Universitat de les Illes Balears

Title: **The Cyclical Evolution and Patterns of British and German Tourism to the Balearic Islands**

AUTHOR: Panthea Jame

Master's Thesis

Master's degree in: *Tourism and The Environmental Economic*

at the

UNIVERSITAT DE LES ILLES BALEARS

Academic year *2017-2018*

Date : 07/09/2018

UIB Master's Thesis Supervisor: Jaume Rossello

UIB Master's Thesis Co-Supervisor (if required) _____

Abstract

The aim of this study is to examine cyclical evolution and patterns of tourist arrivals to Balearic Islands from two main destinations: the UK and Germany. This paper has examined the data of British and German tourists for the past 36 years (1980-2016) to measure tourism demand cycle. To effectively evaluate Tourism demand cycle, it has been divided into two components: monthly growth of tourist and tourist fundamental trend. Time-series method has been employed to measure the growth and turning points in the tourism demand cycle. The results showed an upsurge in the overall tourist arrivals from both UK and Germany; however, considerable fluctuation can be witnessed in the case of the UK, while the tourists flow from Germany increased smoothly. The results also highlighted that in 2016, tourism from Germany and the UK was at its peak with 31.3 % increase in German arrivals and up to 83.1 from the UK. The results presented in this study can be quite valuable for the different stakeholders in the Balearic tourism sector such as hotel and resort owners, tourists, travel agents, transportation companies and government policy and decision makers.

1. Introduction

Tourism is the sector par excellence of Spain and can be considered as the engine of the economy. The arrival of tourists to Spain continues to grow in the recent times. At the national level, Spain expects to exceed 23 million international tourists in the second quarter of the year 2018, with an estimated associated expenditure of 23,500 million euros. If this trend continues, it would mean an increase of around 2.2 percent in the arrival of visitors from abroad compared to the second quarter of the previous year - April, May and June - well below the increase of 12.5 percent registered in that period in 2017 and a rebound of 4.4 percent of associated spending compared to the 15.3 percent rise in the second quarter of last year (Perles-Ribes et al.).

In particular, the Balearic Islands are becoming one of the most Touristic destinations in Spain. By taking a look at the number of tourist arrivals in Balearic Islands, it can be considered as one of the most visited sun-and-sea destinations in Europe (Garin-Munoz & Montero-Martín). The tourism sector governs the main economic activity of the islands and accounts for 85 percent of the GDP (Giráldez et al.). The major tourist makers in the Balearic Islands comprise of German and British accounting for more than 30% of international visitor arrivals. Obviously, this denotes that a there is a growing up number of British and German tourists, which has an important influence on economic growth of the Balearic Islands.

According to data published by the INE and IBESTAT in 2015 the weight of GDP tourism from Spain, who had been growing considerably in the last 4 years, stood at 44.8% of the island's economy and 10% the impact of tourism on the economy in Spain. In 2016 it received 12.9 million foreign tourists, up 12% respect the previous year. Also during July 2017 Balearic Islands breaks its record high of tourists in high season. In addition, the outlook for 2018 season is very favourable and ensures this growth trend. These data invite more research on tourism

demand in the Balearic Islands and their behaviour over time. The demand for tourism services in the first months of 2018 shows a "much more moderate" growth than that experienced during 2016 and 2017, years in which high rates of the main indicators of tourism activity were reached (cited in Plumed et al.).

Figure 1 represents that, the majority of tourists, namely 55% are from British or German origin arrivals while the share of foreign countries is 45%. In 2014, annual tourist arrivals in Balearic Island were more than 13 million (UN-WTO).

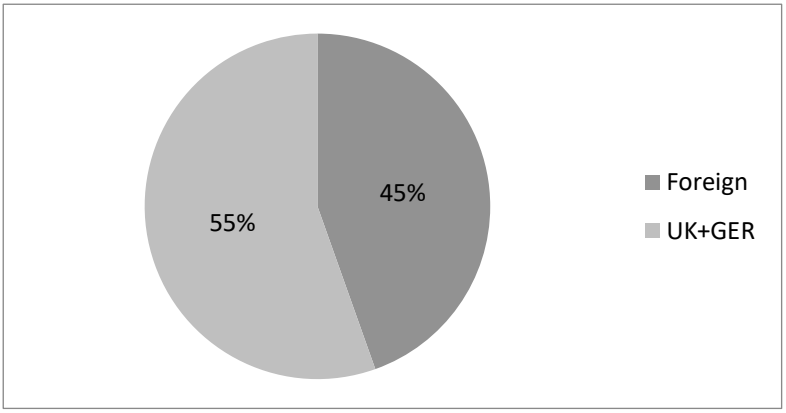

Figure 1: Share of British and German tourist arrivals to Balearic Islands

Keeping in view the huge share of British and German tourists in Balearic Islands' tourism sector, it is vital to understand cyclical evolution and patterns of tourist arrivals to the Islands. For this purpose, this study has examined the data of British and German tourists for the past 36 years (1980-2016) to measure tourism demand cycle. To effectively evaluate Tourism demand cycle, it has been divided into two components: monthly growth of tourist and tourist fundamental trend. Understanding and analysing cyclical patterns and tourism demand cycle can be beneficial for different stakeholders such as hotel and resort owners, tourists, travel agents, transportation companies and government policy and decision makers, in particular, and Balearic economy, in general.

