A New Business Model: Low Cost Carriers (The Case of EasyJet)

I. Rouby,
Faculty of Tourism and Hotels,
Alexandria University-Egypt.
E-mail: itenelerouby@yahoo.com

Abstract

In the last three decades, a new phenomenon dominated the airline industry; the emergence of Low Cost Carriers (LCC). This new business model was first introduced by Southwest Airline, and then it spread to include Europe then Asia. Their lower fares are considered their main competitive advantage. These airlines manage to lower their fares by adopting highly efficient operational strategies which help them cutting their costs and smoothly adapting to market changes.

The objective of this research is to examine the business model of LCCs with a thorough review of the literature at the first stage. The second stage involves using time series analysis to forecast the number of passengers for easyJet, a successful British Low Cost Carrier which started off in 1995. The data analyzed in this study was provided by the secondary data of the annual reports of easyJet. The significance of the variable “Air Passenger Traffic Worldwide” via “Total Passenger Traffic easyJet” was addressed with a linear regression.

The results show, that there is a great potential for easyJet to expand in the future in terms of passenger traffic. As a result of some external factors like the increasing tendency for travelling around the world, the rise of the middle class, the emergence of new markets, economic instabilities pushing some scheduled airlines out of the market and internal factors like the constant developments in easyJet’s fleet, it is predicted that it will achieve greater traffic growth in the future.

Key Words: easyJet, Forecasting, LCC, Scheduled Airlines, Time series, Tourism Demand
1. Introduction

The term Low Cost Carriers (LCCs) or Low Cost Airlines (LCA) can be referred to as “any carrier with low ticket prices and limited services regardless of their operating costs” (Macario et. al, 2008)

Low cost carriers (LCC) have grown in the last three decades and have become a tempting alternative to Full Service Airlines (FSA). Low Cost Carriers utilize a business model that reduces operational costs. In order to compensate revenue loss in tickets, they may charge customers for auxiliary services like meals, priority boarding and baggage. This new type of service airlines is one of the fastest growing economic segments and at times, LCCs were the only sector growing in periods of economic and political uncertainty (Eurocontrol, 2017).

According to (InterVISTAS, 2013), these carriers have been demonstrating sustained growth, with gradually increasing fleet sizes, number of passengers served, revenues, and in many cases profits. It is typical to start operating with three or so aircraft, and then steadily add capacity. Their growth rates in their first years may reach 100% which then soothes to 30-60% at the two to eight year point.

LCCs have played a fundamental role in the expansion of the aviation industry in the last decades and it is expected that their growth will continue. Since the emergence of Southwest Airlines in the U.S., there have been several attempts to implement LCCs business models but with no success. That was due to government barriers, airport and other infrastructure constraints and lack of knowledge of how to successfully implement the new business model. Nowadays, LCCs are one of the major components of the aviation market. Their rise can be referred to several reasons. Firstly, due to market liberalization in many countries in addition to air service agreements, LCCs seized the opportunity to offer innovative services and lure new customers looking for air services with low prices. In 2015, the European LCCs captured 41% of the seat capacity in Europe. In Africa, although market access barriers are high, the share of LCCs within the region is at 9% while in Asia, the LCCs share accounted for 23%.

Secondly, LCCs managed to offer what potential air service customers value and responded to customer needs, namely good quality for lower prices. Thirdly, LCCs have responded quickly to market conditions and understood that keeping a competitive advantage requires a ruthless force to cut costs, increase revenues, and maximize efficiency.

LCCs were able to compete with FSAs, because they were able to lower their costs as they don’t offer the same level of amenities, they don’t manage the same degree of connectivity of FSAs and they don’t have to bear legacy costs. As passengers nowadays don’t need network connectivity for all their journeys or don’t need service amenities, these travelers are willing to substitute the FSAs product for LCC trips. If FSAs were to lower their costs in response to LCC strategies, they would decrease their revenues.
The objective of this research is to examine the business model of LCCs, which is considered the key driver to cost reductions giving them the opportunity for lower-priced offerings. The research also highlights the reaction of FSAs towards the fierce invasion of LCCs of the air service market. In addition, the potential for future growth of traffic for easyJet was tested using time series forecasting.

This research is divided into two parts. The first part consists of a thorough review of the literature to examine the new business model of LCCs versus FSA (Full Service Airlines). The second part, covering the methodology of research, was dedicated to hypotheses testing. It comprised of applying times series forecasting on the secondary data of monthly passenger traffic of easyJet covering the period from January 2004 till February 2018. A linear regression analysis was conducted to simulate cause and affect relationship between variables “Air Passenger Traffic Worldwide” and “Total Passenger Traffic easyJet”. Also Pearson’s correlation coefficient was calculated to examine direction and magnitude of association between variables “crude oil prices” and “total air passengers worldwide” and “total passenger traffic easyJet”. The research hypothesized the following:

\[ H1: \text{There is a significant relationship between easyJet air passenger traffic and number of air passenger traffic worldwide.} \]

\[ H2: \text{There is a potential for growth in the future for easyJet in terms of passenger traffic.} \]

\[ H3: \text{There is a significant relationship between average crude oil prices and total air passengers worldwide and total passengers of easyJet.} \]

2. Literature Review

2.1 Changing Business Environment

It is crucial to examine the changing market environment within which the aviation industry has been operating and which has affected its development in recent years.

Liberalization of the economy means “to free it from direct or physical controls imposed by the government”. The most affecting trend which revolutionized the structure and operating models of the aviation industry was the liberalization of international air transport. Consequently, many governments allowed the emergence of new domestic and/or international airlines able to compete directly with their established national carriers. For example, state of the European Union (EU) can benefit from open skies with unconstrained market access to any routes for airlines and the elimination of all capacity, price controls and ownership limitations (Cento, 2009).

The decline in traffic growth rates had also affected the development of air transport. In absolute traffic terms a 2.0 % growth in 2004 compared to a 12 per cent rise in the late 1960s implies a noteworthy slow-down in the traffic growth rate.
Also the decline in yield – that is the average revenue produced per passenger-kms or tonne-kms carried was one of the factors significantly affecting aviation industry.

Air transport is considered a capital intensive industry with small marginal profits. Therefore, airlines always try to keep their operational cost as low as possible as there are some costs that cannot be controlled by management like fuel costs (The World Bank, 2014). Porter (2008) explained that the airline industry has the lowest average return on invested capital (ROIC) if compared to a list of selected industries. The average ROIC for airlines was a mere 6.9% between 1992 and 2006, where top performing sectors, had an average ROIC above 40%. Therefore, the LCCs business strategies focused primarily on reducing operating costs which consequently intensified the competition with FSAs which are burdened by high legacy and operational costs.

