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Economic Benefits of Third Runway at Heathrow

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Chapter 1 Introduction

1.1 Background

While the large urban centers of the past were built around railway stations, Bonnefoy&Hansman (2005) argue that the major urban centers of the future will centrearound airports, within a radius of 30 kilometres. Only the future will say if they are right, but one cannot deny the importance that airports have in regional economic development. For several years, economists have demonstrated a positive relationship between public infrastructure investment and the productivity of private sectors of the economy (Barro, 2011; Aschauer, 2009).

Adam & Bevan (2006) even demonstrate that transport infrastructure provides a positive externality to the market sectors, which they describe as being derived from the action-learning process. Moreover, according to some authors (Dumont &Mesplé-Somps, 2010) public investment in transport would stimulate private investment through the complementary effect of the two types of investment. This effect appears to be confirmed in the literature on the regional economic impact of airports.

Robertson (2005) argues that airports can be a stimulating force for a regional economy by providing skilled jobs and attracting investment to the region. Neuwirth et al (2003) demonstrate that the presence of an airport tends to attract businesses in the region and that employment within a 6km radius of the airport would grow between 2 and 5 times faster than in a suburban area of the metropolitan area. The connectivity of airport transport services would influence employment in head offices and stimulate the development of research institutions and the financial sector. In addition to the complementarity of public and private investment, an airport produces a "facilitating" effect that increases access to people and ideas, to capital and

markets (Hansman and Tam, 2012). The Sherbrooke university cluster, which generates research and development activities, in addition to investments made by private sector companies, could greatly benefit from this "facilitating" effect, thus enhancing the regional economic impact on the region

More specifically, Florida et al (2012) demonstrate that airports add significantly to regional economic development in terms of per capita GDP. The order of contribution to regional economic development would be roughly equivalent to that of human capital, which is even greater than the contribution of high-tech firms. Empirically, the positive correlation between GDP and the number of shipments, a measure of air traffic, is confirmed by US historical data.

An airport is certainly not the only type of public infrastructure investment possible for the Region. However, it was unlikely that transportation demand would exceed current supply by 2016. This supply of transportation infrastructure is mainly composed of roads, which relatively isolates the region of large economic centers, despite its geographical proximity. An airport in the region could offer an interesting solution to this problem.

1.2 Problem Statement

When Heathrow Airport was designed in the forties of the twentieth century, it took the scheme preferred by the RAF: three tracks forming a triangle so that there was always one with the proper wind for the operations. Later this one was changed to a double triangle, a star of David, with six parallel lanes two to two; plus a seventh track, which was never built, more or less in the place where now the management wants to build the third.

However, the history of the airport dates back to the late twenties when Fairey set up its own airfield there to test the planes leaving their assembly lines. At that time it was known as the Harmondsworh Airfield, and later as the Great West Airfield, although references such as the Heathrow airfield are sometimes found. In 1944 the British Air Ministry took possession of the airfield with the official idea of making it one for bombers and transports of long reach but with the real one of turning it after the war in the main civil aerodrome of London.

Two decades ago management started talking about building a new track at Heathrow, north of the airport , although it has been changing its location over the years: more to the east, to the west, to the north or to the south and those who are for and against it are distributed almost 50 percent . Some speak of the economic benefit that will bring more airplanes and passengers. Others of the environmental impact they will entail and the fact that it will have to demolish a town and relocate its inhabitants.

One of Heathrow's many designs with the new track, this time located to the east and terminals. Now the third track is back in force, and since Heathrow Airport Holdings (25 percent owned by Spanish construction company Ferrovial), it has shown what the new airport could look like in a few years. The new Heathrow will have two terminal blocks, the east, formed by Terminal 2 and the west by Terminals 5 and 6. The new Heathrow will have two terminal blocks, the east, and formed by Terminal 2 and the west by Terminals 5 and 6.

The images show the new terminal structure: a large Terminal 2 and its satellites in the current central area; the terminal 5 with new satellites and a new Terminal 6 between the current 27R / 09L and the new track. All of them will be connected to each other through an underground passenger and luggage transport system that would allow to connect between flights

between any terminals in 60 minutes. The charging terminals will also be re-wired with greater capacity.

Near the current Terminal 5 will be constructed new hotels and commercial zones to replace those that are in the zone of the new track and terminal. New access to the T5 from the M25 with separate lanes for the vehicles that go to the airport those that circulate to other destinations by her.New access to the T5 from the M25 with separate lanes for the vehicles that go to the airport those that circulate to other destinations by it.

