The Recent Boom in Spain: Economic Sustainability of Destinations

3 authors:

Andrés Artal-Tur
Universidad Politécnica de Cartagena

88 PUBLICATIONS   **238** CITATIONS

SEE PROFILE

Doaa M. Salman Abdou
Modern Sciences and Arts University

65 PUBLICATIONS   **121** CITATIONS

SEE PROFILE

Yasser Tawfik Halim
Modern Sciences and Arts University

13 PUBLICATIONS   **15** CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:

ERF Conference View project

http://www.inderscience.com/info/ingeneral/forthcoming.php?jcode=ijge View project

Chapter 4
The Recent Boom in Spain: Economic Sustainability of Destinations

1
2
3

Andrés Artal-Tur, Doaa Salman, and Yasser Tawfik

4

Abstract Since the beginning of the Arab Spring movements and instability in the
North of Africa, a relevant share of international tourists have changed their plans,
relocating their holiday time from southern to northern shores of the Mediterranean.
In this context, Spain has been one of the most benefited countries, making the years
2015, 2016 and 2017 historical records for international arrivals with more than
70 million tourists. However, times of exuberance could bring important imbalances
for the future. The present chapter seeks to analyse the impact of the booming
process occurring in Spanish tourism destinations, with a focus on the side of
economic sustainability. In particular, we address two main issues: First, and relying
on survey data of international tourists in Spain for years 2010–2015, we analyse the
changes taking place in the profile of tourists arriving to four leading destinations
in the country (Catalonia, Madrid, Canary islands and Balearic Islands). Second,
we run expenditure functions for these destinations to estimate the main factors
explaining spending decisions of tourists. Combination of these two analyses help
us to get deeper understanding of the changes occurring in international tourism
arriving to Spain in this period, and how these could be affecting the economic
sustainability of destinations in the near future.

5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

1 Introduction

22

A number of important socio-political events have been occurring in the Mediterra-
nean region in recent years. Those include the Spring revolution movements started
December 2010 in Tunisia and January 2011 in Egypt, the Syrian war, the terrorist
attacks in Egypt, Tunisia, France, and Turkey, or the Libyan question (Galal and
Reiffers 2014). The impact on the tourism industry has been remarkable, resulting in

23
24
25
26
27

A. Artal-Tur (✉) · D. Salman
Technical University of Cartagena, Murcia, Spain
e-mail: Andres.artal@upct.es

Y. Tawfik
October University for Modern Sciences and Arts, Cairo, Egypt

important drops in visitors to the south shore of the Mediterranean, mainly in Tunisia and Egypt (Al Battat and Som 2014). In contrast, in the north shore, international arrivals have remarkable grown (Cirer-Costa 2017). In this context, the Mediterranean region still represents the most visited destination in the world, making up 19% of global tourist arrivals, and attracting additional 52 million international tourists in years 2010–2015 (UNWTO 2016). Inside the region, Spain shows a leading position as a safe and competitive destination. The very same year of 2011 when Arab Spring started, particular Spanish destinations, i.e. the Canary Islands, were receiving a disproportionate number of tourists. Exceltur, one of the leading entrepreneurial associations in the tourism industry of Spain, estimates in 12 million the number of relocated tourists in Spain since the beginning of the Arab Spring (footnote 2; Cirer-Costa 2017).[1] The competitiveness position shown by the country, reaching the top of the world ranking in the Travel and Tourism Competitiveness Index in 2015, 2016 and 2017 (TTCI 2017) is reflected in the capacity of attracting international visitors, that were growing by 5 million annually since 2013, reaching historical records of 75 million in 2016 (FRONTUR 2016).

However, times of exuberance could bring important imbalances for the future (Ortega and Peñalosa 2012). In this context, the present chapter seeks to analyse the impact of the booming process occurring in Spain with a focus on economic sustainability. In particular, we are interested in addressing two main issues: First, and relying on survey data of international tourists in Spain for 2010–2015, we will analyse the changes taking place in the profile of tourists arriving to four main country destinations. Second, we will run expenditure functions for these destinations in order to identify the main factors explaining spending decisions of tourists. The matching of these two broad measures will shed more light on the changes occurring in growth of international tourism and related revenues taking place in Spain in this period. Main focus will be on how these trends could be affecting the economic sustainability of the tourism industry in the country for the near future, and related socio-cultural sustainability issues emerging from the analysis.

2 Sustainability in Tourism Studies

Sustainability in tourism has become an important topic. An accepted definition of sustainable tourism refers to the tourism that takes full account of the current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities (UNWTO 2005). The triple bottom line has been established as the paradigm of analysis in the study of tourism sustainability, recognising the complex nature of the concept and including its economic, socio–cultural and environmental dimensions (Stoddard et al. 2012).

---

[1]See http://www.hosteltur.com/118538_15-millones-turistas-prestados-llegaron-espana-verano.html and http://www.exceltur.org/wp-content/uploads/2015/04/ABR.15.008.pdf

Given the remarkable extension of tourism activities around the world, the impact of tourism is more than evident nowadays (Almeida et al. 2015). However, the economic benefits of tourism continue to be the central objective of stakeholders at destinations (Bojanic and Lo 2016). Even international institutions as The World Tourism Organization and The World Travel and Tourism Council usually focus on economic measures as arrivals and revenues when measuring the performance of the tourism industry on their annual reports (see. i.e. UNWTO 2016). The capacity of tourism to create income, jobs, attract new investments and increase well-being of local population leads to a growing interest of countries in joining these activities. Resilience of tourism in times of crisis also explains the global scope acquired by the tourism industry (Garau-Vadell et al. 2016).

The use of indicators is a commonplace when measuring the sustainability of destinations. With the extension of this methodology, a number of indicators have been settled out when defining the three pillars of tourism sustainability. The original contribution of Choi and Sirakaya (2006) focused on indicators for community tourism. A panel of experts provided input to conform a set of sustainable indicators relying on communities' characteristics, including experts from the academy and stakeholder groups, including the resident community, industry experts, government planners, policy-makers and non-governmental organizations. As this study states, sustainable development for community tourism should aim at improving the residents' quality of life by optimizing local economic benefits, protecting the natural and built environment and providing a high quality experience for visitors. Another study of Torres-Delgado and López-Palomeque (2014) develops a system of indicators based on literature search, and verified and validated by Delphi method. The process was adapted to the tourism industry, allowing for the identification and quantification of tourism impacts.

Two types of indicators arise in the literature for the analysis of tourism sustainability, namely simple and complex/synthetic indicators (Sánchez-Rivero and Pulido-Fernández 2008). Indicators of the first type are based on primary statistics, while complex indicators combine a number of simple indicators using a weighting system that reflect their relative importance. Simple indicators are useful for detecting specific impacts while complex ones facilitate integrated understanding, though interpreting derived results use to be more complicated and subjective (Carrillo and Jorge 2017). There is another possibility by relying on a system of indicators, a structured set of simple indicators the results of which are interpreted jointly. Although sets of indicators and indices are often seen as serving different purposes, they can also complement each other so that general tendencies can be identified.

New approaches to tourism sustainability incorporate the perspective of stakeholders in defining the relevance of each indicator in the system, according to their perception of tourism impacts at destinations. Lee and Hsieh (2016) provide a system of indicators from the perspective of the visitor, resident, NGOs, business sector, and governmental level. The authors define indicators for the economic, social, cultural and environmental dimensions of sustainability, employing information provided by stakeholders and contextual information. This approach recognises the central role of local stakeholders as key actors in designing and implementing

110 sustainable strategic planning (Boley et al. 2017; Franzoni 2015). Discrepancies
111 arising among stakeholders and complexity of tourism planning at destinations are
112 also acknowledged by the *stakeholders' approach* (Lyon et al. 2017).

113 Another important contribution in the analysis of tourism sustainability is the one
114 recognising that different visitors present different impacts on destinations. Some
115 authors investigate how different tourist profiles and trip characteristics could lead to
116 diverging impacts. Age of the tourist, income level, days of visit, type of accommo-
117 dation chosen, company while travelling, type of activities developed, ethnicity and
118 origin country, level of education, or gender constitute attributes of the visitor
119 explored when studying the impact of tourists behaviour at destinations (Boley
120 et al. 2017). The type of specialisation and tourism products offered at the destina-
121 tion is also explored to better understand how places can manage sustainability
122 issues in a long-run scenario (Stoeckl et al. 2006).

123 In sum, as Choi and Sirakaya (2006, p. 1276) point out, "First, there is no doubt
124 that sustainable tourism must be economically feasible, because tourism is an
125 economic activity. Economic sustainability, in this regard, implies optimizing the
126 development growth rate at a manageable level with full consideration of the limits of
127 the destination environment. Moreover, the economic benefits from tourism should
128 be fairly well distributed throughout the community. Second, environmental sustain-
129 ability recognizes that natural resources of the community and the world should be no
130 longer viewed as abundant and are, in fact, constantly being depleted. The natural
131 environment must be protected for its own intrinsic value and as a resource for present
132 and future generations. Third, socio-cultural sustainability implies respect for social
133 identity and social capital, for community culture and its assets, and for a strength-
134 ening of social cohesiveness and pride that will allow community residents to control
135 their own lives". In general, we have seen that nowadays sustainability is recognised
136 as a necessary attribute that destinations should invest in, becoming a key piece in
137 ensuring that the extension of tourism results into increases of the quality of life of
138 local population (Mathew and Sreejesh 2017).