2.2 Key Elements of the New Business Model

In their study Francis et al. (2006) developed a typology, distinguishing among five broad types of low cost carriers:

a. The Southwest copy-cats – Airlines that started from scratch as LCCs.

b. Subsidiaries – Airlines that have been set up as subsidiaries of “legacy” airlines and emerged to get back a part of the market of legacy airlines that was taken away by LCCs.

c. Cost cutters – Are long established “legacy” airlines which are trying to adopt cost cutting strategies like charging passengers for meals or offering low cost one way tickets.

d. Diversified charter carriers – Low-cost subsidiaries developed by charter airlines.

e. State-subsidized companies – These are not true low cost carriers but they act in the market as if they were. They are financially supported by government ownership or subsidies allowing them to offer low fares without the need to cover their long run average costs.

LCCs are characterized by a business model that relies primarily on some key elements.

These include:

Service Offering: The unbundling of fares is one of the characteristics of the low-cost airline business model, which concentrates on separating the product into distinct elements (Fageda et al., 2015). These elements are sold separately. This results in cost reductions and offers opportunities for revenues. Food and beverage for instance are offered for an extra charge. Most LCCs have no pre-assigned seating arrangements and operate on a first-come, first-served basis. However, some LCCs such as easyJet have started issuing “speedy boarding” tickets that can be purchased in advance. Also LCCs have firm rules concerning luggage weights per passengers. Some tickets don’t include any checked-in luggage and have to be purchased separately (Vidovic et al., 2006.)

Point-To-Point versus Hub-and-Spoke Structures: The majority of LCCs focus on point to point routes in contrast to “hub-and-spoke” system adopted by FSAs. The “Spoke” flights
assemble the passengers in one or more “hub” airports where passengers continue their flights onward from these hubs. This operation is very expensive because of the excessive use of infrastructure such as ground equipment and runways. Furthermore, in times of congestion, diseconomies of scale may arise because hubs have to deal with these congestions leading to higher fuel consumption and labor costs (Vidovic et al., 2013).

LCCs in contrast are able to reduce costs by offering point-to-point routes, benefiting from economies of scale and enhanced utilization of facilities and employees.

Usage of Secondary Airports: LCCs usually use secondary airports for the following reasons: lower airport charges, the availability of slots, and reduced congestion. In addition to that, LCCs manage to get incentives from remote airports. Local authorities recognize that LCCs are considered a potential driver for social and economic developments, and are willing to provide financial help such as tax exemption and marketing support (Soyk et al., 2017).

Additional cost reduction factors include the use of a standardized fleet of cost-efficient and fuel-saving aircrafts, allowing a better flexibility of crew assignment and savings in training, qualification and stock of spare parts (Franke, 2004). In addition to standardized service, free services on board are omitted and intermediaries are bypassed. Reservations are made online (easy-Jet sells 95% of its seats in this way) or by telephone. Offering point-to-point tickets with no connections simplifies luggage handling and increases planes turnaround. No pre-assigned seating, no frequent flyer programs and non-integration into alliances is the rule. In addition, no compensation to passengers is offered in the form of a hotel reservation or transfer to another airline if a flight is cancelled or delayed. They get additional revenues by offering direct or indirect services such as car rentals or hotel reservations. They rent advertising possibilities on board or on the Internet. Some figures show that the LCCs workers are paid less than their fellow workers in the FSAs although having a heavier workload (Gillen et al., 2004).

The following table (1) summarizes key elements of the business models adopted by LCCs and FSAs.

<table>
<thead>
<tr>
<th>Feature</th>
<th>LLC Strategy</th>
<th>FSA Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs</td>
<td>Simple processes to reduce costs. Reduced training, servicing as well as crew and maintenance costs.</td>
<td>Collective agreements and network service result in complex processes. Thus, the adoption of continuous reforms and improvement management strategies are only initiatives with no strategic alterations.</td>
</tr>
<tr>
<td>Hubs</td>
<td>Hubs are largely results of market sizes.</td>
<td>Hubs are strategic assets.</td>
</tr>
<tr>
<td>Connections</td>
<td>Connection opportunities are sometimes offered but aren’t a primary product dimension.</td>
<td>Hubs are built to maximize the number of possible connections with shortest possible connection times. This results in the need for</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Example</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Interline connectivity</td>
<td>Interlining is rare. It requires significant additional costs and systems investments.</td>
<td>Interline principles are a core concept for FSAs. Considerable investments are made to handle interline connectivity.</td>
</tr>
<tr>
<td>Code share</td>
<td>Some cases exist, but are relatively rare and not a major focus of the carrier.</td>
<td>A key strategic practice which allows the FSA to sell a network of services.</td>
</tr>
<tr>
<td>Secondary airports</td>
<td>Some LCCs have used this as an important business strategy for cheaper airport fees while others have combined the use of secondary with primary airports. Outsourcing of most non-flying jobs (ground handling, call centers, aircraft maintenance).</td>
<td>FSAs often serve secondary markets in regions from their hubs.</td>
</tr>
<tr>
<td>Alliances</td>
<td>Not observed.</td>
<td>A key strategic development to meet consumer demand for service from large network carriers.</td>
</tr>
<tr>
<td>Class of service</td>
<td>Generally one class, but in some cases business class seating and amenities are provided. No seat allocation for faster boarding.</td>
<td>Largely based on two classes, business and economy and sometimes first class on international and oceanic flights.</td>
</tr>
<tr>
<td>Single aircraft type</td>
<td>LCCs typically operate a single aircraft type to maximize aircraft utilization. Some indication that LCCs may adopt large regional jets.</td>
<td>In order to serve as many markets as possible and connect them, the adoption of multiple aircraft types, with each suited to different route lengths and traffic densities is needed.</td>
</tr>
<tr>
<td>Service strategies</td>
<td>LCCs mainly focus on bare bones services. Increasingly LCCs are adding some service enhancements, such as lounges, frequent flyer programs, however, these are provided on a fee for use.</td>
<td>FSAs typically offer a range of value added services.</td>
</tr>
<tr>
<td>Customer Service orientation</td>
<td>Most LCCs have successfully developed a strong customer service culture.</td>
<td>Adequate customer service culture among employees.</td>
</tr>
<tr>
<td>Product bundling</td>
<td>The LCC offers a core product at a low price. Additional services, such as lounge access, meals and beverages are typically sold. Frequent flyer rewards are offered when a higher fare is booked.</td>
<td>FSAs offer bundled air services as a matter of strategic choice and legacy. This will include features such as lounge access at no charge for frequent travelers, on board meals on medium and long haul flights, and frequent flyer rewards.</td>
</tr>
<tr>
<td>Seating features</td>
<td>Often very dense some do not have pre-assigned seating.</td>
<td>Varies by route, international routes offer a larger seating area, pre-assigned seating dominates.</td>
</tr>
<tr>
<td>Distribution channels</td>
<td>Preference is online and direct sales to save the commissions of intermediaries</td>
<td>Increasing movement towards online and direct sales to reduce commissions to third parties.</td>
</tr>
<tr>
<td>Personnel</td>
<td>LCCs use a minimum number of cabin crew usually performing multiple tasks. Lower wage scales if compared to FSAs and wages are usually performance-based.</td>
<td>Adequate number of cabin crew and high average wages with unionization.</td>
</tr>
</tbody>
</table>
Ticket policies

| No rebooking and no refund | Flexibility for rebooking or refund and sometimes for some fees. |