As they point from the airport, the third lane. Of 3,300 meters in length, will allow to reach the 740,000 annual operations (there were about 471,000 in 2014), which would give sufficient capacity until the year 2040 at least. In addition Heathrow will connect with more British cities by rail and will burial part of the M25 under the new track and will build a new connection of this with the terminals.

1.3 Purpose of the Study

The purpose of this study is to explore the economic benefits of constructing third runway at Heathrow. This study also investigates how this project materialises and what is the response of UK government in this regard.

1.4 Research Objectives

- To discuss the importance of airports and runways in a country's economy
- To investigate the economic and other benefits of building the third runway at Heathrow
- To explore the role of British government in this regard

Chapter 2 Literature Review

2.1 Importance of Airport

According to Adler et al (2014) Transport infrastructure has received a lot of attention from economists in recent decades, notably because of the large capital investments that they require. Since the public sector is heavily involved in the financing of airports, specifically in the area of refurbishment, renovation and new construction, it seems appropriate to assess the impact of expenditure in the airport industry beyond the mere stimulus of the initial investment and the related multiplier effect.

The economic impact studies (Allroggen&Malina, 2014; Vasigh et al., 2013)undertaken over the last decade are strongly inspired by the input-output method, which aims to integrate the direct, indirect and induced impacts of a project. With a few differences, direct impacts are defined as the local expenses of visitors arriving by plane, plus the costs incurred in goods and services by the firms located at the airport. Indirect impacts are defined as the flow of dollars generated by the supply of equipment, goods and services attributable to the airport by agents located elsewhere than at the airport. An example of such an impact would be the rental of a hotel room from a tourist who came to stay in the city to visit or elsewhere. Finally, the induced impacts are only the multiplier effect produced by the economic activities generated by direct and indirect impacts.

However, the input-output models often used to study the economic impact of an airport do not dwell on the complementary effects that can radiate from the construction of an airport in a region. For example, Hansman and Tam (2012) discuss the "facilitating" effect that an airport can have on people's access to markets and ideas. A corollary is the spill effect caused by the presence of a university in a region. Indeed, Audretsch et al (2004) analyze the location choices

of new German firms and show that they tend to locate near universities in order to obtain the spill-over effect of the research carried out in addition to having easier access to university graduates.

Transport infrastructure is particularly important in the location decisions of some companies. Neuwirth et al (2003) show that employment increases two to five times faster within a radius of 6 km around the airport than in the suburbs of the metropolitan area outside this area. However, the mere presence of an airport allows better accessibility to different markets and ideas. In the case of firms operating in the innovation sector, such as research and development, the presence of an airport is a major factor in the decisions of firms to locate. Malecki (2007) points to the importance of the proximity of an airport in the choice of the location of research and development activities and of the head office. Similarly, Dunning & Norman (2003) note the importance of access to a nearby airport in the choice of location of multinational firms in Eastern Europe.

It seems logical to postulate (Bolumole et al., 2015) that nearby airport development strengthens and diversify the private investment base in the region. Consequently, an input-output analysis, consisting of aggregating direct, indirect and induced impacts, although a good starting point, would probably not succeed in capturing all the economic impacts associated with the presence of an airport.

When developing an airport, it seems appropriate to approach the airport under two main considerations: the attractiveness the airport will have for airlines and the attractiveness it will have for passengers as proposed by Bonnefoy&Hansman (2005). Notwithstanding the fact that the two categories interact closely together, the relationship between the airport and the airlines

should be analysed first, since it is first and foremost the presence of airlines at an airport that attracts travellers and they are the major contributors to airport revenues.

The literature on the impact of airports is fairly unanimous (Bolumole et al., 2015; Allroggen&Malina, 2014; Vasigh et al., 2013) on the positive effects of airports on economic activity as well as on population growth. Through its increased interaction with other regions, the very structure of the regional economy can change. The city of London is well positioned to take advantage of the "facilitating" effect that would result from airport development in the region. While trade and business travel are more specific to the very nature of the sector in which firms operate in the region, the airport facilitates and stimulates these exchanges. However, the project presents significant challenges. The density of population is relatively low and the city cannot realistically exploit the higher density of cities given the distance between them. However, it may be possible to mitigate this low density by the attractiveness of the airport could have for neighbouring regions.

On the other hand, airports of smaller cities such as Manchester illustrate the importance of introducing a low-cost carrier in the development of a regional airport. In the event that initial demand is deemed insufficient by low-cost carriers (Albalate et al., 2014), it would be appropriate to attempt to negotiate incentive arrangements to propel the development of the airport to the desired level. Assuming that key players wish to develop direct air routes to major markets in the vicinity.