139 In this chapter we will focus on the economic side when measuring sustainability
140 of destinations, this being the outstanding dimension of the recent boom in interna-
141 tional tourism in Spain (BALANTUR 2016; Cirer-Costa 2017). However, we will
142 add measures on socio-cultural and environmental dimensions in Spain when data is
143 available. Table 4.1 includes a selected summary of indicators for tourism sustain-
144 ability. After a review of the literature, we compile the most frequent indicators
145 employed to proxy the economic, socio-cultural and environmental pillars of sus-
146 tainability. The economic dimension of sustainability use to be measured through
147 quantitative indicators such as tourist expenditure, arrivals, investment, infrastruc-
148 tures, employment, tourism facilities created at the destination level, diversification
149 of demand (age, origin, tastes), effects on prices and living cost, job quality or tax
150 revenue levels. More qualitative economic indicators include measures of seasonal-
151 ity of demand, tourist satisfaction levels, type of accommodation employed, job
152 insecurity and quality of jobs, opportunities of professional development, or the
153 general benefit of tourism activities on the local economy. Regarding the socio-
154 cultural level of sustainability of tourism, our list includes indicators on shares of

t1.1   **Table 4.1** Selected indicators of tourism sustainability and related literature

	Economic sustainability					
t1.2	Expenditure of tourists	Torres-Delgado and López-Palomeque (2014)	Carrillo and Jorge (2017)		Mathew and Sreejesh (2017)	Franzoni (2015)
t1.3	Number of arrivals	Torres-Delgado and López-Palomeque (2014)	Boley et al. (2017)		Mathew and Sreejesh (2017)	Franzoni (2015)
t1.4	Presence of second-homes	Torres-Delgado and López-Palomeque (2014)				
t1.5	Investment in tourism sector	Torres-Delgado and López-Palomeque (2014)	Lee and Hsieh (2016)		Mathew and Sreejesh (2017)	
t1.6	Infrastructures	Torres-Delgado and López-Palomeque (2014)	Mathew and Sreejesh (2017)			
t1.7	Employment in tourism industry and related sectors	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Carrillo and Jorge (2017)	Mathew and Sreejesh (2017)	Boley et al. (2017)
t1.8	Opportunities of professional development	Garau-Vadell et al. (2016)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Mathew and Sreejesh (2017)	Franzoni (2015)
t1.9	Facilities and basic services	Torres-Delgado and López-Palomeque (2014)			Mathew and Sreejesh (2017)	
t1.10	Seasonality of demand	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Carrillo and Jorge (2017)	Lee and Hsieh (2016)	Franzoni (2015)
t1.11	Diversification of demand	Torres-Delgado and López-Palomeque (2014)	Mathew and Sreejesh (2017)			
t1.12	Tourist satisfaction	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Boley et al. (2017)	Franzoni (2015)
t1.13	Effects on prices and increased cost of living	Garau-Vadell et al. (2016)				
t1.14	Job insecurity and bad-quality jobs	Garau-Vadell et al. (2016)	Mathew and Sreejesh (2017)	Mathew and Sreejesh (2017)	Franzoni (2015)	

AU1

(continued)

t1.16 **Table 4.1** (continued)

	Category	Indicator					
t1.15		Rise of real estate prices and rentals	Garau-Vadell et al. (2016)			Franzoni (2015)	
t1.16		Accommodation offer	Torres-Delgado and López-Palomeque (2014)	Carrillo and Jorge (2017)	Carrillo and Jorge (2017)	Franzoni (2015)	
t1.17		Type of accommodation employed	Lee and Hsieh (2016)				
t1.18		Hotel occupancy ratio	Carrillo and Jorge (2017)				
t1.19		Increase in tax revenes	Garau-Vadell et al. (2016)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Mathew and Sreejesh (2017)	
t1.20		Tourism is beneficial for general development of the local economy	Garau-Vadell et al. (2016)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Mathew and Sreejesh (2017)	Franzoni (2015)
t1.21	Socio-cultural sustainability	Tourist and resident population—ratio of tourist to locals	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Carrillo and Jorge (2017)		
t1.22		Congestion and crowding issues	Torres-Delgado and López-Palomeque (2014)	Lee and Hsieh (2016)	Mathew and Sreejesh (2017)	Boley et al. (2017)	
t1.23		Diversification of tourist attractions	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Boley et al. (2017)	
t1.24		Origin of tourist demand	Torres-Delgado and López-Palomeque (2014)	Torres-Delgado and López-Palomeque (2014)			
t1.25		Support for tourism	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Mathew and Sreejesh (2017)	Franzoni (2015)
t1.26		Protected heritage and new cultural facilities	Torres-Delgado and López-Palomeque (2014)	Garau-Vadell et al. (2016)	Boley et al. (2017)		
t1.27		Reduction of general level of life quality	Garau-Vadell et al. (2016)	Lee and Hsieh (2016)	Boley et al. (2017)		
t1.28		Better knowledge and understanding of other cultures	Garau-Vadell et al. (2016)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)		
t1.29		Protection of local culture	Lee and Hsieh (2016)	Choi and Sirakaya (2006)	Boley et al. (2017)	Franzoni (2015)	
t1.30		Impact on community life and social cohesion	Mathew and Sreejesh (2017)	Choi and Sirakaya (2006)	Boley et al. (2017)	Franzoni (2015)	

|					
Environmental sustainability					
t1.31	Resource consumption: water, energy, recycling	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Mathew and Sreejesh (2017)	Boley et al. (2017)
t1.32	Impact on natural resources	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Mathew and Sreejesh (2017)	Franzoni (2015)
t1.33	Pollution: Air, noise, water	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Mathew and Sreejesh (2017)	Boley et al. (2017)
t1.34	Environmental practices in tourism planning	Torres-Delgado and López-Palomeque (2014)	Choi and Sirakaya (2006)	Lee and Hsieh (2016)	Mathew and Sreejesh (2017)	Boley et al. (2017)

local versus tourist population, congestion issues at some particular places or destinations, cultural benefits of tourism, including the increase in related facilities and cultural offer, mixing and interaction with foreign cultures and tourists, the protection of local culture. Negative indicators account for reduction of quality of life of residents, or the impact in community life and social cohesion. Environmental indicators include impact on natural resources, water, energy, and wastes optimization and recycling, pollution and adoption of a general sustainability focus in the tourism planning of destinations.

3   General Trends of International Tourists Arriving to Spain

In this section, we begin reviewing the main trends arising in the Spanish tourism industry for recent years of boom 2010–2015. In doing so, first we present the main changes taking place in the profile of international tourists visiting the country in this period. Then, in Sect. 4, we run an econometric model on factors explaining tourism expenditure in Spain in order to shed more light on the evolution of tourism economic sustainability in the Spanish market in recent years.

In this context, it is important to note that Spain continues to be a leading destination in the world tourism market. In 2016 the country received the visit of 75 million international tourists spending around 70,000 € millions, what keeps the country in the first places of the world tourism ranking according to World Tourism Organization (UNWTO 2016). Figure 4.1 shows the remarkable trend followed by inbound tourism in Spain. Departing from 52 million of arrivals in 2010, arrivals
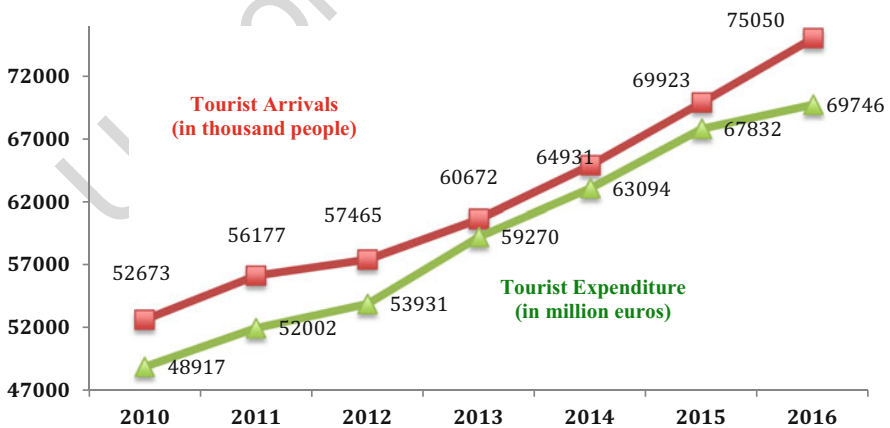
Fig. 4.1 International tourist arrivals and expenditure in Spain 2010–2016. Source: FRONTUR, INE, Spain

have grown 5.6% per year in the period 2010–2015. Receipts have even grown to a higher rate, around 6.5% annually.

Moreover, as a general trend, international and domestic tourism in Spain have followed diverging paths along these years. While international tourist arrivals grow remarkably since 2010, domestic travelers have been noting the impact of the crisis, not recovering positive rates until the end of 2013 or beginning of 2014. Amount spent by tourists also differs for seaside and urban destinations. Madrid experienced an important adjustment of the tourism industry along the years of economic crisis. Canary and Balearic Islands adjusted the supply side of the market to the new economic conditions too, but benefited majorly from the boom in international tourism demand. Catalonia has grown the most in the Spanish market, with new 4 million people since 2010, and historical 17 million visits in 2015 (INE-EOH various years; INE-EPA various years).