The work is divided into two parts. The first part refers to the review of the literature, previous studies by dividing the quantitative and qualitative methods. After seeing this, a proper analysis of tourism demand is made by applying the time-series method, this being the second part.

2. Literature Review

The concept of demand is closely associated with the process of decision making that persons continually make in the process of planning of their leisure activities and, so, their determination relies on several factors not only financial, but also psychological, sociological, physical and ethical factors (Song & Li).

The tourist demand is described as the set of tourists that, individually or collectively, are driven by a range of tourism services or products with the purpose of covering their requirements (Li et al.). Economically, we describe it as the amount of "tourism product" that the tourists are eager to obtain on a specific price at an assumed time (Smeral).

According to Dogru et al., there are different factors that affect tourism demand such as economic conditions in the place of origin, prices at the place of destination and nominal exchange rates. Moreover, Dogru et al. mentioned that certain events in the relevant tourist destinations can threaten the safety of people; such as terrorist attacks or social unrest, prove to have a significant effect on the growing tourist demand.

Having knowledge about the effect of these factors may be key for companies directly or indirectly related to tourism. Because, when establishing their pricing strategies, learn to improve in those areas in which customers prove to be more sensitive. As per the research, tourists seem increasingly indifferent to the policy of low prices. Therefore, this requires companies bring competition in the field of differentiation and improving the quality of services and products.

As per the literature, seasonality is a strongly inherent characteristic of Tourism as well as well as many other productive activities (Ridderstaat et al.; Alegre & Sard; Giráldez et al.). Seasonality implies the existence of two different periods of demand: the peak period, which constitutes the phase of highest level of consumption, and the valley period, the stage of lowest demand for that product or service. Each of these periods is repeated from one year to the next, at the same time of the year; while in some cases the frequency is quarterly, in others it can be monthly, weekly, or even daily. The causes that originate the seasonality are usually grouped into two large Categories: natural factors and institutional factors.

Climate is the main natural cause of fluctuations in demand for certain types of tourism, defining both the length and the quality of the tourist stations. The specific climatic conditions that are required to carry out the activity do not occur in all seasons, and this is what generates the seasonality in the demand of the destination. This is the case of sun and beach tourism, sports-based tourism of winter and health tourism (Alegre & Sard). On the other hand, the occurrence of extreme weather events makes it impossible for tourists to visit or make them less accessible at certain times of the year (Ridderstaat et al.).

The realization of social, cultural, religious and business events that are repeated year after year approximately on the same calendar date by tradition generate seasonality in tourism. This is the case of cultural festivals, national holidays, Film festivals, Holy Week and Christmas celebrations. This also includes the achievements of conventions, exhibitions, fairs, congresses and meetings for the dissemination and exchange of information in relation to a specific activity or an area of scientific knowledge (Dommer). The types of tourism that may be conditioned by these institutional factors may be cultural tourism that is based on the knowledge of cultural products such as it may be to contemplate the customs and monuments of an ancestral

civilization, or products related to art such as visiting museums and historical monuments (Alegre & Sard).

According to Song & Turner (2006), most published studies have used quantitative methods in research of tourism demand. These methods are divided into two subcategories: time series models and econometric approaches. It can be observed mainly in the case of the Balearic Islands that the second subgroup has been employed. In much of the analysis performed by the previous authors in this field the multiple regression method is used to predict or estimate travel demand, although estimated by ordinary least squares may involve certain limitations, such as frequent non-seasonal tourist series and spurious regression problem. Such limitations of that model are trying to solve in most cases by building error correction models (ECM).

As per Olsen et al., to make sense of the relationship between different variables, there is a need to rely on the diffusion model, in which the traditional model of economic theory is introduced. According to Sastre & Juaneda, diffusion model is based on the fact that most individuals restrict the choice of destination to travel based on the information available, as main access routes to information which are the deliberate search (read brochures, books), by chance and through peers' close comments.

On the other hand, literature shows that in order to analyse cyclical evolution and patterns of tourist arrivals and predict future fluctuation, the time-series method can be optimum approach (Burger et al.; Lim & McAleer; Song & Li). This method includes the usage of past values of a particular variable alone in order to project it into the future.

A time-series denotes the observations on a variable that takes place in a time sequence. A time series is deterministic if it can be predicted exactly. The elementary approach in time-series method is (Song & Li):

(a) To recognise a data pattern founded on the past time-series. This can be carried out by distributing the time-series into components of data, like seasonality or trend.

(b) Making forecasts by extrapolating the data pattern.

As far as tourism demand cycle is concerned, it is fundamentally a type of a business cycle. A business cycle comprises of the concurrent development of several financial activities, followed by a comprehensive recession, shrinkage and revival period that combines into the expansion stage of the subsequent cycle (Smeral). This order of change is recurring but not episodic.