The airport infrastructure should be designed so that the length of the runways is sufficient to accommodate the airlines of the airlines that we want to attract (Allroggen&Malina, 2014). In the long term, the addition of pre-clearance facilities would be conducive to the growth

of roads to the United States, but as we have seen in the case of Quebec, these facilities are not essential to the development of the airport. In addition, incentive arrangements will result in lower aeronautical revenues, which will have to be offset by an organization of terminals and commercial spaces that will maximize non-aeronautical revenues (Baker et al., 2015), including commercial revenues. Although the literature shows that population density increases with air traffic, this population growth could take several years to materialize.

2.2 Attraction of airlines in the region

The distribution of population is one of the factors that airlines consider in their choice of airport. It is not surprising that Levinson (2007) finds a correlation between population density and airport development in a region. Thus, an airport in the region would likely increase the population density of the region, but the magnitude of this increase remains unknown.

Secondly, Kivits et al (2010) said that the infrastructure at the airport is crucial to its ability to accommodate the desired commercial flights. According to Humphreys et al (2006) these infrastructures must include parking spaces, terminals, hangars and adequate access to the road system, to name a few essential components of an airport. However, the most important element in planning an airport for its infrastructure is perhaps the length of its take-off and landing runways. In general, the smaller the device, the less the track needs to be long. A sufficiently large track length will eventually allow the entry of new airlines.

2.3 Entrance of new airlines to the airport

Without exaggeration, the entry of new airlines to the regional airport is crucial to its development, especially if it is a low cost air carrier. Based on the life cycle of an airport as

presented in Bonnefoy&Hansman (2005), this entry is critical in order to increase traffic at the airport in question.

Intuitively, as presented by Odoni& De Neufville (2008) an air carrier using a low-cost model will lower the tariff, offer new destinations and increase the frequency of service, which will stimulate demand. Examples include the average increase in the number of annual flights, Manchester Airport (Mass.) was 6% between 1990 and 1997. Following the entry of Southwest Airlines in 1998, the average annual growth in the number of flights was around 45% between 1998 and 2000 (Francis et al., 2006). Similarly, the number of flights to the Providence airport grew to an average of 35% in the 3 years following the entry of Southwest Airlines (Francis et al., 2006). The entry of a low-cost air carrier changes the business model because it reduces performance per mile travelled but increases traffic. In Fort Lauderdale, as a result of the entry of Southwest Airlines, average revenue per mile travelled fell 22% while traffic increased 32% (Odoni& De Neufville, 2008).

Considering the importance of having a low-cost carrier for the development of an airport, it is understandable that competition between airports is strong to attract them. Francis (2003) suggests that airport administrators see cost as the main factor affecting airport choice by air carriers. However, airport costs represent 12% of the total costs of low-cost carriers, which is not negligible. For example, some airports have come up with financial incentives to attract airlines, such as Frankfurt Hahn, which abolished landing costs for the Boeing 7373 aircraft. A related case that has given rise to a lot of ink is that of the contract ratified between Ryanair and the Belgian airport of Charleroi (Odoni& De Neufville, 2008). The European Commission (EC) initially ruled that the cartel was illegal, considering that the incentives were illegal state aid

according to EU agreements. This decision was subsequently reversed by the Court of First Instance of the European Union.

Graham (2013), however, disputes the assertion that low-cost carriers are primarily influenced by the cost of airports in their choice of home port. According to his study, the main criterion is high demand for low-cost carriers in the airport service area, followed by adequate take-off and landing slots and Aircraft to re-launch in a short time. Keeping the airplanes as much as possible is essential for these carriers. It is not surprising that in the study, Fu et al (2006) find that the two most important factors explaining why low-cost airlines operate at secondary or regional airports rather than at major airports are Re-launching and punctuality allowed by less congestion.

The problem of congestion at major airports is addressed in Zhang & Zhang (2006), which, after estimating congestion costs at the large airports, proposes a price policy that would take congestion into account to reduce these costs. Finally, airport discounts are only 4th in the ranking of factors influencing the choice of airports for low-cost carriers, which contrasts with the perception of airport managers in Francis et al (2003).

Francis et al. (2003) examine the interaction between low-cost air carriers and regional airports, including the impact of contracts awarded to low-cost carriers by regional airports. The authors note that revenues from many regional airports, especially smaller airports, are highly dependent on airport charges and aircraft handling costs. Agreements with low-cost carriers that relate to a reduction in these charges put a heavy strain on revenues from the commercial side. This aspect, when not taken into account during the initial construction of the terminals, implies additional infrastructure costs.