3.1   The Changing Profile of International Tourists Visiting Spain

This subsection builds on the information provided by a large survey data set for international tourists reaching Spain in years 2010 and 2015. Data comes from the Institute of Tourism Studies (IET) of the Ministry of Tourism of Spain. The data set includes information gathered by the IET at the moment of departure of international tourists. It comprises monthly data, and collects information for more than 100,000 tourists per year. The survey, named EGATUR (Tourism Expenditure Survey), is designed to provide data on expenditure of tourists, including detailed information on the profile of visitors, the type of activities pursued in vacations, and trip characteristics.[2] In this study we will focus on four main destinations of Spain, including the two Islands, Balearic and Canary Islands, and the two most advanced regions in the country, Catalonia and Madrid. The first group makes up the most visited single seaside, sun and sand, destinations in the country, with 11 million tourists per year and region in 2015 (9.2 million in Balearic Islands and 8.6 million in Canary Islands in 2010). The second group includes the two main cities in the country, Madrid, the capital, and Barcelona. Catalonia received 17 million of international tourists in 2015 (13.1 million in 2010), while Madrid made it for 5 million visitors (4.6 million in 2010). These four destinations represent around 65% of total inbound international tourism in Spain in 2015 (FRONTUR 2016).

Along this subsection, we are interested in understanding the changes occurring in the profile of visitors reaching the country between years 2010 and 2015 and their relation to sustainability issues. Year 2010 is the beginning of the booming tourist cycle in Spain, while 2015 is the last year with available information. The analysis of

---

[2]For details on questionnaire, please consult: http://estadisticas.tourspain.es/en-EN/estadisticas/egatur/metodologia/referencia%20metodolgica/Technical%20Sheet.pdf

214 data by origin country of visitors in Table 4.2 shows that European arrivals make the
215 bulk of international flows in Spain. Relative share of traditional tourists from EU
216 (European Union) include that of British (18%), German (16%), French (11%) and
217 Italian (8%) tourists. Although all these EU tourists have continued growing in these
218 years, rates of growth have been far below those of other new visitors which
219 increased from 7.1 million people in 2010 to 12.5 million in 2015, including those
220 from rest of Europe (24%), MENA countries (4.2%), and North America (3.8%)
221 (BALANTUR 2016).
222   Regarding changes identified on tourist profiles in Table 4.3, we see an increase
223 in the relative share of younger tourists of 25 to 44 years old, those with tertiary
224 studies, and with middle-income levels. Trip characteristics in Table 4.4 show the

Table 4.2 Tourist arrivals in Spain (in percentage of the total sample)

	4 regions	
Country of origin	2010	2015
France	11	11
Italy	9	8
UK	23	18
Germany	17	16
Rest_of_EU	17	15
North of Europe	5	9
Middle East countries	2	4
North America	2	3.5
Rest of the World	14	15.5
Total	100	100

Table 4.3 Tourist profiles

	4 regions	
	2010	2015
Age		
Age1524	10	10
Age2544	49	53
Age4564	32	30
Age_more65	9	7
Gender		
Female	44	43
Male	56	57
Level of studies		
Primary	4	3
Secondary	33	26
Tertiary	63	71
Income level		
High_income	31	34
Middle_income	61	62
Low_income	8	4

Table 4.4 Trip characteristics

	4 regions		
	2010	2015	t4.1 / t4.2
Trip purpose[a]			t4.3
Business	13	12	t4.4
Visiting friends & relatives (VFR)	10	15	t4.5
Food & gastronomy	28	39	t4.6
Cultural activities	52	65	t4.7
Sun & sand	49	48	t4.8
Leisure_other	13	14	t4.9
Company			t4.10
Alone	28	33	t4.11
Couple	40	43	t4.12
Family	13	14	t4.13
Friends	19	10	t4.14
Previous visits			t4.15
First_visit	19	21	t4.16
Visits_2–5	28	29	t4.17
Visits_6–10	17	16	t4.18
Visits_more than 10	36	34	t4.19
Nights of stay	7.5	7.8	t4.20
Accommodation			t4.21
5-star hotels	5	7	t4.22
Rent apartments	15	21	t4.23
Own house	5	4	t4.24
VFR house	17	22	t4.25

[a]Each tourist uses to pursue more than one single trip prupose   t4.26

increase of visitors travelling for leisure and engaging in food & gastronomy and   225
cultural activities or visiting friends and relatives. International tourists in Spain also   226
use to travel alone or in couple, with the former group gaining relative positions   227
along these years. We also observe an increase in first-time visitors, and average   228
length of stay has slightly increased up to 7.8 nights per visitor in this period. In   229
terms of accommodation, sample data shows the increasing role of rent apartments   230
and the use of houses of friends and relatives, while 5-star hotels are the only type of   231
hotels increasing their share in this period. Regarding the use of Internet in tourism,   232
this has been generalised for all type of purposes, including travel and accommoda-   233
tions booking, and for general information.   234

Changes in tourist behaviour in Table 4.5 shows an increase in very satisfied   235
visitors. Table 4.5 also shows that total expenditure at destination, net from travel   236
cost and in constant 2010 euros, increased from 904 to 1047 euros per average trip,   237
and daily average expenditure at destination moves from 121 to 134 euros in these   238
years. Regarding data on seasonality of visits, summer and springtime continue to   239
be the preferred months for international tourists in Spain, but autumn season have   240
been scaling positions. Canary Islands shows lower seasonality issues, given the   241

		4 regions	
t5.1 **Table 4.5** Some tourist behaviour		2010	2015
t5.3	Overall level of satisfaction of tourists		
t5.4	Very_satisfied_9	28	28
t5.5	Very_satisfied_10	18	21
t5.6	Very_satisfied_9 & 10	46	49
t5.7	Trip expenditure (in 2010 euros)		
t5.8	Total per trip	904	1047
t5.9	Daily	120	134
t5.10	Travel fee	157	171
t5.11	Season of the visit		
t5.12	Winter	25	20
t5.13	Spring	33	27
t5.14	Summertime	25	31
t5.15	Fall	17	19
t5.16	Use of internet		
t5.17	For travel tickets	57	68
t5.18	For accommodation	36	52

subtropical climate characterising this destination. Balearic Islands clearly show the seasonal pattern of a seaside Mediterranean destination. Catalonia accumulates the bulk of the visits from January to May given the dominant urban nature of the destination, as well as Madrid, the capital of the country.

4 Estimating the Dynamics of Tourist Expenditure in Spain

After studying the changing profile of international tourists, in this section we focus on the analysis of the economic sustainability at destination by trying to identify how the notable increase in inbound tourism flows in Spain has been affecting the spending pattern of tourists at selected destinations. In first place we will run expenditure equations in order to identify what changes occurring in the Spanish market would be helping to increase the economic sustainability of destinations. Additionally, we will add other group of variables in the analysis directly related to the economic sustainability of destinations, such as the seasonality of demand, the pattern of accommodation, or the level of income of visitors (Torres-Delgado and López-Palomeque 2014). A few references to socio-cultural and environmental sustainability dimensions would be also included in the investigation, as they can enrich the analysis (Cucculelli and Goffi 2015). In sum, the present chapter would address the following testable hypothesis: General Hypothesis of the research: "Changes in the expenditure pattern of tourists are increasing the economic sustainability of destinations in Spain along the booming process of 2010–2015". This general hypothesis would be tested according to three sub-hypotheses:

H1: Changes in the profile of international tourists increase the economic sustain- 263
ability of destinations. 264
H2: Changes in the trip characteristics of international tourists increase the economic 265
sustainability of destinations. 266
H3: Determinants of tourist expenditure differ among Spanish destinations. 267

4.1 Modelling Tourist Expenditure 268

An important literature exists analysing the determinants of tourism expenditure at a 269
micro-level. Researchers use to model total trip tourism expenditure (per person, per 270
group or per day) employing a number of independent variables. Recent review 271
studies include those of Wang and Davidson (2010), Marcussen (2011) and Sainaghi 272
(2012). Brida and Scuderi (2013) also provide an extensive review of the methods 273
and results in the tourist expenditure literature. Main findings show that models use 274
to include data on tourist socio-demographic characteristics and trip-related features 275
of the holiday stay, plus other control variables capturing destination characteristics. 276
In this chapter, the modelling strategy includes estimating expenditure equations 277
to identify the role of key covariates driving expenditure at Spanish destinations, and 278
potential changes arising between years 2010 and 2015. The dependent variable is 279
the daily expenditure computed as the total expenditure at destination over the length 280
of stay for each tourist in the sample. We rule out travel cost in order to make results 281
more comparable between short and long distance tourists reaching Spain. This type 282
of dependent variable shows both non-negative and non-integer values. In dealing 283
with these features of the data distribution, we will employ a Poisson Pseudo- 284
Maximum-Likelihood (PPML) estimation method. Following Santos-Silva and 285
Tenreyro (2006) this type of estimators avoid typical bias of OLS traditional 286
estimators in the presence of heteroskedasticity for log-linearised models, also 287
providing consistent estimates, and increasing efficiency regarding OLS and NLS 288
estimators. PPML estimators show robustness to measurement errors in the depen- 289
dent variable too. In particular the expenditure equation would take the form of: 290

$$y_i = \exp(x_i\beta) + \varepsilon_i,$$
$$\text{with } y_i \geq 0 \text{ and } E[\varepsilon_i|x] = 0$$

using STATA 14 software for estimations. 291
Regarding the explanatory variables of the expenditure model we include: 292

Profile of the Tourist 293
Origin of the tourist: accounting for geographical areas such as the European Union 294
(EU), North of Europe, Middle East and North America. Some detail is included 295
for traditional visitors of Spain, such as German, French, Italian and British 296
tourists. 297
Company of the tourist while in vacations: alone, in couple, with family, or friends. 298

Age of the tourist: 15–24 years old, 25–44 years, 45–65 years, and more than 65 years old.