Source: InterVISTAS (2013) and Macário et al. (2008)

A prerequisite for a sustainable success of LCCs are low cost operations. As explained in Magill (2014), a low cost pattern can save up 35% to 50% costs through operational and managerial features (Figure1). The traditional airlines are also trying to reduce costs as well but they lag far behind the LCCs. The philosophy of FSAs is to focus on passengers with a willingness to pay.

Figure 1: Unit Cost Advantage is Derived from Many Factors

Source: Magill (2014)

Some trends worldwide acted as catalysts to intensify the Low Cost Carrier phenomenon. These include regulatory framework; degree of entrepreneurship; density of population and relative wealth; travelling culture; airport availability; adherence to internet facilities. There is a direct relation between these factors and the development of societies and development life cycle of Low Cost Airlines.

The strategy of price discriminations is used by many industries especially in transport industries to reduce costs. This is favorable to use, when separating markets can yield more profits than keeping markets combined. This strategy depends on the elasticities of demand of clustered markets. Customers in rather inelastic sub-market are charged a higher price, while consumers in the relatively elastic sub-market are charged a lower price (Investopedia, 2018).

According to Dhingra et al. (2018) both FSAs and LCCs engage in price discrimination schemes, in the sense that travelers purchasing tickets at different points in time before a flight, or with different restrictions on the use of the ticket, pay different prices.

LCCs have removed the barriers of the need to purchase a return ticket in order to get lower prices. They also removed the minimum and maximum stay requirements which were in addition to low priced one way tickets considered a huge leap in the air pricing methodologies.
According to Macario et al., 2008, so far most LCCs have tried to avoid mutual competition. For instance, Ryanair, focused on smaller markets and regional airports, while easyJet is focusing on bigger markets and primary airports. Three scenarios may arise. LCCs will continue to avoid competition or a price war will be set off or else consolidation and the emergence of alliances will take place. Historical experience in the Air Transport business points to consolidation and the possible emergence of alliances.

Evidence of competition between air transport services and other modes of transport exist. Chen et al. (2015) found a substantial increase in competition between air transport services and rail services. The two main United States’ road companies were forced to cut prices in order to reduce the shift of passenger to the LCCs. The rail company - Amtrak - for instance had to cut prices and introduced special deals for passengers.

The high speed train (HST) in Europe intensified the competition because it is the only land transport resolution than can directly compete in term of travel times for routes up to 500km. There has also been evidence of cooperation between airlines and HST. For example, Charles de Gaulle airport in Paris is directly served by the TGV network enabling Air France to compete, for passengers living in the Brussels region.

Two main operating approaches for LCCs in the market are either to open new markets or to enter old established markets competing with other airlines. Ryanair, follows primarily the first strategy. They first identify untapped markets, and then they search for secondary airports to serve these routes. In addition, they look for the support of authorities looking for fiscal incentives. Governments usually support such initiatives to induce social and economic development. The other strategy is being followed by easyJet. This airline prefers to penetrate large markets competing with other airlines by offering high frequencies and lower fares.

LCCs have a high load factor up to 80%, accommodation of a larger numbers of passengers, paying cheaper taxes since they use secondary airports, short haul flights without connections, reducing the negative effect of air transport on the environment by consuming less fuel thus decreasing emissions of harmful substances into the environment. Some 25% of Asian inter region seats are flown by these airlines, in Europe it is over 40%. Today, LCCs represent approximately 40% of the “Available Seat Kilometers” flown between European countries or domestically (Eurocontrol, 2017).

The following table (2) demonstrates the application of Porters five forces model on LCCs and the justification for the level of strength that was associated to each factor.
Table 2: The Effect of Porters’ Five Forces on LCCs Market Penetration

<table>
<thead>
<tr>
<th>Porters five forces</th>
<th>Strength</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat of new entrants</td>
<td>Medium</td>
<td>Deregulations and demand growth can be the drivers for more potential players although some markets like the European market are already saturated. Some other markets like the Middle East with a limited number of LCCs show more potential for new entrants.</td>
</tr>
<tr>
<td>Threats of Substitutes</td>
<td>Medium to Low</td>
<td>There is a threat for substitution in markets where train network is developed and has a high network of connectivity. But again in these markets long haul routes are to be accomplished by air services. Nevertheless, in markets such as the Middle East, where train network is in its infancy state, rail network is in no direct competition with LCC’s.</td>
</tr>
<tr>
<td>Bargaining Power of Customers</td>
<td>High</td>
<td>The reason that a customer will opt for an LCC is its cheap price. They can shift from one airline to another due to lower price offerings.</td>
</tr>
<tr>
<td>Bargaining Power of Suppliers</td>
<td>Medium</td>
<td>The aircraft supply side is monopolized by two major manufacturers, namely Airbus and Boeing. However the competition between the two competitors is severe. This allows airlines to get competitive pricing and good servicing when purchasing an aircraft. Also fuel companies pose some pressure on LCCs. Air service labor has also a bargaining power as it comes from the fact that there are no substitutes for several classes of employees such as pilots and mechanics</td>
</tr>
<tr>
<td>Rivalry among Competitors</td>
<td>High</td>
<td>The major selling advantage of LCCs is their low prices, which has resulted in a high competition in the airline industry, where legacy airlines are fighting to protect themselves from losing their market share. Also competition among LCCs does exist.</td>
</tr>
</tbody>
</table>

The business model of FSAs differs from that of LCCs. FSAs focus on offering their customers high level of connectivity, therefore they were engaged in alliances to allow this kind of connectivity, to coordinate schedules, reduce connection times and maximize the number of cities that can be linked together. Furthermore, FSAs have relatively high costs of labor and other service inputs. These legacy costs include labor compensation programs, productivity agreements, supplier relationships, and consumer expectations (InterVISTAS, 2013).