A tourism demand cycle comprises of an interval of tourist growth which upsurges till it reaches a peak and then slides into downturn, recovers and launches into a new stage of tourist growth. A turning point takes place when a time-series that was on the rise instigates to decline, or vice versa (Rosselló).

Choosing the timescale is very important. Baxter & King (1999) pointed out that data accumulated on the yearly-basis might fail to represent several cyclical turning points and are not appropriately comprehensive. Alternatively, data gathered on the daily-, weekly- or monthly-basis incline to be excessively stationary. With the intention of address this issue, the researcher employed monthly growth ratio recommended by Dommer (2009) calculated on monthly statistics.

If the importance of tourism is a fact within the Spanish economy, it is not less true that has been gaining ground in global economic activity. It should be noted that while its economic prominence was increasing, there was an interest growing by his study. Alegre & Sard indicate that in the eighties there were few academic journals that publish topics related to tourism. The work of Lim & McAleer offers information on work in the tourism field published over the last decade in magazines key tourist. On the other hand, Li et al. analysed the content of more than

one thousand articles published from 1999 to 2008 in the most important tourism magazines. According to Giráldez et al., 80% of the articles by Spanish researchers to the economy of tourism have been published in international journals Tourism Management, Tourism Economics, Annals of Tourism Research, International Journal of Contemporary Hospitality Management and Journal of Travel Research.

The following table highlights the most important studies that were the basis for the previous literature in this area.

Authors And Year	**Article**	**Magazine**
Sastre and Juaneda (1992)	"A method of forecasting tourism movement in the Balearic Islands"	Journal of Applied Economics
Garin-Munoz and Montero-Martín (2007)	"Tourism in the Balearic Islands: A dynamic model for international demand using panel data"	Tourism Management
Alegre and Sard (2015)	"When demand drops and prices rise. Tourist packages in the Balearic Islands during the economic crisis "	Tourism Management
Giráldez, Álvarez-Díaz, and Gómez (2015)	"Detection of Empirical Relationships between the NOA and International Tourism Demand to the Balearic Islands "	Annals of Tourism Research
Plumed, Gómez and Martín (2018)	"Tourism planning, promotion and environmental sustainability: the case of Spain "	Journals of Travel Research

3. Methodology

In the present case, time-series method has been employed to measure the growth and turning points in the tourism demand cycle. This approach has been previously employed by (Sastre & Juaneda), (Olsen et al.) & (Rosselló). However, the present study uses up-to-date data.

First of all, monthly growth of tourist ($T_{1,12}$) was employed to signify the (or year-on-year development), and was computed using the subsequent equation:

$$T_{1,12} = \frac{y_{t+12} - y_t}{y_t} \quad (1)$$

Where y_{t+12} is the number of tourists arriving at the Islands 12 months after the month examined. Nevertheless, the recurrent high amount of abnormality of $T_{1,12}$ still might not allow defining cyclical episodes. It is essential to get a moderated year-on-year rate by a moving average of monthly growth. For this tourist fundamental trend ($T_{12,12}$) has been developed and computed as:

$$T_{12,12} = \frac{\sum_{j=0}^{11} y_{t+j}}{\sum_{j=1}^{12} y_{t-j}} - 1 \quad (2)$$

The conditions for the cycle dating of in this paper bases on the classical NBER technique and was essentially carried out by means of visual assessment (or employing a computer program).

4. Data collection and analysis

The data has been collected from number of online databases and websites. During the data search, number of British and German tourist arrivals in the Balearic Island was used as the dependent variable. The most up-to-date tourism data was employed from several databases such as United Nations-World Tourism Organization (UN-WTO, 2017), Tourism Statistics

(UNWTO ELIBRARY), IET (The Institute for Tourism Studies) and the IBESTAT (Statistical Institute of the Balearic Islands).

Data analysis was carried out by means of MSFT Excel. The researcher used this software to compute equations and to generate graphs and tables.

5. Results

5.1. Overall physical arrivals of tourists

The following figures 2 and 3 show the number of tourists visited the Island during the past 36 years.