Gender: male or female.

Studies: primary, secondary and tertiary level of studies.

Income level: high-income (more than 80,000 euros per year), middle income (between 80,000 and 18,000 euros per year) and low income (less than 18,000 euros per year).

Trip characteristics

Purpose of the visit: including leisure, business, personal (visiting friends and relatives-VFR), sun and sand, and first-time visitors.

Activities pursued in vacations: sport events, gastronomy (food-related activities), culture.

Accommodation type: hotel 5 stars, hotel 4-3 stars, rent apartment, own house (second-home).

Season of the visit: all four seasons of the year.

Overall trip satisfaction: in a likert scale 0–10, with 10 being the highest level of trip satisfaction.

Use of the Internet: for travel tickets, for booking accommodation services.

Region of the visit: including Canary Islands, Balearic Islands, Catalonia and Madrid.

All data comes from the survey EGATUR of IET, Spain. Results are presented for years 2010 and 2015. The defined category of reference in the sample, in order to avoid perfect collinearity, is "a tourist coming from the Rest of the World, with the couple, of about 45–65 years old, male, with tertiary level of studies, low income level, coming for leisure, to a hotel of 4-3 stars, in the summertime season, with low to mid level of trip satisfaction (0–8 likert scale)", and visiting the Canary Islands in the joint-destinations equation. Table 4.6 includes results of the expenditure model for the joint four regions in Spain. As we can see, the joint model is quite significant with R-squared value between 0.44 and 0.39 depending on the year of estimation. Individual significance of the covariates in the model is also higher than 99% as seen. Results for 2010 show that the most important covariates explaining levels of daily expenditure per international visitor are those of the origin of the tourist, purpose of the visit, income level, and accommodation type (Table 4.6 and Fig. 4.2). In general, tourists significantly increasing expenditure per day are those coming from new and distant destinations, such as North America (USA, Canada, Mexico), and Middle East countries (Saudi Arabia, Qatar, UAE). Category of reference in this covariate is that of the "Rest of the World", so negative coefficients would be pointing to countries of origin that relatively reduce this daily spending. In particular this is the situation of traditional EU visitors, as French, British, German and Italian ones, while tourists from north of Europe and rest of the Europe would be showing higher levels of expenditure regarding traditional EU visitors. Results for 2015 show that along the boom process of international tourism in Spain, Middle East and Italian tourists decreased expenditure per day considerably, while British visitors slightly increased it.

Continuing with results of Table 4.6, other variable leading expenditure of tourists is that of the purpose of the visit. Business tourists spend much more on average than

Table 4.6 Expenditure model for joint 4 destinations in Spain 2010–2015

Category of reference:	Variable:	4 regions 2010		4 regions 2015	
		coeff.	p-value	coeff.	p-value
Tourist profile — Origin of the tourist: (Rest of the World)	France	−0.2100	0.000	−0.2297	0.000
	Italy	−0.1786	0.000	−0.2669	0.000
	UK	−0.2562	0.000	−0.1967	0.000
	Germany	−0.2087	0.000	−0.1905	0.000
	Rest_of_EU	−0.1377	0.000	−0.1637	0.000
	North_Europe	−0.0241	0.124	−0.0311	0.001
	Middle East	0.4720	0.000	0.1546	0.000
	North America	0.1335	0.000	0.1527	0.000
Company: (couple)	Alone	0.2129	0.000	0.2339	0.000
	Family	−0.1860	0.000	−0.1840	0.000
	Friends	0.1626	0.000	0.1512	0.000
Age: (45–65 years old)	Age1524	−0.1702	0.000	−0.1713	0.000
	Age2544	−0.0355	0.000	−0.0039	0.487
	Age_more65	−0.1772	0.000	−0.1995	0.000
Gender (male)	Female	−0.0422	0.000	−0.0665	0.000
Studies: (tertiary educ)	Primary	−0.2170	0.000	−0.1710	0.000
	Secondary	−0.0743	0.000	−0.0668	0.000
Income level: (low-income)	High_income	0.2017	0.000	0.2795	0.000
	Middle_income	0.1568	0.000	0.1004	0.000
Trip characteristics — Purpose of the visit (leisure)	Business	0.4211	0.000	0.3319	0.000
	VFR	−0.4320	0.000	−0.3511	0.000
	Sun & sand	−0.3417	0.000	−0.2530	0.000
	First_visit	0.0413	0.000	0.0665	0.000

(continued)

t6.28 **Table 4.6** (continued)

	Category of reference:	Variable:	4 regions 2010		4 regions 2015	
			coeff.	p-value	coeff.	p-value
t6.27	Activities:	Sports	0.1066	0.000	0.0669	0.000
t6.28		Food&gastronomy	0.0256	0.008	0.1357	0.000
t6.29		Cultural_activities	0.1009	0.000	0.0702	0.000
t6.30	Accommodation type: (hotel 4–3 stars)	Hotel_5 stars	0.3383	0.000	0.3211	0.000
t6.31		Rent_aptm	−0.0124	0.221	0.0654	0.000
t6.32		Own_house	−0.3237	0.000	−0.2728	0.000
t6.33	Season of visit: (SUMMER time)	WINTER_TIME	0.0181	0.031	−0.0250	0.000
t6.34		SPRING_TIME	−0.0154	0.058	−0.0174	0.006
t6.35		FALL_TIME	−0.0276	0.002	−0.0083	0.225
t6.36	Overall trip satisfaction: (Mid and low satisfied)	Very_satisfied	0.1073	0.000	0.0821	0.000
t6.37 Regional fixed effects	Use of the internet:	Internet for travel tickets	−0.1264	0.000	−0.2019	0.000
t6.38		Internet for booking accomodation	0.1253	0.000	0.1978	0.000
t6.39	Region of the visit: (Canary Islands)	Catalonia	0.1309	0.000	0.1124	0.000
t6.40		Madrid	0.0832	0.000	0.1033	0.000
t6.41		Balearic Islands	0.0642	0.000	0.0565	0.000
t6.42		Constant	5.2362	0.000	5.1803	0.000
t6.43		N	54,920		69,852	
t6.44		R-Squared	0.4486		0.3942	
t6.45		Log-likelihood	−1,516,186		−1,737,317	
t6.46		AIC	3,032,448		3,474,710	
t6.47		BIC	3,032,787		3,475,058	

t6.48 Note: All regressions with robust standard errors. VIF test show no multicollinearity problems
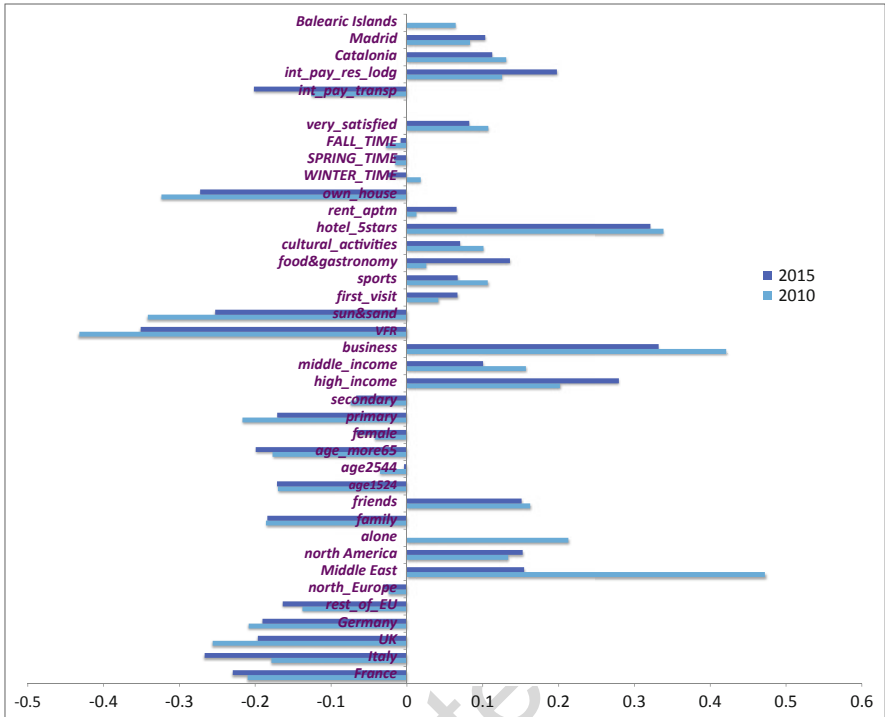
Fig. 4.2 Expenditure model for joint 4 destinations in Spain 2010–2015

leisure ones, which acts as the category of reference, while tourists visiting friends   343
and relatives and pursuing sun-and-sand activities spend so much less, as shown in   344
Fig. 4.2. By accommodation type, visitors in 5 star hotels spend much more per day,   345
while those in second-homes spend so much less. High and middle income visitors   346
spend so much more than low income ones, as well as people traveling alone or with   347
friends in comparison with those coming with family or in couple. Tertiary educated   348
visitors, and middle-aged (45–65 years old) are another higher spending group, as   349
well as visitors engaged in culture, sports, food & gastronomy and coming for the first   350
time to the destination. All three destinations show positive effects on expenditure in   351
comparison with reference category of the Canary Islands.   352