2.4 Interaction between Airport and Travellers

Although airlines contribute significantly to airport revenues due to the various charges they pay, including landing and handling charges, consumers also contribute to revenues through, among other things, parking and purchasing costs made with merchants renting out sales areas in terminals. However, the airport is dependent on airlines to attract travelers to the venue.

Bonnefoy&Hansman (2005) present four major elements determining the attractiveness of travelers to the airport: total travel time, ground access, fares and level of service. Innes &Doucet (2003) attempted to predict people's airport choices in the northern half of New Brunswick, populated by about 250,000 people with low population density in the region. The authors confirm the importance of flight time and the level of service. It appears that travelers are prepared to travel a considerable distance to avail themselves of a direct flight rather than a flight with connection(s).

Another study (Dostaler and Tomberlin, 2010) examined the factors influencing the decision to fly passengers using regional airports in five resource regions of Quebec, also confirmed the importance of flight time, tariff and service. In fact, 32.2% of the respondents said that the flight schedule was not appropriate, while 49% of respondents said they could not use the plane more often to travel to Quebec for this reason. The survey indicates that 90.5% of respondents use the airplane as a means of transportation to save time, which should be contrasted with the fact that nearly 70% of the survey respondents were traveling on business. Predictably, more than half of respondents indicated that price was the most important factor in their decision to use the aircraft more often. These results are consistent with the factors identified in Bonnefoy&Hansman (2005).

2.5 Heathrow Airport Expansion

The current economic situation causes changes that force us to anticipate events, to be proactive. We must seek the improvement always linked to innovation. Heathrow airport's goal is to offer a service oriented to the needs of passengers, airlines, local community and regulators, as it represents a spearhead of the business and a worldwide reference in airports. Its strategic importance is evident. Heathrow has the highest passenger traffic in the world with an influx of 71.9 million annually. During last year they flew to more than 180 destinations in about 90 countries, and from their infrastructures operate 206 airlines. There is no doubt about its importance and influence both for the local community and for the whole of Great Britain.

For this reason we are betting on the expansion of Heathrow. It must be a common goal that ends with a debate that has existed for the last forty years. This is the fastest and most effective option for passengers and the economy of the country and would endorse our bet, since 2003 Heathrow has invested 11 billion pounds to improve its infrastructure.

Adding a third runway to Heathrow Airport is a great opportunity for improvement. It involves investing in growth, providing the hub with greater capacity for the coming years and securing 114,000 local jobs, as well as creating between 70,000 and 150,000 new jobs. In addition, it tries to ratify the presence of Great Britain in the world in front of emerging economies, like Brazil, India or China. The government is betting on a single hub for the country. Only a single centre large enough to attract a large mass of passengers and capable of offering an important variety of direct flights internationally.

The management of Heathrow currently working on three different Heathrow expansion options to include a third runway.In all the management have evaluated the best alternatives for

the passengers and the economy of the local community. The three options would also materialize in a period of 12 to 16 years, while the creation of a new airport would not be realized until more than two decades.

Heathrow's plan to create a third lane at the North-West location - one of the three expansion options proposed by the British hub to the Commission - ranks among the pre-selected options. The Airports Commission extends its final recommendation to the British government - on the project that has the greatest potential for the socio-economic development of the country - in the summer of 2015.

The Airports Commission pre-selected option would allow Heathrow to expand capacity by 54% to 740,000 flights a year, and its passenger figure by 86% to reach 130 million. Also, the population exposed to the noise generated by the airport would be reduced by up to 15%. The economic question is also important. Any of the three variants we handled for Heathrow would cost between 14 and 18 billion pounds, while the creation of a new infrastructure would rise to 70 and 80 billion pounds. In addition, the three proposals include the possibility of adding a fourth track in the future.

The management has also thought about the airport environment reducing the environmental footprint and noise. For this reason, two of the options are located more to the west of the previous one, mitigating the sound sensation, whereas the three include the design of an additional track that offers periods of rest to all those communities that are under the trajectory of the Flights. The three options for Heathrow Airport are:

1. In the northwest: It lies west of the original proposal of 2003 and south of the connection between the M25 and the M4;

2. In the South West: Located on King George VI and Wraysbury;
3. In the north: Located above the towns of Sipson, Harlington and Cranford Cross

The expansion of Heathrow is the preferred choice of most airlines and business groups, who consider it more convenient to bet on a large central airport. The project would provide a 147 billion pound (€207 billion) increase in GDP over the next 60 years and create 70,000 new jobs by 2050, according to the Commission's report. But it will have, however, a powerful political opposition, centred mainly on environmental problems. The expansion, with a cost of 17 billion pounds (24 billion Euros), would mean 250,000 more flights a year and would involve the demolition of 783 homes in neighbourhoods near the airport. Conservative heavyweights including Defence Minister Philip Hammond and London Mayor Boris Johnson, whose constituencies are close to the airport, are head-on. The impact in London, the environmental cost, the challenge to human rights, would be so great that I do not think it can be realized," Johnson said of the project. The prime minister himself would have to swallow his words after dropping in 2010 - "without conditions, without buts" - a third runway at Heathrow.