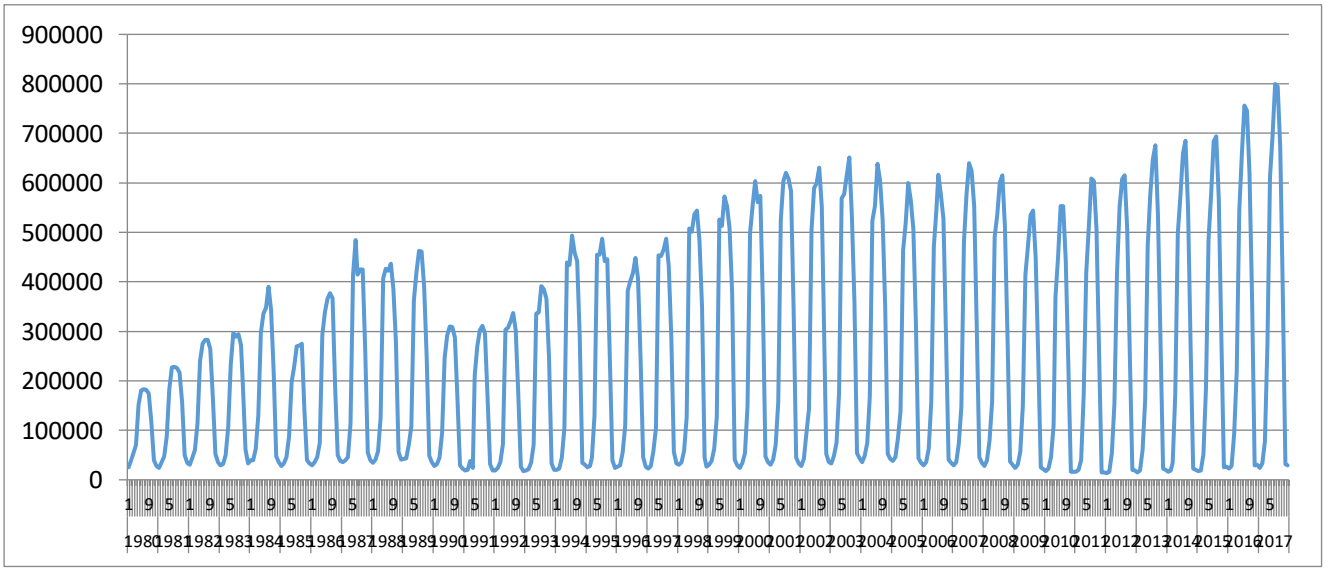

Figure 2: Number of Tourist Arrival from the UK

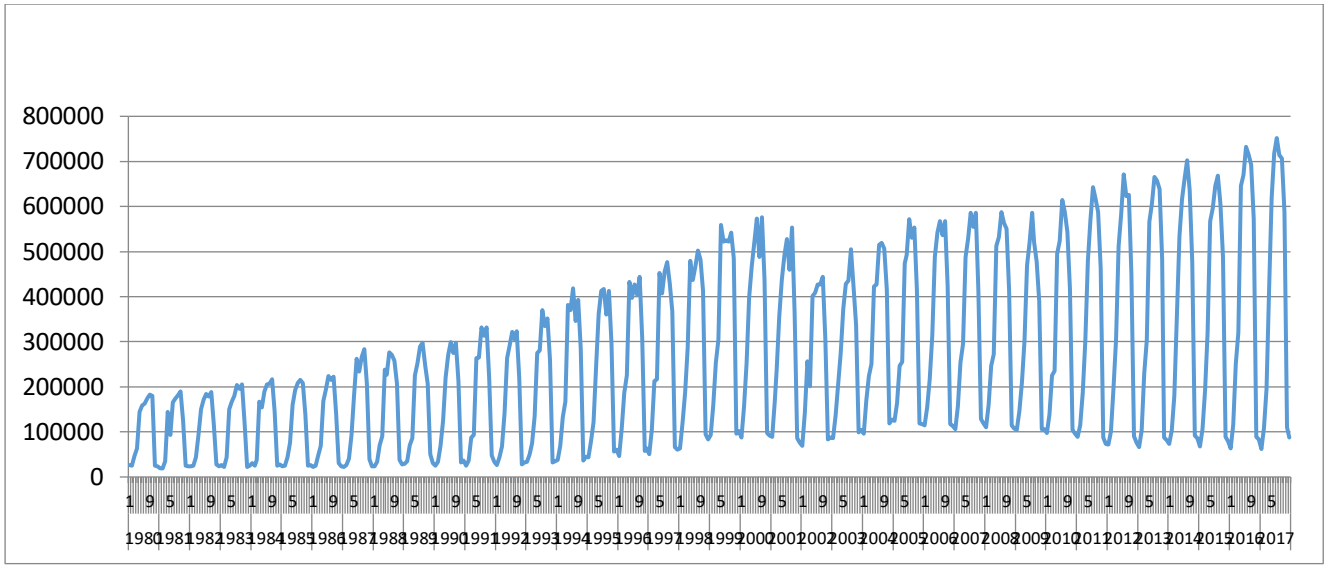

Figure 3: Number of Tourist Arrival from Germany

5.2. Monthly Growth of Tourism

The following figures 4 and 5 illustrate the calculated monthly growth of tourist ($T_{1,12}$) for both. As it can be seen, there is no seasonal element and $T_{1,12}$is employed as the dependent variable in the specification.