The biggest disadvantages of hub-and-spoke model adopted by FSAs are the complexity of connecting flights in the given time frame and high utilization during peak periods (Vidovic et al.; 2013).
To counter the threat of LCC’s, Full Service Carriers designed sophisticated revenue management softwares to separate leisure passengers from business travelers which enabled them to optimize revenue from every passenger. FSAs also tried to defend their market share by offering similar low prices of a new entrant, who was trying to operate from their hubs. Another strategy adopted by FSAs to keep their market share against aggressive competition from LCCs was adding supplementary flights or using larger aircraft on routes entered by LCCs to keep the load factor of the new entrant at an unachievable level. FSAs lower the fares until new entrants depart from these hubs, then FSAs start raising their prices again and reducing their capacity. This procedure has made it difficult for LCCs to compete with FSAs in their hubs (Barbot, 2004).

However, some authors explained, that many FSAs aim to provide a high level of service quality to improve customer satisfaction to replace the generic reputation of LCCs as low fares’ providers. Balcombe et al. (2009) show that not only price but also service quality triggers the passengers’ behaviors as well. This has led to the emergence of a hybrid model combining together features of FSAs and LCCs business models in an attempt to sustain their business and market share.

2.3 The Emergence of a Hybrid Model

Due to major changes in the global economy and consumer trends affecting directly the airline industry, FSAs and LCCs went through many changes.

On the one hand, FSAs are trying to reduce their costs in order to compete with LCCs. On the other hand, LCCs are trying to tackle new markets once dominated by legacy airlines. Thus, a new operating model, the hybrid model emerged which combines elements from both legacy airlines and Low Cost Carriers. Some LCCs are adopting business models that include shifting to primary airports, start hub and spoke activities, offering meals and other in-flight services as well as entering alliances. As a result, FSAs are also trying to change and adapt their focus. A hybrid model is a current business model that comprises the best features of both the legacy and low-cost business models in one, balancing costs which is the focus of LCCs and value which is the focal point of FSAs (Avram, 2017).

This model uses a mix of narrow- and wide-body aircraft models, utilizes third-party aggregators, uses intermediaries, practices limited code sharing, facilitates interlining and flies short- and long-haul and Inter-regional flights (Sabre Holdings, 2010).

The saturation of some LCCs markets and the slowdown in its growth forced them to shift to business strategies traditionally used by full-service airlines; i.e. fare bundling, connecting flights and code sharing (de Wit et al.; 2012). Other studies (Henrickson et al., 2016; Dobruszkes et al., 2017) explained that LCCs are increasing their operations in main airports alongside regional airports. However, other studies highlighted redirections in some other
respects such as employee productivity, homogeneous fleets, non-stop service and branding strategies (Daraban, 2012; Taylor et al., 2013).

A large number of FSAs have implemented features from the LCC business model. They started eliminating hot meals for flights. They have also simplified their fare structure and implemented profit sharing plan for employees (e.g. Delta). Some of the FSAs have introduced their own Low Cost Airlines (Gillen et al., 2004).

Low Cost Carriers have also adopted features from the Full Service Carriers in order to differentiate their products including: Frequent flyer programs (Southwest); hub and spoke network systems (AirTran); in-flight entertainment (Frontier); and multiple aircraft type (JetBlue). As a result the line between Low Cost Carriers and Full Service Carriers has diminished substantially in terms of product offerings. However, LCCs still have a cost advantage over FSA although offering almost same products (Barbot 2004).

A study by Bland (2014) showed that the price is the major advantage for LCCs. Some other studies examined other factors besides price such as booking convenience, in-flight services, schedule, safety consideration, and airline image (Chang et al., 2013; Diggines, 2010; Davison et al., 2010). The consumer decision theory suggests that the price isn’t the single factor upon which consumers base their decisions (Blythe, 2013). There are other attitude and behavioral factors which play a major role in the decision making process of LCC passengers.

There aren’t any more a clear cut business strategies differentiating LCCs and legacy airlines (Lohmann et al., 2013, Jean et al., 2016). Several studies (Francis et al., 2006; Mason et al., 2007; Tsoukalas et al., 2008) showed that business models are converging. According to Tay et al. (2013) airlines are no longer easily categorized as either Low Cost Carriers (LCCs) or Full Service Network Carriers (FSNCs), as airlines are now merging the features of LCCs and FSNCs to expand their target demand and survive increasing competition.

2.4 Air Transport, LCCs and Tourism

Air transport and tourism demand are two intertwined areas with important interdependencies. The tourism industry was a driving force of many developments in air transport as new business models like charter flights emerged. On the other hand air transport encouraged the emergence of new tourism destinations or tourism forms like long haul excursions. Therefore, shaping a clear strategic development of airline policy and air access strategy seems to be necessary for destination development. In addition, a corresponding assessment and understanding of the business models of destinations is inevitable for air service growth.

Air traffic proved to be resilient to global economic, environmental and political crisis. The world annual traffic took an upward trend from 1955 to 2015 with small fluctuations. This gives an indication, that air services can standout and survive global shocks. The figures also show,
that passenger traffic growth was outperforming the GDP growth in the period from 2010-2016 (Airbus, 2016).

There is a close relation between growth of the tourism demand worldwide and the emergence of LCCs. LCCs have made air travel available to all budgets and enabled tourists to reallocate their expenditures and spend more at destinations (Ferrer-Rosell et al., 2017).

A study by Eugenia-Martin et al. (2016) examined the hypothesis of whether low-cost travel savings from tourists’ place of origin are transferred, at least partially, to higher tourism expenditures at the destination. The results showed that LCC travelers make higher tourism expenditures at the destination compared to scheduled-flight tourists. However, if the comparison is made to charter-flight tourists, those savings are not always transferred as additional expenditures at the destination.

2.5 Background about EasyJet

EasyJet is a low-cost European airline, which offers low fares by using operational efficiency on point-to-point routes. Their business model makes travel affordable for a wider range of passengers and drives growth and returns for shareholders. EasyJet has a strong capital base, with market capitalisation of £4 billion and a net cash position of £213 million at 30 September 2016. EasyJet uses a modern Airbus fleet, in addition to the new fuel efficient A320neo aircraft. This provides easyJet with operating and maintenance advantages.

EasyJet’s workforce reached over 10,000 people, including 2,865 pilots and 6,516 cabin crew members as at 30 September 2016. EasyJet uses innovative technological solutions to maintain its cost leadership.