In general, between 2010 and 2015, Table 4.6 shows that daily spending has   353
increased more significantly for British and North American tourists, those with high   354
levels of income, visiting friends and relatives, in sun-and-sand activities, first-   355
visitors, with food & gastronomy activities, accommodated at 5-star hotels, coming   356
in fall time and using the internet for booking accommodation. Decreases in relative   357
expenditure between years 2010–2015 appear for visitors from Middle East, coming   358
for business trips, and using the Internet for buying travel tickets.   359

When we move to results at the level of destinations in Table 4.7 we can see   360
differences between single destinations in terms of coefficients in the model. In   361
Canary Islands we see much higher impact on expenditure levels of high income and   362

Table 4.7 Expenditure model for single destinations in Spain 2010–2015

Category of reference:	Variable:	Canary Islands				Balearic Islands			
		2010		2015		2010		2015	
		coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value
Origin of the tourist: (Rest of the World)	France	−0.0553	0.132	−0.0940	0.000	−0.0972	0.003	−0.1113	0.000
	Italy	−0.1504	0.000	−0.1798	0.000	−0.1581	0.000	−0.1871	0.000
	United Kingdom	−0.2171	0.000	−0.1583	0.000	−0.1436	0.000	−0.0893	0.000
	Germany	−0.1670	0.000	−0.1529	0.000	−0.0863	0.000	−0.1161	0.000
	Rest of EU	−0.0982	0.000	−0.0652	0.000	−0.0323	0.000	−0.0165	0.000
	North of Europe	−0.0133	0.000	0.0127	0.000	0.0161	0.000	0.1120	0.000
	Middle East	−0.3822	0.000	−0.1557	0.000	−0.1821	0.000	0.1135	0.000
	North America	−0.1122	0.000	0.1183	0.000	0.0763	0.000	0.1231	0.000
Company: (couple)	Alone	0.1427	0.000	0.1815	0.000	0.1811	0.000	0.2359	0.000
	Family	−0.1319	0.000	−0.1235	0.000	−0.1787	0.000	−0.1768	0.000
	Friends	0.1026	0.000	0.1278	0.000	0.1475	0.000	0.1966	0.000
Age: (45–65 years old)	Age_1524 years old	−0.0740	0.000	−0.0733	0.000	−0.0912	0.000	−0.1084	0.000
	Age_2544	0.0057	0.535	0.0116	0.178	−0.0046	0.741	0.0126	0.236
	Age_more than 65 years old	−0.0841	0.000	−0.1474	0.000	−0.1177	0.000	−0.1629	0.000
Gender (male)	Female	−0.0223	0.000	−0.0584	0.000	−0.0284	0.000	−0.0516	0.000
Studies: (tertiary educ)	Primary	0.0007	0.976	−0.0525	0.003	−0.0176	0.629	−0.0489	0.011
	Secondary	−0.0083	0.365	−0.0256	0.003	−0.0068	0.577	−0.0116	0.268
Income level: (low-income)	High_income	0.2012	0.000	0.2191	0.000	0.3466	0.000	0.2948	0.000
	Middle income	0.0784	0.000	0.0872	0.000	0.0918	0.000	0.0721	0.000
Purpose of the visit (leisure)	Business	0.3886	0.000	0.2376	0.000	0.4334	0.000	0.2460	0.000
	Visit to VFR	−0.3339	0.000	−0.2176	0.000	−0.3813	0.000	−0.2765	0.000
	Sun & sand	−0.1816	0.000	−0.1373	0.000	−0.1105	0.000	−0.0802	0.000
	First visit	0.0217	0.067	0.0898	0.000	0.0452	0.003	0.0276	0.043

(Tourist profile; Trip characteristics)

t7.28	Activities:	Sport events	0.1361	0.010	0.0827	0.148	0.0301	0.618	−0.0994	0.056
t7.29		Food & gastronomy	0.1267	0.000	0.1685	0.000	0.1212	0.000	0.1030	0.001
t7.30		Culture	0.0464	0.000	0.0114	0.135	0.0690	0.000	0.0206	0.032
t7.31	Accommodation type: (hotel 4-3 stars)	Hotel_5 stars	0.2019	0.000	0.2346	0.000	0.1264	0.000	0.1762	0.000
t7.32		Rent_apartment	−0.0265	0.037	0.0274	0.052	−0.0797	0.015	−0.0508	0.021
t7.33		Own_house	−0.1826	0.000	−0.2778	0.000	−0.1789	0.000	−0.1683	0.000
t7.34	Season of visit: (SUMMER time)	WINTER time	0.0399	0.000	−0.0250	0.023	−0.05293	0.018	−0.0715	0.000
t7.35		SPRING time	−0.0019	0.860	−0.0101	0.387	−0.0844	0.000	−0.0753	0.000
t7.36		FALL time	0.0021	0.843	−0.0331	0.003	−0.0633	0.002	−0.0686	0.000
t7.37	Overall Trip Satisfaction: (Mid and low satisfied)	Very_Satisfied	0.0829	0.000	0.0938	0.000	0.1291	0.000	0.1419	0.000
t7.38	Use of the Internet:	Internet for travel tickets	−0.1206	0.000	−0.2108	0.000	−0.1322	0.000	−0.0826	0.000
t7.39		Internet for booking accommod.	0.1158	0.000	0.1987	0.000	0.1025	0.000	0.0635	0.000
t7.40		Constant	4.7999	0.000	4.8931	0.000	4,981,481	0.000	4,914,084	0.000
t7.41		N	17,838		18,594		12,410		16,132	
t7.42		R-Squared	0.2407		0.2888		0.3239		0.2516	
t7.43		Log-Likelihood	−242,966		−283,282		−264,092		−314,164	
t7.44		AIC	486,041		566,680		528,294		628,446	
t7.45		BIC	486,461		567,134		528,703		628,900	

(continued)

t7.46 **Table 4.7** (continued)

	Category of reference:	Variable:	Catalonia				Madrid			
			2010		2015		2010		2015	
			coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value
t7.50 Tourist profile	Origin of the tourist: (Rest of the World)	France	−0.2211	0.000	−0.1241	0.000	−0.0818	0.002	−0.1080	0.000
t7.51		Italy	−0.1673	0.000	−0.2383	0.000	−0.1840	0.000	−0.2392	0.000
t7.52		United Kingdom	−0.1536	0.000	−0.1298	0.000	−0.2903	0.000	−0.1304	0.000
t7.53		Germany	−0.1486	0.000	−0.1838	0.000	−0.1493	0.000	−0.0361	0.079
t7.54		Rest of EU	−0.0786	0.000	−0.1763	0.000	−0.1419	0.000	−0.1126	0.000
t7.55		North of Europe	0.1328	0.000	0.0956	0.000	0.1137	0.000	0.1284	0.000
t7.56		Middle East	0.1241	0.000	0.1721	0.000	0.1902	0.000	0.1371	0.000
t7.57		North America	0.1208	0.000	0.2130	0.000	0.0892	0.000	0.1229	0.000
t7.58	Company: (couple)	Alone	0.2839	0.000	0.2439	0.000	0.2026	0.000	0.2076	0.000
t7.59		Family	−0.1605	0.000	−0.1466	0.000	−0.1164	0.001	−0.1125	0.000
t7.60		Friends	0.1037	0.000	0.0963	0.000	0.1310	0.000	0.1148	0.000
t7.61	Age: (45–65 years old)	Age_1524 years old	−0.1048	0.000	−0.1757	0.000	−0.2527	0.000	−0.2740	0.000
t7.62		Age_2544	−0.0041	0.782	−0.0062	0.588	−0.0423	0.002	−0.0417	0.001
t7.63		Age_more than 65 years old	−0.2054	0.000	−0.2127	0.000	−0.2046	0.000	−0.1555	0.001
t7.64	Gender (male)	Female	−0.0724	0.000	−0.0319	0.000	−0.0149	0.000	−0.0291	0.013
t7.65	Studies: (tertiary educ)	Primary	−0.2203	0.000	−0.2774	0.000	−0.3581	0.004	−0.2687	0.030
t7.66		Secondary	−0.0852	0.000	−0.1380	0.000	−0.0986	0.000	0.0239	0.093
t7.67	Income level: (low-income)	High_income	0.1251	0.000	0.2640	0.000	0.1394	0.000	0.1967	0.000
t7.68		Middle income	0.0759	0.000	0.1116	0.000	0.1351	0.000	0.05074	0.005