But the recommended plan, according to the report, is a fundamentally different proposition from previous proposals to expand Heathrow. The track has moved further west with the aim of reducing the noise impact in neighbouring communities and important investments are contemplated to soundproof homes and compensate the affected communities. The Commission recommends that enlargement be carried out together with a "major package" to mitigate its impact on local communities and the environment. The measures include the ban on night flights, noise limitation commitments and air pollution, and the Government's promise that there will be no fourth lane in the future.

According to the Commission, Gatwick's proposal is "plausible" but "would hardly provide the type of capacity most urgently needed: long-haul destinations with emerging markets". If Heathrow does not expand, it warns, there is a risk of worsening the competitiveness of British aviation over the continental one.

Several environmental groups have already indicated that they will make a strong campaign to prevent this third runway at Heathrow. It is now up to the Government to decide whether to follow the recommendation of the commission, whose jobs cost £ 20m (£ 28m), and which to decide between the two options. It is expected to do so before the end of this year.

2.6 UK Government's Policy for Heathrow expansion

After a long debate, Heathrow's expansion has taken a new turn in David Cameroon's era (Hayden, 2014) and the British government has postponed its final decision until summer. The UK Airports Commission recommended in July the construction of a third runway at the London airport as the best option to cater for the increase in air traffic in the south-east of England. Its approval was almost done. However, afterwards, Premier David Cameron claimed that more environmental assessments have to be made. The real reasons are actually different and political (O'Doherty, 2015). Actually, Cameron did not want to confront Tory candidate ZacGoldsmith , who is running for a winning horse and has threatened to step down if the extension plans went ahead.

According to Hayden (2014) Ferrovial, therefore, had no choice but to follow him is not waiting. With 25% of the capital, the company of Rafael delPino is the first shareholder of Heathrow Airport Holdings, formerly known as BAA. Construction of the third track is key as the UK is now the first market for the group - ahead of Spain - representing 42% of sales.

According to Patrick Creuset, an analyst at Goldman Sachs, the deal was a possible catalyst for its listing.

O'Doherty (2015) said that the big problem, however, is to avoid collapse. Its two tracks operate at 99% of its capacity, compared to 71% of Paris CDG (four tracks), 66% of Main Frankfurt (three), 62% of Amsterdam Schipol (five) or 54% of Adolfo Suárez Madrid-Barajas (four). This has caused the number of destinations to fall from 227 in 1990 to the current 184. In the same period, Frankfurt, Paris and Amsterdam have increased their offers and are able to offer new slots to emerging economies. Therefore, if the British government does not adopt solutions, airlines could start using other European hubs, making London second- rate capital (O'Doherty, 2015).

The UK airport commission concluded (Griggs & Howarth, 2013)in summer that a third runway will allow the country to connect with 40 new destinations around the world. It was the Executive who created this commission to advise you on airport expansion. But after three years of research that has cost the taxpayer 20 million pounds ($28 million), Cameron said he needs more time.Griggs & Howarth(2013) said that Tony Blair and Gordon Brown had the same problem in their day. In response to the economic question only, the impact on GDP is estimated at 147,000 million pounds (206.731 million Euros), compared to 89.000 million pounds (125.163 million Euros) would contribute in 2050 Gatwick, the by choice, that by the way, Cameron has put back on the table.

Taking into account the economic, the impact on GDP is estimated at 206,731 million Euros compared to the 125,163 million that would contribute in 2050 Gatwick. However, the environmental consequences and the 700 houses that should be destroyed make this an intense

debate that divides both the conservative and the labour forces. After all, the five affected districts are among those who often change hands in the general election. John Longworth, director general of the British Chamber of Commerce has called it a "coward" to lengthen decision-making until summer (Osborne, 2013). The Confederation of British Industry also supports the Heathrow expansion. However, IAG, the holding company of British Airways and Iberia and the main user of the London airport, was surprised to leave the campaign for the third track, saying it did not want to pay more to use the aerodrome to finance 17.6 billion pounds (25 billion Euros) that would cost the new facilities. According to calculations by its CEO, Willie Walsh, the cost built into each round-trip ticket at Heathrow would rise from 40 to 80 pounds to cover the return on investment in the new facility.