Through its successful digital strategy, it implements customer relationship management techniques based on a sophisticated analysis of customer databases to increase customer loyalty. Consequently, in 2017, 74% of its seats were booked by returning customers. In addition, the carrier recently launched a frequent flyer program “Flight Club” which aims to identify and retain loyal customers with a scheme that makes travel with easyJet even easier.

Its digital leadership is the key differentiation from its competitors. Their award winning application has been downloaded 18.3 million times in 2016, an increase of 30% on last year. 20% of its bookings are accomplished on ApplePay, their mobile application. Passengers are also increasingly using mobile boarding passes, which has increased 63% year-on-year.

Their strategy entails targeting business passengers, growing the number of passengers by 6% to 12.5 million, with September 2016 a record month for easyJet. They attract business passengers by using primary airports in large economic markets, with high frequencies and attractive flight timings (easyJet, 2016).
3. Methodology

Time series forecasting refers to the use of the historical observations of time series to predict the value at a future time. A primary concern of time series analysis is the development of forecasts for future values of the series (Britannica Library, 2007).

Monthly data of passenger traffic of easyJet for the period January 2004 to February 2018 was used for the purpose of analysis. Basic time series analysis was used to predict future values. Each of these time series is an aggregation of three components: (i) Trend, (ii) Seasonal, and (iii) Random. In order to make further investigations into the behavior of the time series data, each time series was decomposed into its three components. Moving averages (MA) and centered moving average (CMA) were used to estimate the trend component. Furthermore the seasonal component was estimated. In order to forecast the trend in the future a regression model was applied. Accuracy of forecasting measures was tested using the Mean Absolute Percentage Error (MAPE).

The linear regression approach mathematically simulates cause and effect relationships. Thus, a linear regression analysis was conducted to show the relationship between the independent variable “total air passengers worldwide” and dependent variable “total passengers easyJet”. Also a correlation analysis between average “crude oil prices” and “total passengers worldwide” and “total passengers of easyJet” was conducted to show whether and how strongly these pairs of variables are related.

4. Results

4.1 Decomposition Results

Table 3 and 4 present the numerical actual and forecasted values of the time series data with the random component.

Table 3: Actual and Forecasted Values of the Time Series Data with the Random Component

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Forecast</th>
<th>e</th>
<th>Year</th>
<th>Actual</th>
<th>Forecast</th>
<th>e</th>
<th>Year</th>
<th>Actual</th>
<th>Forecast</th>
<th>e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-04</td>
<td>1,683,699</td>
<td>1,594,234.09</td>
<td>89464.91</td>
<td>Nov-06</td>
<td>2,554,143</td>
<td>2,472,708.18</td>
<td>81434.82</td>
<td>Sep-09</td>
<td>4,422,021</td>
<td>4,376,316.83</td>
<td>45704.17</td>
</tr>
<tr>
<td>Feb-04</td>
<td>1,864,970</td>
<td>1,721,686.31</td>
<td>143283.69</td>
<td>Dec-06</td>
<td>2,638,279</td>
<td>2,570,543.80</td>
<td>67735.20</td>
<td>Oct-09</td>
<td>4,219,096</td>
<td>4,194,317.87</td>
<td>24778.13</td>
</tr>
<tr>
<td>Mar-04</td>
<td>1,996,790</td>
<td>2,031,901.99</td>
<td>35111.99</td>
<td>Jan-07</td>
<td>2,573,451</td>
<td>2,385,950.04</td>
<td>187500.96</td>
<td>Nov-09</td>
<td>3,351,187</td>
<td>3,308,622.39</td>
<td>42564.61</td>
</tr>
<tr>
<td>Apr-04</td>
<td>1,947,675</td>
<td>2,144,879.30</td>
<td>197204.30</td>
<td>Feb-07</td>
<td>2,646,775</td>
<td>2,565,062.39</td>
<td>81712.61</td>
<td>Dec-09</td>
<td>3,399,305</td>
<td>3,431,447.67</td>
<td>32142.67</td>
</tr>
<tr>
<td>May-04</td>
<td>2,092,709</td>
<td>2,302,450.34</td>
<td>209741.34</td>
<td>Mar-07</td>
<td>3,094,588</td>
<td>3,013,876.87</td>
<td>80711.13</td>
<td>Jan-10</td>
<td>3,142,629</td>
<td>3,177,666.00</td>
<td>35037.00</td>
</tr>
<tr>
<td>Jun-04</td>
<td>2,241,252</td>
<td>2,381,793.80</td>
<td>140541.80</td>
<td>Apr-07</td>
<td>3,133,725</td>
<td>3,167,722.64</td>
<td>33997.64</td>
<td>Feb-10</td>
<td>3,390,523</td>
<td>3,408,438.47</td>
<td>17915.47</td>
</tr>
<tr>
<td>Jul-04</td>
<td>2,413,367</td>
<td>2,606,461.63</td>
<td>193094.63</td>
<td>May-07</td>
<td>3,345,465</td>
<td>3,386,081.26</td>
<td>40616.26</td>
<td>Mar-10</td>
<td>3,964,399</td>
<td>3,995,851.74</td>
<td>31452.74</td>
</tr>
<tr>
<td>Aug-04</td>
<td>2,459,735</td>
<td>2,662,262.53</td>
<td>203527.53</td>
<td>Jun-07</td>
<td>3,440,639</td>
<td>3,488,301.30</td>
<td>47662.30</td>
<td>Apr-10</td>
<td>3,490,599</td>
<td>4,190,565.98</td>
<td>699966.98</td>
</tr>
<tr>
<td>Sep-04</td>
<td>2,355,324</td>
<td>2,507,309.81</td>
<td>151985.81</td>
<td>Jul-07</td>
<td>3,723,004</td>
<td>3,801,951.87</td>
<td>78911.87</td>
<td>May-10</td>
<td>4,258,675</td>
<td>4,469,712.18</td>
<td>211037.18</td>
</tr>
<tr>
<td>Oct-04</td>
<td>2,405,073</td>
<td>2,415,697.71</td>
<td>10624.71</td>
<td>Aug-07</td>
<td>3,706,354</td>
<td>3,869,401.94</td>
<td>163047.94</td>
<td>Jun-10</td>
<td>4,537,959</td>
<td>4,594,808.81</td>
<td>56849.81</td>
</tr>
<tr>
<td>Nov-04</td>
<td>2,120,948</td>
<td>1,915,432.04</td>
<td>205515.96</td>
<td>Sep-07</td>
<td>3,438,261</td>
<td>3,628,714.02</td>
<td>190453.02</td>
<td>Jul-10</td>
<td>5,021,838</td>
<td>4,997,370.11</td>
<td>24467.89</td>
</tr>
<tr>
<td>Dec-04</td>
<td>2,134,787</td>
<td>1,996,607.89</td>
<td>138179.11</td>
<td>Oct-07</td>
<td>3,344,916</td>
<td>3,482,869.81</td>
<td>137953.81</td>
<td>Aug-10</td>
<td>5,203,165</td>
<td>5,075,541.36</td>
<td>127623.64</td>
</tr>
</tbody>
</table>