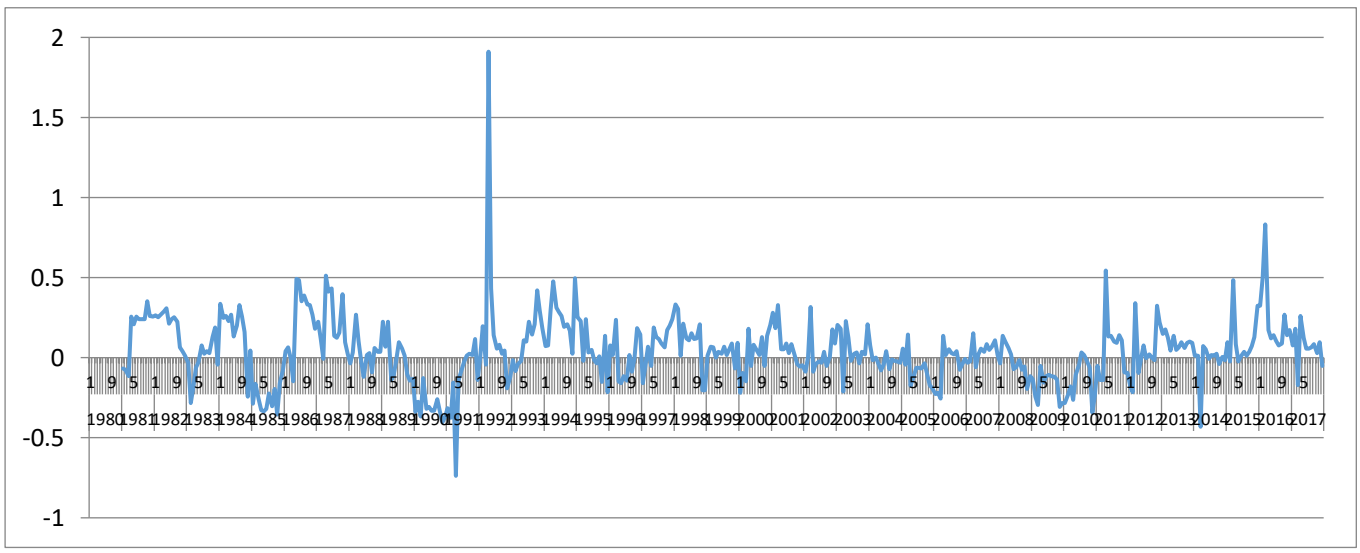

Figure 4: Monthly Growth of Tourism for the UK tourists

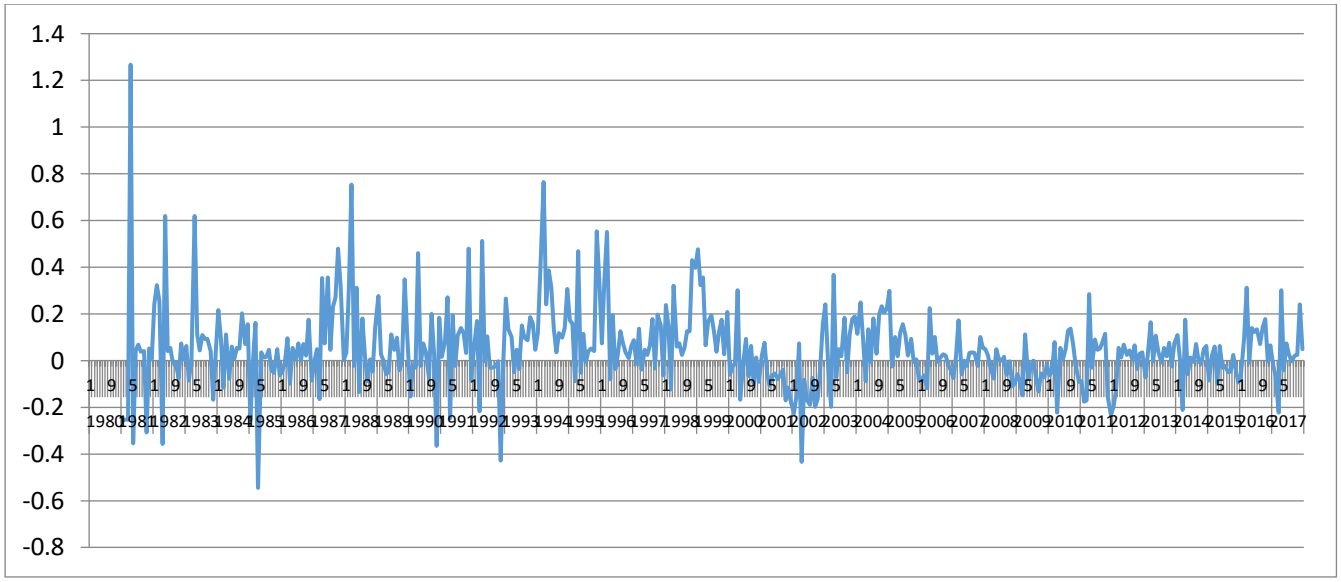

Figure 5: Monthly Growth of Tourism for German tourists

5.3. Tourist fundamental trend

The following figures 6 and 7 illustrate the calculated Tourist fundamental trend ($T_{12,12}$).