Nevertheless, finally the government of Theresa May has given its approval for the construction of a third runway at London Heathrow airport rather than a second runway at Gatwick. According to Griggs & Howarth (2017) the work will not begin until three or four years, after inter alia the passage of the project estimated at 16.5 billion pounds before the Parliament. Half a century after the first expansion of what became the first European airport, on October 25, 2016, the government chose the solution of a third runway at Heathrow. The main airport in London, which is used at 98% of its capacity (75 million passengers in 2015), will eventually be able to accommodate 135 million passengers out of a total of 740,000 flights per year (in about ten years if all goes well) 260,000 more than today) (Griggs & Howarth, 2017).

According to the UK Transport Ministry, the expected benefits are around £61 billion for the economy in general over the next 14 years, with 77,000 local jobs created by 2050 (Osborne, 2013). Heathrow said that the expansion will open more direct routes within the UK and launch up to 40 new international routes to cities like Wuhan in China, Osaka in Japan or Quito in

Ecuador. The platform already hosts 70% of the country's long-haul traffic - and of course all members of Oneworld, SkyTeam and Star Alliance for whom connections are essential.

A public consultation will now be organized, with the government then making a final decision that will be presented to Parliament , probably in the winter of 2017-2018. According to the Airports Commission, the work should start in 2020 or 2021, and be completed by 2025 at the earliest - depending on the number of appeals lodged in court. Harmondsworth, a village north of the present facilities, must be half-shaven, and that of Longford will disappear altogether; a total of 750 properties will be destroyed after being bought 25% above their market value.

Trade unions and employers' organizations are generally in favor of the project, as has the Airports Commission, which recommended this solution last year. The first disappointed is obviously the London-Gatwick airport, which had proposed to build a second faster and for less expensive track. Opponents of the third runway at Heathrow are initially within the government, for example with former Mayor of London and Foreign Affairs Minister Boris Johnson or Secretary of Education Justine Geening).Griggs & Howarth(2017) is of the opinion that the current mayor of the capital, Sadiq Kahn, is of the opinion that the pollution around Heathrow already affects more people than around the airports of Paris, Frankfurt, Amsterdam, Munich and Madrid combined and emphasises that the city will probably have to invest 15 billion pounds just to improve access to Heathrow.

Chapter 3 Research Methodology

3.1 Introduction

The methodology can be defined as the study of the proper use of research methods and techniques. The methods and techniques used in a given research must be the most able to account for the subject under study and to lead the researcher towards the goals in terms of the outcome of work. It is unnecessary to state that this must be the subject of strong justifications and arguments on the part of the researcher: why choose a particular method, techniques and instruments (Silverman, 2016). This section of dissertation identifies and discusses various methodological steps of this proposed dissertation regarding economic benefits of third runway at Heathrow.

3.2 Research Approach

The research approach of this proposed study is qualitative research approach. This approach seeks to comprehend the perspective and actions of people involved or related to studies phenomenon, this approach provide a critical explanation of various factors that shapes and affect that phenomenon, for instance economic impact of the runway in this study. Qualitative research approach enables researchers to understand studies phenomena from documents, actions and discourses. It leads the researcher explore how individuals interpret and rationalise actions and words, in addition to other facets related to that phenomenon (Taylor et al., 2015).

3.3 Rationale of Qualitative Approach

Evidence based in several cases is considered more solid and convincing; because the intention in multiple case studies is matching the results of individual cases and this add validity to the theory proposed. In fact, each case must be a particular purpose; hence the choice of these

is not made according to but by statistical sampling criteria for theoretical reasons, seeking the set case that is representative of the phenomenon which will be analyzed.

According to Langley & Royer (2006), the study of multiple cases involves logic to draw similarities or differences between cases and each case may be the least partially described, because necessarily all cases must be conducted exactly the same way, some cases may include specific objectives and conducted with less intensity than others.

In this sense, the use of the case study strategy as research methodology has great potential in explaining of contemporary phenomena located in its real environment (Yin, 2013). The transformation of markets is marked by constant change in the field of the company. As a result of the rapid transformation process, the theories generated to explain market behavior and business results easily lose their effect, so continuously they must be verified before reality and, if adjusted or replaced in order to incorporate the detected anomalies (Hamel, 2013).

The rational for using qualitative approach for this proposed study is that qualitative research is particularly suited to the topic of research study because it allows for a broader understanding of economic benefits of airports in general and Heathrow's third runway in particular. This study also requires humanistic dispositions, curiosity, imagination and creativity, but also a sense of logic, the ability to recognise the diversity or regularity of a phenomenon (Marshall &Rossman, 2014). Hence qualitative approach is more suitable for this proposed study as compare to quantitative approach.