www.globalbizresearch.org
<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Forecast</th>
<th>e</th>
<th>Year</th>
<th>Actual</th>
<th>Forecast</th>
<th>e</th>
<th>Year</th>
<th>Actual</th>
<th>Forecast</th>
<th>e</th>
<th>Year</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 12</td>
<td>5,860,272</td>
<td>5,794,339.60</td>
<td>65932.40</td>
<td>Aug 14</td>
<td>5,835,145</td>
<td>5,972,938.02</td>
<td>137793.02</td>
<td>Jan 17</td>
<td>4,745,630</td>
<td>5,025,003.22</td>
<td>279373.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug</td>
<td>5,873,948</td>
<td>5,879,634.31</td>
<td>5686.31</td>
<td>Nov 14</td>
<td>4,386,296</td>
<td>4,701,812.75</td>
<td>315516.75</td>
<td>Feb 17</td>
<td>5,337,949</td>
<td>5,376,315.99</td>
<td>38366.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sep</td>
<td>5,451,217</td>
<td>5,497,721.04</td>
<td>46504.04</td>
<td>Dec 14</td>
<td>4,634,977</td>
<td>4,866,287.46</td>
<td>231310.46</td>
<td>Mar 17</td>
<td>6,334,753</td>
<td>6,287,126.46</td>
<td>47626.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct</td>
<td>5,245,201</td>
<td>5,261,489.96</td>
<td>16288.96</td>
<td>Jan 15</td>
<td>4,022,253</td>
<td>4,497,192.59</td>
<td>474939.59</td>
<td>Apr 17</td>
<td>7,116,731</td>
<td>6,577,200.43</td>
<td>539530.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov</td>
<td>4,116,576</td>
<td>4,144,536.60</td>
<td>29760.60</td>
<td>Feb 15</td>
<td>4,491,425</td>
<td>4,814,656.27</td>
<td>322640.27</td>
<td>May 17</td>
<td>7,512,545</td>
<td>6,998,184.33</td>
<td>53460.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec</td>
<td>4,339,836</td>
<td>4,292,355.12</td>
<td>47484.45</td>
<td>Mar 15</td>
<td>5,490,337</td>
<td>5,632,476.54</td>
<td>142139.54</td>
<td>Jun 17</td>
<td>7,720,090</td>
<td>7,176,659.65</td>
<td>543430.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan</td>
<td>3,878,640</td>
<td>3,969,381.95</td>
<td>90741.95</td>
<td>Apr 15</td>
<td>6,006,371</td>
<td>5,895,304.87</td>
<td>111066.13</td>
<td>Jul 17</td>
<td>8,174,606</td>
<td>7,786,763.32</td>
<td>387842.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb</td>
<td>4,112,186</td>
<td>4,251,814.55</td>
<td>139628.55</td>
<td>May 15</td>
<td>6,490,974</td>
<td>6,257,763.71</td>
<td>215210.29</td>
<td>Aug 17</td>
<td>8,219,017</td>
<td>7,889,866.68</td>
<td>329150.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar</td>
<td>4,872,934</td>
<td>4,977,826.62</td>
<td>104892.62</td>
<td>Jun 15</td>
<td>6,559,802</td>
<td>6,438,987.98</td>
<td>120814.02</td>
<td>Sep 17</td>
<td>7,718,714</td>
<td>7,366,728.06</td>
<td>351985.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr</td>
<td>5,253,610</td>
<td>5,213,409.31</td>
<td>40200.69</td>
<td>Jul 15</td>
<td>7,036,470</td>
<td>6,989,793.83</td>
<td>466716.17</td>
<td>Oct 17</td>
<td>7,519,759</td>
<td>7,040,110.12</td>
<td>479648.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>5,609,351</td>
<td>5,553,343.10</td>
<td>56007.90</td>
<td>Aug 15</td>
<td>7,064,931</td>
<td>7,085,773.73</td>
<td>20842.73</td>
<td>Nov 17</td>
<td>5,350,245</td>
<td>5,537,726.96</td>
<td>187481.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun</td>
<td>5,537,275</td>
<td>5,701,316.31</td>
<td>164041.31</td>
<td>Sep 15</td>
<td>6,610,844</td>
<td>6,619,125.25</td>
<td>8281.25</td>
<td>Dec 17</td>
<td>5,884,304</td>
<td>5,727,191.33</td>
<td>157121.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jul</td>
<td>5,976,704</td>
<td>6,192,824.34</td>
<td>216120.34</td>
<td>Oct 15</td>
<td>6,398,796</td>
<td>6,328,662.05</td>
<td>70133.95</td>
<td>Jan 18</td>
<td>5,159,860</td>
<td>5,288,908.54</td>
<td>129048.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug</td>
<td>6,101,344</td>
<td>6,281,680.78</td>
<td>180336.78</td>
<td>Nov 15</td>
<td>4,807,922</td>
<td>4,980,450.82</td>
<td>172528.82</td>
<td>Feb 18</td>
<td>5,552,255</td>
<td>5,657,441.35</td>
<td>105816.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sep</td>
<td>5,714,152</td>
<td>5,871,522.44</td>
<td>157370.44</td>
<td>Dec 15</td>
<td>4,848,258</td>
<td>5,153,255.42</td>
<td>304997.42</td>
<td>Mar 18</td>
<td>6,614,451.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 2 plots the overall time series for the passenger traffic for easyJet for the period January 2004 – February 2018 in addition to the forecasted figures. The plot shows, that the time series have an increasing trend. The peak season for the passenger traffic of easyJet is in August, where a gradual decline afterwards is to be noticed till February, when it takes again an upward movement till August. The trend values have consistently increased over the period 2004 – 2018.

The first step of the forecasting work was to breakdown the time series data into trend, seasonal and random components. This will help to show the overall trend of passenger traffic and furthermore it can indicate seasonality patterns; i.e. during which month passenger traffic is highest. The random component will throw some light on the unpredictability pattern of the data.

A multiplicative model was used and showed more appropriate. This model is used when the magnitude of the seasonal pattern increases as the data values increase, and decreases as the data values decrease. The formula of the Multiplicative Model is as follows:

\[ Y(t) = T(t) \times S(t) \times I(t) \]

Here \( Y(t) \) is the observation and \( T(t) \), \( S(t) \), and \( I(t) \) are respectively the trend, seasonal, and irregular variation at time \( t \).