Trip characteristics	Purpose of the visit (leisure)	Business	0.3565	0.000	0.3277	0.000	0.2955	0.000	0.2032	0.000
		Visit to VFR	−0.2327	0.000	−0.1890	0.000	−0.1269	0.000	−0.1281	0.000
		Sun & sand	−0.2000	0.000	−0.2671	0.000	0.1060	0.016	−0.1000	0.028
		First visit	0.0156	0.342	0.0674	0.000	−0.0008	0.959	−0.0360	0.006
	Activities:	Sport events	0.1242	0.000	0.0891	0.000	0.0469	0.126	0.0905	0.000
		Food & gastronomy	0.0351	0.116	0.0449	0.033	0.0201	0.039	0.1254	0.000
		Culture	0.1581	0.000	0.1349	0.000	0.2118	0.000	0.0898	0.000
	Accommodation type: (hotel 4-3 stars)	Hotel_5 stars	0.3051	0.000	0.2331	0.000	0.2520	0.000	0.2697	0.000
		Rent apartment	−0.0795	0.014	−0.0708	0.012	−0.1538	0.005	−0.1131	0.001
		Own_house	−0.2390	0.000	−0.2653	0.000	−0.0185	0.781	0.0868	0.042
	Season of visit: (SUMMER time)	WINTER time	0.1565	0.000	0.0451	0.000	−0.0456	0.006	−0.0514	0.000
		SPRING time	0.0901	0.000	0.0176	0.158	−0.0168	0.345	−0.0236	0.080
		FALL time	0.0635	0.004	0.0262	0.061	−0.0323	0.058	−0.0072	0.617
	Overall Trip Satisfaction: (Mid and low satisfied)	Very_Satisfied	0.1591	0.000	0.1292	0.000	0.0821	0.000	0.0723	0.000
	Use of the Internet:	Internet for travel tickets	−0.0456	0.056	−0.0150	0.482	−0.1042	0.000	−0.0964	0.000
		Internet for booking accommod.	0.1218	0.000	0.1567	0.000	0.0305	0.148	0.1209	0.000
		Constant	4,778,382	0.000	4,879,094	0.000	5,080,621	0.000	4,863,847	0.000
		N	13,494		21,879		11,178		13,406	
		R-Squared	0.4112		0.4081		0.5165		0.5479	
		Log-Likelihood	−448,275		−631,207		−394,733		−340,461	
		AIC	896,662		1,262,535		789,584		681,043	
		BIC	897,083		1,263,015		790,016		681,493	

Note: All regressions with robust standard errors. VIF test show no multicollinearity problems

business visitors, as well as for sports events, food & gastronomy tourists, and visitors in 5 star hotels. By the contrary, coefficients are shown to be more negative for VFR and second-home tourists in this destination. In the case of Balearic Islands, particular values of the coefficients arise for first visitors, sport and food-related activities and visitors in 5 star hotels. Catalonia shows positive values for people traveling alone, with tertiary studies, high income level, coming for culture and accommodated in 5 star hotels, while negative values for sun-and-sand tourists. Finally, Madrid outstands because of middle income and cultural tourists in positive terms, and younger and older aged visitors and those with primary level of studies in negative terms.

Regarding changes appearing in 2015 in comparison with results of 2010, Canary Islands show that factors increasing expenditure are those of company while on vacations, income, purpose of the visit, and accommodation type. For Balearic Islands, we see the prominence of variables related to the company (alone, friends), age (older visitors), income level, purpose of the visit (business vs VFR), and accommodation (5 star hotels, and own house). In 2015 Catalonia shows higher estimated values for coefficients of variables related to high income tourists, French visitors, and the decrease of values for Italian, younger tourists (15–24 years old) and people not coming in the summertime. Madrid also shows an increase in values of coefficients for British and German tourists, older aged, with high-income levels, for sports and food & gastronomy activities, and coming to their second-home residence.

5 Results

Table 4.8 summarises the main findings of the expenditure equations and related effects on sustainability issues. Results show a number of trends emerging for international tourism in Spain since the beginning of the boom period. In first place, new source countries have been appearing in the Spanish market, leading to a reduction in the economic dependence on traditional markets and pushing up spendings, implying a positive impact on the economic sustainability of Spanish destinations (Torres-Delgado and López-Palomeque 2014).

Increases in the number of visitors traveling alone and with tertiary level of studies present two main implications. First, from the business side it accounts for new segments of demand, both being higher spenders at urban destinations. Second, and given the particularities of highly educated people, it can result in rising levels of socio-cultural sustainability for destinations (Artal-Tur and Villena-Navarro 2016). The growth of mid income visitors should improve the economic sustainability of destinations too, given the positive relationship between income and spending (Thrane and Farstad 2011).

By types of accommodation chosen by tourists, trends show an increase in visits to houses of friends and relatives VFR in times of crisis. Rent apartments have been growing in relevance as a new type of accommodation, given the on-line resources and sharing economy emerging in recent years. In this way, both types of accommodation

t8.1 **Table 4.8** Summarising the effects of expenditure estimates on tourism sustainability for Spanish destinations 2010–2015

			Factors leading tourist expenditure					Effects on sustainability	
			4 regions Spain	Canary Islands	Balearic Islands	Catalonia	Madrid	Economic	Socio-cultural
Tourist profile	Origin of the tourist:	European traditional visitors	–	–	–	– –	– –	–	+
		North of Europe	+	+	+	++	++	+	+
		Middle East	++	– –	+	+	+	+	+
		North America	+	+	+	+	+	+	+
	Company:	Alone	+	+	+	++	+	+	
		Family	–	–	–	–	–	–	
		Friends	+	+	++	+	+	–	
	Age:	Younger tourists (15–24 years)	– –	–	–	– –	– –	–	+
		25–44 years old	+	+	+	–	–	+	
		Older tourists (+65 years old)	– –	–	–	– –	– – –	+	
	Studies:	Tertiary studies	++	+	+	++	++	+	+
	Income level:	High income	+	++	++	+	+	+	
Trip characteristics	Purpose of the visit	Business trips	++	+	+	+	+	+	
		VFR	– –	– –	– –	– –	–	–	
		Sun & sand	–	–	–	– –	–	–	
		First visit	+	+	+	+	–	+	
	Activities:	Sport events	+	+	+	+	+	+	+
		Food & gastronomy	+	++	+	+	++	+	+
		Cultural activities	+	+	+	++	++	+	+
	Accommodation type:	5 star hotel	++	++	+	++	++	+	
		Rent apartment	+	–	–	–	–	–	
		Second-home (own house)	– –	–	–	– –	– –	–	

(continued)

t8.27 **Table 4.8** (continued)

		Factors leading tourist expenditure					Effects on sustainability	
		4 regions Spain	Canary Islands	Balearic Islands	Catalonia	Madrid	Economic	Socio-cultural
Season of visit:	Summer seasonality	+	+	+	+	+	+	+
	Winter-spring seasonality	–	–	–	+	–	–	+
Overall Trip Satisfaction:	Very satisfied tourist (9–10 likert scale)	+	+	++	++	+	+	+
Use of the internet:	Use of Internet for travel tickets	–	– –	–	–	–	–	+
	Use of Internet for booking accommodation	+	++	+	++	++	+	+

t8.31 Note: + (–) sign means this factor contributes to increase (decrease) the level of tourism expenditure at destination, or the sustainability of tourism at destination

would result in lower levels of expenditure at destination in comparison with tourists in hotels, reducing the economic sustainability of the destination (Marrocu et al. 2015). However, tourists in 5-star hotels have been growing in Balearic Islands, leading to an opposite result. For purpose of the visit, sun and sand tourists reduce average expenditure, while first visitors and business tourists increase it. As first visitors increased their share in Spain in these years they contribute positively to economic sustainability of the country, while sun and sand reduced it. Food & gastronomy and cultural activities clearly favour an increasing level of expenditure. Visitors engaged in these two activities substantially increased in 2010–2015, clearly contributing to raise the level of economic sustainability.

Seasonality still remains important at Spanish Mediterranean destinations for the spring and summertime, while urban destinations show lower frequency of visits along the winter months. Both issues open new avenues for tourism planning for the high and the low seasons of the year, always in line with a sustainable focus. Tourists declaring the highest level of satisfaction have also increased at Spanish destinations, with an effect on growing tourism income, and pushing economic sustainability (Lee and Hsieh 2016; Torres-Delgado and López-Palomeque 2014). Cultural activities have become the preferred ones by tourists in their leisure time at Spanish destinations, this being a European trend too. Culture, nightlife, food & gastronomy and sports also represent growing activities in Spain, fostering expenditures and economic sustainability for the future. All these facts bring the attention towards the importance of culture for the future of European and Spanish destinations. It results in new investments in cultural infrastructures and events with positive effects for the residents themselves, also bringing increasing levels of cultural and social sustainability for destinations (Artal-Tur and Villena-Navarro 2016).

The use of the Internet in preparing the trip would be increasing expenditure for the accommodation choice, but decreasing in the travel tickets case. In general, the positioning of destinations on the Internet and Social Networks help to increase the competitiveness of destinations, as shown by the TTCI Report (TTCI 2017). Moreover, the use of new technologies could also help to improve satisfaction and expenditure of tourists at destinations. In this way, despite tourists could be saving part of the budget in some vacational items when booking by the internet, i.e. in lodging and travelling tickets, they can employ this extra-budget in making higher spendings in other concepts while on holidays, as shown by literature (Eugenio-Martin and Inchausti-Sintes 2016).