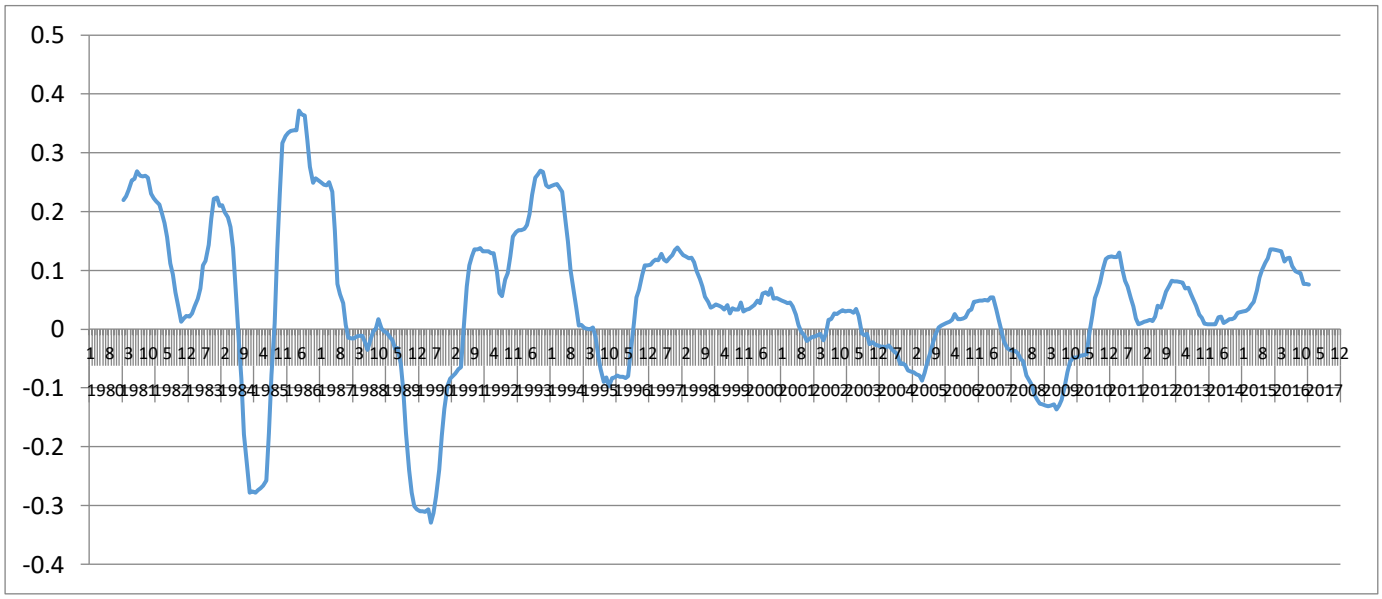

Figure 6: Tourist fundamental trend for the UK tourists

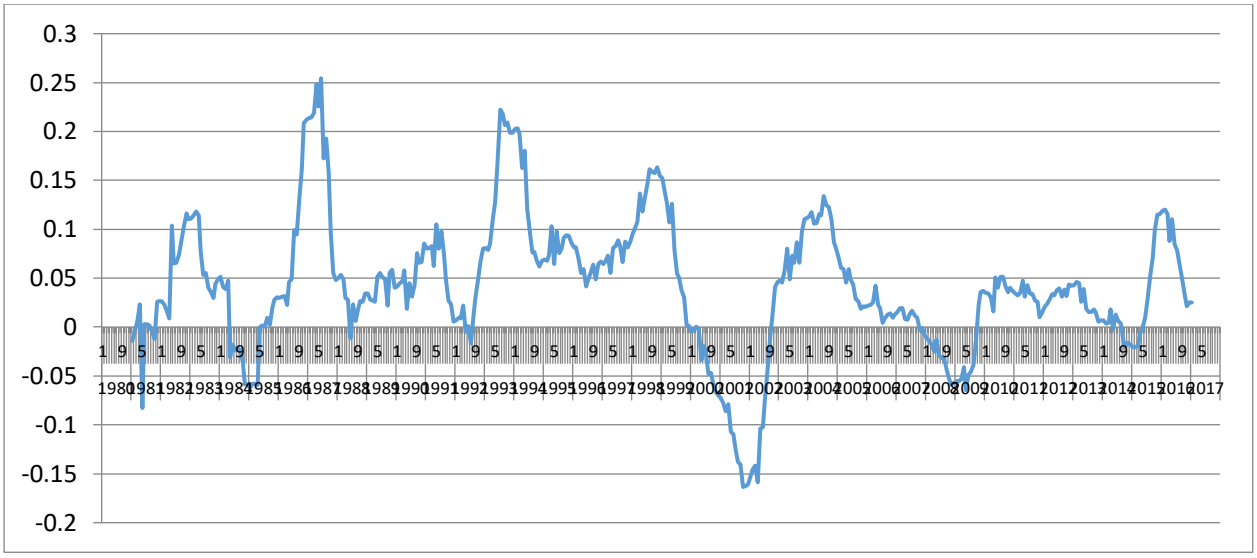

Figure 7: Tourist fundamental trend for German tourists

6. Analysis

The results are conflict with the previous research conducted by Rosselló (2001) who examined fluctuation of turning point of British and German tourist arrivals to the Balearic Islands, estimated precisely monthly tourist growth, defined peak and tough of tourist arrivals, analysed tourism underlying trend for both countries of UK and Germany moreover, forecasted tourist arrivals using macro-micro economic variables. The author found that mean duration of the UK tourism demand cycle is 4 years whereas the mean duration of German tourism demand cycle is 3 years.

