dilemma facing tourism economists is which approach is most effective, since most methodologies have advantages and disadvantages. Added to this, the type and size of an event also play a fundamental role. Therefore, the purpose of this paper is to provide an overview and comparison of competing and supplementing methodologies for modelling the regional economic dynamics and impacts of events. The discussion provides a primer on how regional Computable General Equilibrium (CGE), Input-Output and Social Accounting Matrix (SAM) based (multiplier) models work towards capturing the region-specific, interregional and multiregional production, consumption and factor market patterns resulting from expenditure due to the presence of events. An analysis of virtues and limitations of these alternate methodologies suggests that it may be the considerations such as the data collection/compilation, expected output, research objectives and costs involved that may determine the choice of modelling framework. Data from two surveys (a visitor and business survey) conducted at the Aardklop National Arts Festival during 2010 were used in the analyses, which were executed by means of several regional models constructed for South Africa's North West Province. Results from these analyses will be compared in order to give researchers and practitioners a better insight and clarity into which approach works best for an arts festival.

The Management System of Common Pool Resources in Tourist Destinations: A Case of Coral Reefs Management

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This paper studies the suitability of management systems for coral reefs. Coral reefs are natural tourism resources but tourism operators and/or tourists tend to overuse them leading to their deterioration in many tourism destinations. Coral reefs can be considered as common pool resources (CPRs) due to their intrinsic attributes such as 'free-access use (non-excludability)' and 'competitive use (rivalry)' (Ostrom 1990). A number of measures have been implemented to reduce such overuse including regulations, such as zoning, seasonal utilization, restrictions on the number of users or on tourists' activity, and economic incentives through taxation regimes or financial subsidies. From a supply-side management perspective, controls on tourism operators, including restrictions on the number of tourism operators and their boundaries of tourism activities, are particularly effective in avoiding overuse of CPRs. In order to assess these measures in managing CPRs for their sustainability, this paper gives the theoretical analysis in a framework of competitive use of CPRs and examines the situation of entry- and usage-related regulations in tourist destinations where their major tourism resources are coral reefs. The analysis developed indicates the effectiveness of these regulations while empirical research on such management systems will allow us to investigate how they are managed and utilized in different ways from the site to site.

The composition of the paper is as follows: after an introduction, Section 2 gives a brief overview of the present condition of coral reefs and their use in various tourism destinations. The paper also investigates governance systems with respect to coral reefs as tourism resources. Section 3 gives a theoretical analysis of coral reefs as a CPR, where tourism businesses enter and use the reef in order to pursue profits in the tourism market. Section 3 assesses the effectiveness of procedures to regulate CPR use, in particular, controls on the number of users from a game-theoretic perspective. Following this theoretical analysis of CPR governance systems, Section 4 provides comparative empirical data of tourism management systems for coral reef usage. In particular, the paper investigates governance systems to control the number of, and operations by, tourism operators in and around the coral reefs. The theoretical and practical findings regarding CPR use and management systems are compared, and effective policy measures to make CPR use sustainable are identified. Finally, Section 5 provides the conclusions and areas for further research.

Bangkok Residents' Social Representations of the Economic Impact of Tourism Development in Thailand[f]

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This paper uses social representations theory (SRT) and social exchange theory (SET) to examine social representation of Thailand's tourism development and related social impacts as perceived by respondents through qualitative methods in Bangkok, Thailand. For the study, forty in-depth interviews were conducted with respondents who were both involved and uninvolved in the tourism industry. The two main issues considered were, firstly, the determination of the concepts used to perceive tourism development and its social impact on the Thai people and, secondly, how social exchanges affected these perceptions. The data revealed the major social representation of those involved in tourism was that it 'generates national income,' representing a positive economic impact. The primary view of respondents involved in the tourism-industry management was that national revenue as a whole benefits the whole country. They supported their views with statistical information. The second social representation regarding the economic impact was job creation. This representation was discussed by four of the twenty in the tourism-involved group and five of the twenty in the non-tourism-involved group. Respondents representing the above views included those in middle-management and low-skilled tourism-involved groups, as well as those in the middle-management non-tourism-involved group.

Comparing the social representations between residents who are involved and not involved in the tourism industry reveals that personal benefits from tourism play a significant role in those respondents who are highly involved in tourism. It can be said that high socio-economic status respondents who are not involved in tourism tended to be more concerned by negative cultural and environmental impact. They also expressed both negative and positive economic impacts, in contrast to respondents who are in upper management positions in tourism.

This finding confirms the proposition by Gursoy and Rutherford (2004) that benefits and cost perceptions of impact are not mutually exclusive. A change in perceptions of one type of impact is likely to influence the perceptions of other types. If residents perceive one impact factor as more important than others, it is likely that the perception of that impact factor will influence the perceptions of other impact factors. For example, if one has a very strong perception of economic benefits, this is likely to influence perceptions of social and cultural impact. It is concluded that benefit exchange plays a role for respondents who gain benefits from tourism and consequently avoid negative opinions, while respondents not involved in tourism and for whom benefits do not play an important role, comments are more negative. However, there were some non-tourism-involved respondents who expressed positive opinions regarding tourism impacts even though they did not gain benefits from tourism.

Overall, respondents who are involved and not involved on tourism had more positive opinions regarding economic impact. They had only a few concerns regarding society becoming more consumerism orientated. The most prominent economic benefit was

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[f]Full paper available on memory stick.

considered to be generating national revenue, followed by improving local standards of living and generating job opportunities.

Reference

Gursoy, D. & Rutherford, D.G. (2004). Host attitudes toward tourism An Improved Structural Model. *Annals of Tourism Research, 31*(3), 495-516.

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