The idiosyncrasy of the four Spanish destinations is shown in Table 4.8 too. Seaside destinations, Canary and Balearic Islands, show higher values of coefficients for factors such as those of high income tourists, food & gastronomy visitors, people coming with friends, and very satisfied tourists, while factors negatively affecting expenditure here are those of VFR and sun and sand visitors. More urban destination like Madrid and Catalonia show particular positive values of coefficients for visitors from the North of Europe, coming alone, with tertiary studies, for food-related and other cultural activities, and very satisfied tourists, who use to employ the Internet for booking accommodations.

448 In general terms, changes taking place in the profile and behaviour of interna-
449 tional tourists arriving to Spain along the boom years 2010–2015 let us know a
450 general increase in economic sustainability from the perspective of expenditure at
451 destinations. Most of the covariates in the model show positive contributions to
452 economic sustainability in Table 4.8, with new types of tourists reaching the country
453 helping to increase expenditure per day. Negative contributions and reduction of
454 economic sustainability at destination is shown for traditional pattern of tourism in
455 Spain, such as EU visitors coming with the family for sun and sand activities at
456 summertime season. Moreover, some trends have pointed to other related effects
457 positively affecting socio-cultural sustainability of destinations. These include new
458 visitors from other countries leading to an enrichment of the local society and
459 growing interactions with local culture (2016). The presence of younger tourists,
460 with high level of education, engaged in cultural and sport activities, highly satisfied
461 with holidays and increasingly using new technologies to search for tourist services
462 at destination also increase the level of social sustainability of Spanish destinations
463 in these years according to literature findings.

464 In sum, we can see that hypotheses H1 to H3 cannot be rejected by empirical
465 findings, with some specific profiles of tourists clearly driving expenditure levels up
466 and increasing economic sustainability at Spanish destinations (H1). The same result
467 arises for particular trip characteristics of tourists (H2). Moreover, as stated in H3,
468 determinants of tourist expenditure appear to vary among Spanish destinations,
469 although sharing common trends too. As a result, we cannot reject the general
470 hypothesis of the model, stating that "changes in the expenditure pattern of tourists
471 led to an increase in the economic sustainability of destinations in Spain along the
472 boom of international tourism in years 2010–2015".

473 Finally, Table 4.9 shows a more general overview on changes of sustainability
474 indicators. According to official statistics,[3] economic sustainability has been improv-
475 ing in Spain in years 2010–2015 in general. Expenditure grew 6% annually these
476 years while arrivals did it at 5% (FRONTUR 2016). Employment in the tourism
477 industry grew from 2.07 million to 2.45 million, with main employment creation
478 concentrated in the hospitality and food & beverage industry (INE-EPA various
479 years). Opportunities of professional development also increased with international
480 tourism. Tourist satisfaction, accommodation offer, and tax revenues has grown in
481 Spain because of the boom of tourism (EGATUR various years). Demand diversi-
482 fication raised with new visitors from extra-EU countries, as well as tourism
483 investments, infrastructures and facilities for tourism. Seasonality slightly decreased,
484 and accommodation offer reduce the plant of hotels from 14,838 in 2010 to 14,011 in
485 2015, with occupancy ratios increasing from 51% to 58% (INE-EOH various years).
486 Rent apartments is the segment of accommodation concentrating the highest growth,
487 with capacity raising for 35% in these years, including the informal offer linked to
488 new developments in the so-called sharing economy (Richards 2016). Negative

---

[3]This paragraph is based on official statistics from Spanish National Institute of Statistics (INE) and
Ministry of Tourism.

Table 4.9 Summarising the effects on tourism sustainability for Spanish destinations in years 2010–2015   t9.1

Economic factors	Expenditure of tourists	+	t9.2
	Number of arrivals	+	t9.3
	Presence of second-homes	+	t9.4
	Investment in tourism sector	+	t9.5
	Infrastructures	+	t9.6
	Employment in tourism industry and related sectors	+	t9.7
	Opportunities of professional development	+	t9.8
	Facilities and basic services	+	t9.9
	Seasonality of demand	+	t9.10
	Diversification of demand	+	t9.11
	Tourist satisfaction	+	t9.12
	Effects on prices and increased cost of living	−	t9.13
	Job insecurity and bad-quality jobs		t9.14
	Rise of real estate prices and rentals	−	t9.15
	Accommodation offer	−	t9.16
	Type of accommodation employed	−	t9.17
	Hotel occupancy ratio	+	t9.18
	Increase in tax revenes	+	t9.19
	Tourism is beneficial for general development of the local economy	+	t9.20
Socio-cultural factors	Tourist and resident population—ratio of tourist to locals	−	t9.21
	Congestion and crowding issues	−	t9.22
	Diversification of tourist attractions	+	t9.23
	Origin of tourist demand	+	t9.24
	Support for tourism	+	t9.25
	Protected heritage and new cultural facilities		t9.26
	Reduction of general level of life quality		t9.27
	Better knowledge and uderstanding of other cultures	+	t9.28
	Protection of local culture		t9.29
	Impact on community life and social cohesion		t9.30
Environmental factors	Resource consumption: water, energy, recycling	−	t9.31
	Impact on natural resources	−	t9.32
	Pollution: Air, noise, water	−	t9.33
	Environmental practices in tourism planning	+	t9.34

Note: + (−) sign means this factor has increases (decreased) along the boom in international tourism in Spain   t9.35

effects on economic sustainability concentrate in indicators such as the growth in 489
prices that raised 4.2% in these years, but still below CPI index for the whole 490
economy that raised 7% (INE, www.ine.es). Growth in real estate prices in the 491
tourism industry, for example the offer linked to "Airbnb-type" apartments, is 492
resulting in a huge impact on rental prices in urban centres as Barcelona for example, 493
leading to significant distortion in the house rental market (Valls et al. 2013). In 494
terms of socio-cultural sustainability, main effects of this boom period concentrate 495

on an increase in number of tourists at city centres, with non-desired congestion and crowding related effects (Richards 2016). Part of the local population linked to tourism business has been more eager to support tourism activities in the boom period (Garau-Vadell et al. 2016), but a growing negative impact on resident population is appearing, mainly in the Mediterranean coast of Spain, given the remarkable growth in international arrivals along these years (Almeida-García et al. 2016). In environmental terms, the impact of tourism has also grown, given the highest number of people visiting destinations, and the budget adjustment situation suffered by local administrations along the years of economic crisis. However, the analysis of the environmental dimension and related sustainability issues transcends the objective of the present chapter, which main aim has been to focus on expenditure issues and its relationship to economic sustainability.

6 Conclusion

The years 2010–2015 have resulted in the boom of international tourism in Spain, with additional 23 million people reaching the country, spending around new 20,000 million euros. Top ranking competitiveness position characterising the country, plus more than 12 million new trips relocated since the beginning of the Arab Spring resulted in historical record of visitors. In this chapter, we have started to investigate the impact of this process on the economic sustainability of destinations. In doing so, we have built on a large survey data set in order to capture how the characteristics of tourists have changed in these years, and what are the factors driving expenditure of tourists in the country.

Estimates of the expenditure model have led to some important results. In first place, the surge of new profiles of tourists help to increase spending at destinations. These include international visitors coming from non-traditional origin countries, people traveling alone, middle-aged tourists, with tertiary studies, and high level of income, all them pushing up tourism economic sustainability in Spain in this period. First visitors, people pursuing cultural and sport activities, and those with high levels of trip satisfaction, are three collectives increasing their presence and adding to the economic sustainability of destinations too. Other findings include the opportunities linked to the use of the Internet in preparing vacations, and people traveling in mid-season, mainly at wintertime. These new arrivals and tourist profiles also provide benefits to the socio-cultural sustainability of destinations as shown by literature. Main findings of the model in this regard include new visitors from north Europe, America and Middle East, helping to enrich the cultural diversity and interactions with foreign cultures of the resident population. The presence of young and highly educated visitors also improving social sustainability. The prominent role that culture and cultural offer is acquiring in Spain as a tourism product, leading to new facilities, events, exhibitions and investments also help to enrich the

cultural life.[4] The presence of highly satisfied tourists, and those employing Internet-based technologies for planning their trips, will lead to a number of business opportunities and on-line interaction with segments of tourists, improving the economic sustainability and management of destinations, while opening opportunities to the local population for interact and being engaged with international visitors. Regarding the environmental side, this dimension has not been addressed in the study because of the lack of data, although the boom in arrivals of these years claim for a careful planning of the environmental dimension for Spanish destinations.

On the other side, the study have raised notable challenges for the near future at Spanish destinations. One of the most important is the need to increase spending of traditional EU visitors, as they continue to represent around one half of the total international tourism demand reaching Spain annually. Further, overcrowding of arrivals in Catalonia in last years have resulted in important congestion problems in the city of Barcelona, clearly affecting the performance of the destination. The impact on residents has become important, in terms of congestion issues affecting life in certain neighbourhoods and leading to real estate price bubbles (Valls et al. 2013). Canary Islands have also shown some delay in the renovation of tourism supply and hospitality facilities, issues that the boom period has kept more or less hidden, and should be faced soon. Madrid has been embarked in the reconversion of the industry, given the sharp decline in business and domestic tourism taking place in the years of crisis. In this sense, culture has been emerging as one of the key attractions in the city. Balearic Islands continue with the renovation process of its mature seaside model, with good results for emerging quality products complementing the sun-and-sand offer, as those of rural-inland-quality-nature tourism and sports and gastronomy tourism as a way of dealing with seasonality issues.