The results showed an upsurge in the overall tourist arrivals from both UK and Germany; however, considerable fluctuation can be witnessed in the case of the UK (figure 2), while the tourists flow from Germany increased smoothly (figure 3). Overall, the number of tourists visiting the Islands was 10,000 which surged to around 70% in the case of the UK (approx. 80,000 tourists in 2016) while 65% in the case of Germany (approx. 75,000 tourists in 2016). Means both countries witnessed the considerable growth in tourists' volume within the span of 26 years.

Figures 6 and 7 show Tourist fundamental trend for the UK and German tourists. It can be seen from the figure 6 that the UK tourism peaked in 1981, 1983, 1986, 1993, 1997, 2000, 2003, 2007, 2011, 2013 and 2016. Alternatively, it fell in 1982, 1985, 1990, 1995, 2005 and 2008-2009. The means that tourism cycle duration is three years. This is in conflict with Rosselló. Nonetheless, a growing cycle length can be noticed. The mean the contraction duration is two years and five months, less than the expansion period.

Likewise, it can be seen from the figure 7 that German tourism peaked in 1983, 1987, 1991, 1998, 2004, 2010 and 2016 and fell in 1981, 1985, 1992, 2001-2002, 2005, 2008-2009 and 2014-15. The means that tourism cycle duration is five years and is increasing. The rise and fall during the decade of 1980s can be attributed to ups and downs which the German economy faced after the fall of Berlin Wall. The decade of 2000s also suffered the similar fate with GDP growth of Germany lower than Eurozone (Romei). The financial collapse of 2008-09 is an additional factor. This result is also in conflict with Rosselló. The increase in tourism cycle duration as compared to Rosselló can be attributed to high transparency of beaches and increased infrastructure facilities which have augmented considerably in the past two decades.

Figures 2 and 3 show that the tourism has constantly increased till 2016 with 31.3 % for German arrivals and up to 83.1 or the UK. There are different factors that can influence the variables among which ones we can find, the political situation which is somehow linked to the economic and financial crisis. For instance, it can be seen that 13.8% of incoming tourists from UK whereas Germany counts for only 2.1 % during the month of February (figure 4 and 5). It can be then concluded that the economic crisis of 2008 does not have any particular effect immediately, however, it can be observed how in 2009 there is drop in the incoming flow with -24.3% for UK and -9.0% for Germany (figure 4 and 5).

Figure 4 and 5 shows that there is a recovery in the tourism industry in the 2013 with 15% of arrivals for the British and 3.9 % for German (in the month of February). This recovery can also be explained by the fact that there is a positive cycle of growth, boosting job positions as well as new start-ups from foreigners (Alegre & Sard). New companies are actually set up by Germans and British, hiring new staff from Germany and UK mostly for their fluency in the language required for the targeted clients.

As expected during the economic crisis of 2008 and 2009, the tourism from both Germany and the UK decreased. Alegre & Sard stated that the economic crisis of 2008 and 2009 proven to be a difficult year for tourism in Spain period. Therefore, it cannot be denied that international tourist arrivals to the islands also depend on the economic conditions of the European Union. As for the attacks on Spanish territory, the results showed that the British were very sensitive to specific events of this type and require authorities consider, in addition to the direct costs and the human drama associated with a terrorist attack, damage which may result in the tourism sector. At the same time the revolts of the Arab countries showed a significant increase in tourism demand in Spain. Thus, getting the loyalty of this demand for British tourists would be a major challenge (Li et al.).

The results are in line with Alegre & Sard who sought to approximate the negative effects of jihadist attack in Atocha station in Madrid on demand for British tourists, taking the value one from March 2004 until February 2005. Moreover, the attacks of the terrorist group observed ETA operating in areas of tourist interest with the object of harming the respective sector in Spain, so take the value one in the months attacks have been carried out. Additionally, protests in Arab countries left positive effect on international tourism to Spain from the Tunisian revolution in November 2010. Political instability during the years 2014 and 2015 in these

countries has served as an incentive for tourists to be directed to safer destinations such as Balearic Islands (Giráldez et al.).

There is another variable which needs to be considered, which is the one concerning the ecology and sustainable tourism. This is an increasing issue that can match proportionally the increase of tourism. It has to be taken into account that non sustainable tourism has a negative effect on the future predictions of incoming flow. Lastly, political situations in Middle East are possibly in correlation with the increase of tourism in Balearics Islands. Even though there has been a crisis in 2008, this crisis happened at almost the same time of conflict in the main touristic eastern countries (Giráldez et al.).

7. Timetable

The research was completed within four months starting from 1st May 2018 to 1st September 2018. The following table shows the timeline for this study.