3.4 Research Method

This dissertation uses inductive research method; this method is an integral part of qualitative approach. Inductive research method provides the attempting generalisations from particular cases (Marshall &Rossman, 2014). This method enable researcher to observe precise

characteristics on one or more individuals (objects) of a class and try to demonstrate the possibility of generalising these characteristics to the whole of the class considered. It is the succession of observation, analysis, interpretation and generalisation. It is widely used in the social sciences and human resource studies (Silverman, 2016).

3.5 Research Design

This dissertation utilises case study research design to critically review the benefits of third runway at Heathrow airport. The biggest strength of case study design is that it enables the researcher to analyse a phenomena in depth in its context. The application of this qualitative method is also provision of a scientific rigour and standards which makes it as significant as a quantitative study (Yin, 2013). The case study is research design which consists of investigating a non-randomly selected event, phenomenon, individuals or group, geographical unit (such as Heathrow in this case), economic unit of business segment (such as airports in this study).

The research strategy in this dissertation is to critically review secondary data and to analyse it for the economic benefits of third runway at Heathrow airport. Secondary data in this research study comprises of contemporary scholarly studies, book, authentic websites and official reports on the benefits of third runway at Heathrow (London).

3.6 Rationale of Using Case Study Method

The core rationale for choosing the case study design for this proposed study is that this design provides distinct advantage to the researcher for making a more focused and deeper exploration in the selected unit of study and understands the unsuspected factors to measure phenomena. The case study design, due to its inductive character has becomes a very useful tool

in studies for analysing ground realities neglected by quantitative studies or partially explained in the theories (Thomas, 2015).

Though, the case study has been criticised for the internal external validity of the findings results, since it relies on the data which does not represent the complete reality of the case. The case study from this perspective at times gives too much leverage to the researcher which can generate and element of biasing in the findings. Though, no other design is completely free of such concerns. Besides, the case study is a rigorous design and its validity is well established (Stake, 2013).

Case study methodology is particularly appropriate for certain types of problems (Gummesson, 2012) where research and theory are in their preliminary stages and delicate practical problems where experiences and participants are important and the context of the situation are critical. Case studies can be used to document the experiences that take out in companies and allow explanations of rich and compelling results based on data and existing documentation, to thereby achieve what is defined as rigour, which is equivalent to convincing and well-founded evidence. There are three reasons why research through case studies is a feasible research mode in Business Economics (Carlson et al., 2005).

First, because the researcher can study the objective phenomenon or company or in its natural state, learn from the situation and generate theories from all the cases found. Second, the case method allows the researcher to respond to how and to why that is, understanding the nature and complexity of the processes that take place. Finally, the case study is an appropriate way to investigate a topic in which they have developed above little or no study.

3.7 Modalities of case studies

Case studies can be classified using different criteria. Considering the fundamental objective pursued Stake identifies three ways:

1. Intrinsic case study: its basic purpose is to achieve greater compression of the case itself. The final product is a report basically descriptive;
2. The instrumental case study: its purpose is to look for clarity on a topic or theoretical aspect (the serious case secondary). The case is the instrument for achieving other investigatory purposes (Example: in the former case the problem in the classroom interested why this problem occurs in the classroom);
3. The collective case study: the focus is on investigating a phenomenon, population or general condition from the intensive study of several cases. The investigator chooses several cases of extreme situations the context of object of study. By maximizing their differences, is to surface the dimensions of the problem clearly. This type of selection is called multiple: it is looking very different cases in its analysis but to least initially relevant

3.8 Data Collection

Secondary data on the case study of Heathrow third runway is gathered through a systematic search of online data sources such as search engines and databases. This systematic literature enables the researcher to gather most relevant and credible data in large quantity to answer the research question. Systematic data (literature) search is defined as a structured and methodical inspection for relevant materials, to the research question across various data sources such as databases etc.

3.9 Ethical Consideration

This qualitative study critically reviews the effectiveness of economic benefits of third runway at Heathrow which may generate few ethical issues at the time of data analysis and its interpretation to generate results (Yin, 2013). Researcher, hence, is required to address these issues such as validity and reliability of data, transparency and authenticity of the results. To address these ethical issues researcher is required to make some critical ethical consideration such require transparency and flexibility. In this research, each and every source of data is dully cited and a detail list of references is provided using Harvard style.

Chapter 4 Discussion

In its report of over 300 pages, which took the period of 3 years, published on 1st July 2015, the Airports Commission says that support for the addition of a third runway at the congested London airports was decided so unanimous, although two other "finalist" solutions (a second runway at Gatwick and the lengthening of the Northern runway at Heathrow) are considered "credible". The increase in air traffic between now and 2030 will be best handled by the creation of a third runway at Heathrow, northeast of the existing ones (Burghouwt et al., 2014).