Relevant opportunities emerge according to the findings of the study, showing specific profiles of visitors and trip-related characteristics in Spain that should be targeted in order to increase the level of expenditure at destinations and economic sustainability in general. All these issues require specific policies at tourism destinations, as well as important efforts in tourism marketing campaigns. Culture should become the cornerstone of European tourism in the near future. Creative tourism, local-tourists interactions, valuing of the local heritage, gastronomy, ancient folklore, art crafts street markets, etc., are all key pieces for renewing the tourism offer. Building on those issues would result in an enrichment of the social and cultural dimensions of destinations too, increasing the positive returns of tourism towards resident population, and their support for tourism development.

---

[4]Gastronomy activities have been also defined in literature as a representation of the tangible and intangible cultural heritage of a region or locality (Melgar 2013).

References

Al Battat, A. R. S., & Som, A. P. M. (2014). *Impacts of the Arab Spring on the tourism industry in Malaysia*. Available https://www.academia.edu/3849211/Impacts_of_the_Arab_Spring_on_the_tourism_Industry_in_Malaysia

Almeida, F., Balbuena, A., & Cortés, R. (2015). Residents' attitudes towards the impacts of tourism. *Tourism Management Perspectives, 13*(1), 33–40.

Almeida-García, F., Peláez-Fernández, M. A., Balbuena-Vázquez, A., & Cortés-Macías, R. (2016). Resident's perception of tourism development in Benalmádena (Málaga). *Tourism Management, 54*, 259–274.

Andereck, K. L., Valentine, K. M., Knopf, R. C., & Vogt, C. A. (2005). Residents' perceptions of community tourism impacts. *Annals of Tourism Research, 32*(4), 1056–1076.

Artal-Tur, A., & Villena-Navarro, M. (2016). *Turismo cultural y sostenibilidad del destino: el caso español* (Vol. 113, pp. 123–148). Revista CIDOB d'Afers Internationals.

BALANTUR. (2016). *Balance del Turismo. Resultados de la Actividad Turística en España* (Annual balance of the tourism industry). Madrid: IET (Institute of Tourism Studies), Ministry of Tourism.

Bojanic, D. C., & Lo, M. L. (2016). A comparison of the moderating effect of tourism reliance on the economic development for islands and other countries. *Tourism Management, 53*, 207–214.

Boley, B. B., McGehee, N. G., & Hammet, A. L. T. (2017). Importance-performance analysis (IPA) of sustainable tourism initiatives: The resident perspective. *Tourism Management, 58*, 66–77.

Brida, J. G., & Scuderi, R. (2013). Determinants of tourism expenditure: A review of microeconometric models. *Tourism Management Perspectives, 6*, 28–40.

Canavan, B. (2016). Tourism culture: Nexus, characteristics, context and sustainability. *Tourism Management, 53*, 229–243.

Carrillo, M., & Jorge, J. M. (2017). Multidimesional analysis of regional tourism sustainability in Spain. *Ecological Indicators, 140*, 89–98.

Choi, H. C., & Sirakaya, E. (2006). Sustainability indicators for managing community tourism. *Tourism Management, 27*, 1274–1289.

Cirer-Costa, J. C. (2017). Turbulence in Mediterranean tourism. *Tourism Management Perspectives, 22*, 27–33.

Cucculelli, M., & Goffi, G. (2015). Does sustainability enhance tourism destination competitiveness?. Evidence from Italian destinations of excellence. *Journal of Cleaner Production, 111* (part B), 370–382.

EGATUR (various years). *Encuesta de Gasto Turístico* (Tourist Expenditure Survey). Madrid: IET (Institute of Tourism Studies), Ministry of Tourism.

Eugenio-Martin, J. L., & Inchausti-Sintes, F. (2016). Low-cost travel and tourism expenditures. *Annals of Tourism Research, 57*, 140–159.

Franzoni, S. (2015). Measuring the sustainability performance of the tourism sector. *Tourism Management Perspectives, 16*, 22–27.

FRONTUR. (2016). *Encuesta de Movimientos Turísticos en Fronteras*. Madrid: Instituto Nacional de Estadística (INE).

Galal, A., & Reiffers, J. L. (coords.) (2014). *Vers une nouvelle dynamique pour le maintien des équilibres economiques et sociaux*. Rapport du FEMISE sur le partenariat Euro-Mediterraneen. Available http://www.femise.org/category/publications/rapport_euromed/

Garau-Vadell, J., Gutierrez-Taño, D., & Díaz-Armas, R. (2016). Economic crisis and residents' perception of the impacts of tourism in mass tourism destinations. *Journal of Destination Marketing and Management., 7*, 68–75. https://doi.org/10.1016/j.jdmm.2016.08.008.

INE-EOH (various years). *Encuesta de Ocupación Hotelera* (Hotel Occupancy Survey). Madrid: Instituto Nacional de Estadística (INE). Available. http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft11%2Fe162eoh2F&file=inebase&L=0

INE-EPA (various years). *Encuesta de Población Activa* (Labour Force Survey). Madrid: Instituto Nacional de Estadística (INE). Available. http://www.ine.es/dyngs/INEbase/es/operacion.htm?

c=Estadistica_C&cid=1254736176918&menu=resultados&secc=1254736195129& idp=1254735976595

Lee, T. H., & Hsieh, H. P. (2016). Indicators of sustainable tourism: A case study from Taiwan's wetland. *Ecological Indicators, 67*, 779–787.

Lyon, A., Hunter-Jones, P., & Warnaby, G. (2017). Are we any closer to sustainable development?. Listening to active stakeholder discourses of tourism development in the Waterberg Biosphere Reserve, South Africa. *Tourism Management, 61*, 234–247.

Marcussen, C. H. (2011). Determinants of tourist spending in cross-sectional studies and at Danish destinations. *Tourism Economics, 17*, 833–855.

Marrocu, E., Paci, R., & Zara, A. (2015). Micro-economic determinants of tourist expenditure: A quantile regression *approach*. *Tourism Management, 50*, 13–30.

Mathew, P. V., & Sreejesh, S. (2017). Impact of responsible tourism on destination sustainability and quality of life of community in tourism destinations. *Journal of Hospitality and Tourism Management, 31*, 83–89.

Melgar, S. (2013). La gastronomía en el sistema turístico. Buscando nuevos productos, mejorando destinos. El caso de la isla de Fuerteventura. *PASOS Revista de Turismo y Patrimonio Cultural, 11*(2), 483–494.

Ortega, E., & Peñalosa, J. (2012). The Spanish economic crisis: Key factors and growth challenges in the Euroarea. In *Occasional Papers 1201*. Madrid: Bank of Spain.

Richards, G. (2016). El turismo y la ciudad: ¿hacia nuevos modelos?. (Tourism and the city: towards new models?). *Revista CIDOB d'Afers Internacionals, 113*, 71–87.

Sainaghi, R. (2012). Tourist expenditures: The state of the art. *Anatolia, 23*, 217–233.

Sánchez-Rivero, M., & Pulido-Fernández, J. I. (2008). *Medida de la sostenibilidad turística. Propuesta de un índice sintético*. Tribuna Fitur Jorge Vila Fradera. FITUR Prize in Tourism Research 2008. Madrid: Editorial Universitaria Ramón Areces.

Santos-Silva, J. M. C., & Tenreyro, S. (2006). The log of gravity. *The Review of Economics and Statistics, 88*(4), 641–658.

Spindel, C. (2011). The people want to topple the regime: Exploring the Arab Spring in Egypt, Syria, and Jordan. *SAGE Open, 1*, 1–7.

Stoddard, J. E., Pollard, C. E., & Evans, M. R. (2012). The triple bottom line: A framework for sustainable tourism development. *International Journal of Hospitality & Tourism Administration, 13*(3), 233–258.

Stoeckl, N., Greiner, R., & Mayocchi, C. (2006). The community impacts of different types of visitors: An empirical investigation of tourism in North-West Queensland. *Tourism Management, 27*, 97–112.

Thrane, C., & Farstad, E. (2011). Domestic tourism expenditures: The non-linear effects of length of stay and travel party size. *Tourism Management, 32*(1), 46–52.

Torres-Delgado, A., & López-Palomeque, F. (2014). Measuring sustainable tourism at the municipal level. *Annals of Tourism Research, 49*, 122–137.

TTCI. (2017). *Travel and tourism competitiveness index 2017*. Davos: World Economic Forum.

UNWTO. (2005). Making tourism more sustainable: A guide for policy makers. In *United Nations environment programme*. Madrid: World Tourism Organization.

UNWTO. (2016). *UNWTO tourism highlights 2016 edition*. Madrid: World Tourism Organization.

Valls, J. F., Banchini, S., Falcón, L., & Valls-Tuñón, G. (2013). Repositioning of Barcelona's image in the light of a redefinition of the urban tourism planning model. *PASOS Revista de Turismo y Patrimonio Cultural, 11*(1), 89–105.

Wang, D., & Davidson, M. C. G. (2010). A review of micro-analyses of tourist expenditure. *Current Issues in Tourism, 13*, 507–524.