Task	Date
Review of literature	1st May 2018 to 20th May 2018
Working on Research methodology	21st May 2018 to 10th June 2018
Collection of data	11th June 2018 to 30th June 2018
Data tabulation and results	1st July 2018 to 10th July 2018
Results analysis	11th July 2018 to 30th July 2018
Finalising the study	1st August 2018 to 30th August 2018
Presentation of the final study	1st September 2018

8. Conclusion

The objective of this study is to investigate tourist demand in the Balearic Islands with the intention to understand the evolution of this in recent years. This analysis will help predict, somehow, their behaviour in the future. There is a multitude of cultural, social, economic, political and geographical aspects that can be considered incentives for tourism demand items. However, not all allow themselves to be observed in analyses aimed at this area, either by the

difficulty of obtaining data or the complications that arise when introduced in the time series method.

Tourism is in Balearic Islands the main economic activity and despite its ups and downs, it has remained a profitable sector in a constant development. The forecast for forthcoming years is mostly positive if the analysis is based on the last 36 years. In 2016, tourism from Germany and the UK was at its peak with 31.3 % increase in German arrivals and up to 83.1 from the UK. The results presented in this study can be quite valuable for the different stakeholders in the tourism sector such as hotel and resort owners, tourists, travel agents, transportation companies and government policy and decision makers.

It can be concluded that UK tourism peaked in 1981, 1983, 1986, 1993, 1997, 2000, 2003, 2007, 2011, 2013 and 2016. Alternatively, it fell in 1982, 1985, 1990, 1995, 2005 and 2008-2009. The means that tourism cycle duration is three years. On the other hand, German tourism peaked in 1983, 1987, 1991, 1998, 2004, 2010 and 2016 and fell in 1981, 1985, 1992, 2001-2002, 2005, 2008-2009 and 2014-15. The means that tourism cycle duration is five years and is increasing.

To make estimations more precise and accurate, it is recommended to employ other forecasting methods such as econometrics methods in the future studies to effectively take in account cyclical patterns and fluctuations. Modern tools like Google Trends can help make predictions and provide interesting information that could be very useful for future work in this area. Moreover, the future research should also examine the determinants which affect the tourism flow in the Islands from Germany and the UK.

References

Alegre & Sard. "When demand drops and prices rise. Tourist packages in the Balearic Islands during the economic crisis." Tourism Management, 46, 375-385 (2015).

Baxter & King. "Measuring business cycles: approximate band-pass filters for economic time series." Review of economics and statistics, 81(4), 575-593 (1999).

Burger et al. "A practitioners guide to time-series methods for tourism demand forecasting—a case study of Durban, South Africa." Tourism management, 22(4), 403-409 (2001).

Dogru et al. "Remodeling international tourism demand: Old theory and new evidence." Tourism management, 60, 47-55 (2017).

Dommer, S. " Measuring Business Cycles." (2009).

Garin-Munoz & Montero-Martín. "Tourism in the Balearic Islands: A dynamic model for international demand using panel data." Tourism Management 28 (2007): 1224–1235.

Garin-Munoz and Montero-Martín. "Tourism in the Balearic Islands: A dynamic model for international demand using panel data." Tourism Management 28 (2007): 1224–1235.

Giráldez et al. "Detection of Empirical Relationships between the NOA and International Tourism Demand to the Balearic Islands." Revista Turismo & Desenvolvimento, 3(13, 14), 1155-1156 (2018).

Li et al. "Forecasting tourism demand with composite search index." Tourism management, 59, 57-66 (2017).

Lim & McAleer. "Time series forecasts of international travel demand for Australia." Tourism Management, 23(4), 389-396 (2002).

Olsen et al. "Forecasting industry turning points: the US hotel industry cycle model." Hospitality Management, Vol 18, 1999, pp 159–170 (1999).

Perles-Ribes et al. "Brexit Announcement: Immediate Impact on British Tourism in Spain." Cornell Hospitality Quarterly, 1938965518777699 (2018).

Plumed et al. . "Tourism planning, promotion and environmental sustainability: the case of Spain." (2018).

Ridderstaat et al. "Impacts of seasonal patterns of climate on recurrent fluctuations in tourism demand: Evidence from Aruba." Tourism Management, 41, 245-256 (2014).

Romei, Valentina. Germany: from 'sick man' of Europe to engine of growth. 2017. <https://www.ft.com/content/bd4c856e-6de7-11e7-b9c7-15af748b60d0>.

Rosselló, J N. "Forecasting turning points in international visitor arrivals in the Balearic Islands." Tourism Economics, 7(4), 365-380 (2001).

Sastre & Juaneda . "A method of forecasting tourism movement in the Balearic Islands." World Congress of the RSAI, Palma de Mallorca (1992).

Smeral, E. "International tourism demand and the business cycle." Annals of Tourism Research, 39(1), 379-400 (2012).

Song & Li. "Tourism demand modelling and forecasting—A review of recent research." ourism management, 29(2), 203-220 (2008).

UN-WTO. Tourism highlights 2014 . Vers. http://www.e-unwto.org/doi/pdf/10.18111/9789284416226. 2014. 2018.