Multiplicative model is based on the assumption that the three components of a time series are not necessarily independent and they can affect one another (Adhikari et al., 2013).
The following figure (3) shows the results obtained by time series decomposition work. The three components of the time series are shown separately so that their relative behavior can be visualized. According to Adhikari et al. (2013), trend is a long term movement in a time series. Seasonal variations in a time series are fluctuations within a year during the season. Irregular or random variations in a time series are caused by unpredictable influences, which are not regular and also do not repeat in a particular pattern.

The plotting of the decomposition components show, that there is an obvious seasonal pattern in the data, the trend value increased over the period of 2004-2018 and the random component shows considerable fluctuations in its values.

It is natural for the aviation sector to have a dominant seasonal component as the flow of leisure travelling reaches its peak in summer because of the holidays. The tendency for travelling declines from August to February when it again starts to increase gradually in February.
A forecast for the month starting March 2018 to February 2019 based on time series data from January 2004 to February 2018 was conducted using forecasting techniques and calculations. It can be observed (Figure 2 and Table 4 and 5) that the forecasted values closely match the actual values even when the forecast horizon is long (12 months). This clearly shows that the model with trend and multiplicative seasonal components is very effective in forecasting monthly indices during the period.

In order to test the accuracy of forecasting method, mean absolute percentage error (MAPE) was calculated. The mean absolute percentage error (MAPE), also known as mean absolute percentage deviation (MAPD), is a measure of prediction accuracy of a forecasting method in statistics, for example in trend estimation. It usually expresses accuracy as a percentage, and is defined by the formula:

$$\text{MAPE} = \frac{100}{N} \times \sum_{i=1}^{N} \left| \frac{x_i - \hat{x}_i}{x_i} \right|$$

Where \( \{x_i\} \) is the actual observations time series, \( \{\hat{x}_i\} \) is the estimated or forecasted time series and \( N \) is the number of non-missing data points (Hyndman et al., 2014). The MAPE test value was 3.7%. This measure represents the percentage of average absolute error occurred.

4.2 Linear Regression Analysis

The figures of the World Bank related to “Air Passenger Traffic” and “The Passenger Traffic of easyJet” (derived from the annual reports of easyJet) in the period 2004 to 2016 were used for the linear regression analysis (Table 6).

Table 6: Average Annual OPEC Crude Oil Price from 1960 to 2017 (in U.S. Dollars per Barrel), Total Air Passengers and Total Traffic easyJet

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Air passengers (million) *</th>
<th>Easy Jet Total air passengers (million) **</th>
<th>Avr. Crude oil price (U.S dollars)***</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1890</td>
<td>25</td>
<td>36.50</td>
</tr>
<tr>
<td>2005</td>
<td>1970</td>
<td>30</td>
<td>50.59</td>
</tr>
<tr>
<td>2006</td>
<td>2070</td>
<td>33</td>
<td>61.00</td>
</tr>
<tr>
<td>2007</td>
<td>2209</td>
<td>38</td>
<td>69.04</td>
</tr>
<tr>
<td>2008</td>
<td>2208</td>
<td>44</td>
<td>94.10</td>
</tr>
<tr>
<td>2009</td>
<td>2250</td>
<td>46</td>
<td>60.86</td>
</tr>
<tr>
<td>2010</td>
<td>2628</td>
<td>49</td>
<td>77.38</td>
</tr>
<tr>
<td>2011</td>
<td>2790</td>
<td>55</td>
<td>107.46</td>
</tr>
<tr>
<td>2012</td>
<td>2894</td>
<td>59</td>
<td>109.45</td>
</tr>
<tr>
<td>2013</td>
<td>3048</td>
<td>61</td>
<td>105.87</td>
</tr>
<tr>
<td>2014</td>
<td>3227</td>
<td>65</td>
<td>96.29</td>
</tr>
<tr>
<td>2015</td>
<td>3464</td>
<td>69</td>
<td>49.49</td>
</tr>
<tr>
<td>2016</td>
<td>3696</td>
<td>75</td>
<td>52.89</td>
</tr>
</tbody>
</table>


The output of linear regression of variables Total Air Passengers Worldwide and Total Air Passengers easyJet is shown in Table 7.

Table 7: Output Linear Regression Total Air Passengers Worldwide and Total Air Passengers easyJet

<table>
<thead>
<tr>
<th>SUMMARY OUTPUT</th>
<th>Regression Statistics</th>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.979267087</td>
<td>df</td>
</tr>
<tr>
<td>R Square</td>
<td>0.958964028</td>
<td>SS</td>
</tr>
<tr>
<td>Adjusted R</td>
<td>0.955233485</td>
<td>MS</td>
</tr>
<tr>
<td>Square Error</td>
<td>3302277.787</td>
<td>F</td>
</tr>
<tr>
<td>Observations</td>
<td>13</td>
<td>Significance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Regression</td>
<td>1</td>
<td>2.80322E+15</td>
</tr>
<tr>
<td>Residual</td>
<td>11</td>
<td>1.19955E+14</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>2.92318E+15</td>
</tr>
</tbody>
</table>

The output of linear regression of variables Total Air Passengers Worldwide and Total Air Passengers easyJet is shown in Table 7.
Linear Regression: Total Air Passengers Worldwide and Total Air Passengers easyJet

Microsoft Excel 2010 was used to generate tables of output for linear regression analysis. The explanatory variables are shown with their standard errors and statistical significance.

* Determining how well the model fits (Model summary table):

The R shows the correlation between the observed and predicted values of dependent variable. The correlation coefficient is **0.9792** which indicates a strong positive relationship between the two variables.

R-Square – shows the proportion of variance in the dependent variable (Total Air pass. easyJet) which can be explained by the independent variable (Total Air pass. World). The R-square value is **0.9589** which indicates that the independent variable (Total Air pass. World) explains 95% of the variability of the dependent variable (Air pass easyJet).

** Statistical significance: (ANOVA table):

The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data. The table shows that the independent variables statistically significantly predict the dependent variable as $F= 257$, $p < .0005$ (i.e., the regression model is a good fit of the data).

***Parameter estimates (Coefficients table):

The following output is obtained from the Coefficients table:

The Model column shows the predictor variables. Coefficient stands for the values for the regression equation for predicting the dependent variable from the independent variable. The coefficient for (Total Air pass easyJet) is **0.025**. So for every 1% increase in (Total Air pass. World), a 2.5 % increase in (Total Air pass easyJet) is predicted, ceteris paribus (holding all other variables constant).

- t- values and Sig.: These are the t-statistics and their associated p-values used in testing whether a given coefficient is significantly different from zero. As $p is < .05$ it can be deduced that the coefficients are statistically significant, i.e. (Total Air pass. World) can predict the variable (Air pass. easyJet).

4.3 Correlation

Table 6 shows the average crude oil prices from 2005 till 2016. Also “total air passengers worldwide” and “total passenger traffic easyJet” are displayed. This secondary data was used to conduct correlation analysis to test whether there was a relationship between the variables and how strong this relationship is if existed.

**Correlation between variable total air passengers and average fuel prices:** The value of R is 0.2623. Although technically a positive correlation, the relationship between the variables is
weak (i.e. the nearer the value is to zero, the weaker the relationship). The value of $R^2$, the coefficient of determination, is 0.0688. The $p$-Value is 0.386628. The result is not significant at $p < 0.05$.

**Correlation between variable total passengers easyJet and average fuel prices:** The value of $R$ is 0.3772. Although technically a positive correlation, the relationship between the variables is weak. The value of $R^2$, the coefficient of determination, is 0.1423. The $p$-Value is 0.203887. The result is not significant at $p < 0.05$.

5. **Discussion**

The review of the literature showed, that the phenomenon of LCCs is leading the air service market nowadays and is threatening the existence of FSAs. The business model adopted by LCCs consists of lowering ticket prices by charging the passengers for auxiliary services. They also adopt strategies to lower their operational costs like using secondary airports, offering short-haul flights, using e-marketing strategies and omitting legacy costs. The usage of new homogeneous medium sized fleet usually results in lower fuel, maintenance and personnel costs. Higher seat density in aircraft results in lower unit costs for almost all cost categories. In addition, delays can be decreased by using smaller secondary airports. Point-to-point flights without connections maximize turnarounds and focuses on high utilization of aircraft. The “free-seating” principle also contributes to the reduction of operating costs because it encourages passengers to board the plane earlier and additionally reduce delays. Smaller airports usually charge lower fees than larger primary airports and are willing to contribute in the promotion of new routes. Finally, the unit costs are reduced by online selling, and as well by eliminating all forms of free in-flight services such as catering, entertainment during the flight.

The business model adopted by LCCs showed evidences of success for these carriers and made it possible for them to sustain their business and achieve revenues.

The time series forecasting method used based on the secondary data of the passenger traffic of easyJet provided an accurate forecast (MAPE = 3.7%). Hence, this forecasting method can be used to forecast the total passenger traffic at least in the short term. This result can be useful to decision makers of easyJet as it helps them to identify their potentials for growth in the future and also pinpoint seasonal variations as the data showed a significant seasonal pattern. The results also indicate, that easyJet should pay more attention in low seasons, where the traffic is low. This could be accomplished through the increase of marketing efforts and pricing strategies to increase traffic flows. An increasing trend in passenger traffic is shown, which indicates the great potential for easyJet for expansion in the future.

Applying a **linear regression** showed the following: The regression model is a good fit for data as $F = 257, p < .0005$. The coefficient of determination (**R-Square**) is the proportion of
variance in the dependent variable which can be explained by the independent variables. R-square value is 0.958 which shows that the independent variable explains 95% of the variability of the dependent variable. The coefficient value for (Air pass easyJet) is 0.025. Thus, for every 1% increase in “Total Air pass. World”, a 2.5% increase in “Air pass easyJet” is predicted and vice versa (holding all other variables constant).

The correlation analysis showed, that there is a weak relationship between “average crude oil prices” and “air passengers worldwide” and “air passengers easyJet”. This indicates that air traffic isn’t severely influenced by the rise or fall of fuel prices because of fuel hedging agreements. Although the rise of fuel prices, where fuel consumes the majority of operational costs, may affect ticket prices, the analysis showed that this had a little effect on passenger traffic worldwide.

Based on the results of statistical analyses, hypothesis 1 and 2 are accepted and hypothesis 3 is rejected.

IATA forecast (IATA, 2017) indicates that total air passengers worldwide will nearly double to reach 7.8 billion in 2036. This growth requires partnerships and alliances to be strengthened between players in the aviation industry, communities and governments to expand and modernize infrastructure including runways, terminals, and ground access to airports. This expansion in passenger numbers requires innovative solutions to challenges facing air services and air traffic management needs urgent transformations to cut delays, costs and emissions. Growth will also depend on trade liberalizations and visa facilitations.

6. Conclusion

There are some common features among LCCs. Nevertheless, the analysis showed that there is no clear cut Low Cost Carrier business model adopted by all carriers. Although most LCCs strategies include elements like charged service offerings, the use of secondary airports, short-haul point-to-point routes, low distribution costs, high labor utilization, the models diverge considerably in their offering and operating practices. Different industry strategies and business cultures have a considerable impact on their business models.

The emergence of LCCs had major impacts on the air service industry. Some elements supported the rise of LCCs like air liberalization and deregulation of air service industry. Some LCCs copied the business model of Southwest and others adopted combined business strategies.

The rise of the middle class and urbanization was a driving force for the support of LCCs and also their sustainability. It is worth to mention, that the success of LCCs can be referred to their great adaptability to market changes. LCCs have been the catalysts for economic growth in some neglected regions and have put these regions on the map of airline destinations.
Furthermore, it stimulated tourist inflow in some regions that were considered previously out of reach.

FSAs were highly affected by the emergence of LCCs. They lost a huge part of their customer base due to lower price strategies implemented by LCCs. Their ability to lower their prices to compete with LCCs is associated with their ability to reduce their base of high costs to compensate the decline in their yields.

A new model emerged, *the hybrid model* which combines the cost-saving methodologies of a pure Low Cost Carrier with the service, flexibility and route structure of a full-service carrier.

LCCs are trying to gain an additional market share by increasingly flying from main airports to attract customers from traditional scheduled airlines and some LLCs are experiencing connections. This goes parallel with new FSA policies, which consist of unbundling their offers by excluding some services, which used to be included like baggage allowance and meals. Many traditional full-service carriers created new products, restructured and streamlined their processes and reduced costs.

The growth in air service in the future will depend on developing innovative market solutions to gain a solid market share.

**References**


InterVISTAS (2013), “Full Service Airlines versus Low Cost Carriers”, prepared by InterVISTAS for the Istanbul Technical University.


Macário, R.; Viegas, J. and Reis, V. (2008), Impact Of Low Cost Operation In The Development Of Airports And Local Economies, 1st Workshop APDR.


Sabre Holdings (2010), The Evolution of the Airline Business Model.