The advantages of building this new runway at the UK's busiest airport (and the world's third-largest airport) are "significantly higher", according to the Commission's opinion. The ruling, which includes a number of limitations to the recommended draft, is not binding. But his strength leaves little room for the government, which must make the decision "as fast as possible," according to Howard Davis, chairman of the Commission (Cairns, 2016), if he does not want to project the image that does not want to take the necessary steps to maintain the position of the country as a well-connected and open economy.

The expansion of Heathrow faces opposition from environmental groups, neighbours and politicians, who believe that it will harm the environment. The decision to extend Heathrow, located in an urbanised area, also divides the government, so the prime minister will allow critics - such as Foreign Minister Boris Johnson - to voice their opposition, with their permission and for a time limited. In the face of criticism from environmental groups about the environmental impact of the Heathrow expansion (Nulman, 2015), the commission says measures should be taken, such as a ban on the use of lights on aircraft at night - from 23.30 to 06.00 - and a tax to

finance insulating materials to be placed in homes, schools and community centers near the airport.

Faced with the nuisance caused by an expansion in an overcrowded English capital and to deal with a larger influx of passengers and freight traffic, the idea of creating a new airport, the real gateway to the 21st millennium for England, has made its way in recent years. The mayor of London, Boris Johnson, first drew an airport project on the Thames estuary on Sheppey Island, now renamed Boris Island. This was followed by a project by the famous architect Norman Foster, to whom we owe the dome of the Reichstag or the Gherkin, the tower of London in the form of pickle, Grain Island, still in the Thames estuary and a proposal from the Gensler architects' office (Nulman, 2015). The problem was that all these projects are located in sensitive natural areas or requires expropriations and the shifting of offshore wind farms.

It is on this difference that wants to bet the latest project presented at the end of last year. This time, it was an engineering firm specialized in the maritime sector that started on the issue. Beckett-Rankine proposes to use a 17-by-10-mile sandy area three kilometres off Deal at the north-eastern tip of Kent 15 kilometres from Dover. Facing Calais, this airport consists of four floating trails, a terminal, A four kilometre road and rail submarine tunnel could run 24 hours a day by 2025 and accommodate 150 million passengers each year. The advantage of this project is there is no noise pollution (Wolfe et al., 2017) because planes would arrive on the sea, no environmental problems because it is not a protected zone, no expropriation or travel Wind turbines, and a 40-minute high-speed link to London.

But to build a new airport would cost more than 40 billion euros. Expanding Heathrow or Stansted would cost between 16 and 23 billion euros (Coelho&Dellepiane, 2016). Elected

officials, ecologists and residents mobilize in Kent against a possible airport in the Thames estuary. It remains to be seen what will be the impacts for the Côte d'Opale of such a project: proximity to an international airport two hours away (at the same time as that of Brussels), economic spin-offs or noise nuisance and environmental issues (Wolfe et al., 2017)related to the over-flight of 100 aircraft daily.

Thus, the findings and analysis of the available literature says that constructing a third runway at Heathrow has more economic benefits than its ecological and environmental disadvantages. The best response is to expand Heathrow's capacity with a new runway in the northwest. Heathrow is better placed to facilitate the type of capacity that is urgently required, long-haul destinations to new markets. It creates the best benefits for business travellers and for the economy in general. According to the Commission (Cairns, 2016), although a second runway in Gatwick was a "credible" option, but it was considered that this airport is less capable of servicing long distance destinations and would also create lower economic growth (Burghouwt et al., 2014). To build the new runway, nearly 800 homes will have to be demolished, while roads and rail services will be altered to facilitate transport, at a cost estimated at 5,000 million pounds (7 billion euros). The decision of building a third runway is also supported by the employers and the low-cost airline such as EasyJet but it causes doubts at IAG and Ryanair - and the fury of the mayor of London.

The budget for the third runway in London-Heathrow is estimated at close to EUR 25 billion, but the Commission estimates that it will have a financial impact on the UK economy of more than EUR 200 billion in 60 years, creating about 70,000 jobs by 2050 - and will open 40 new lines (Cairns, 2016), including a dozen on the long-haul. A concession is proposed to the residents of Heathrow by the Commission: a curfew between 11.30 pm and 6 am should partially

offset the increase in noise pollution (the first flights are at 4:45 am at the moment)(Wolfe et al., 2017). The choice of the Commission was welcomed by the Confederation of British Industries (CBI), which wants to start work before 2020.

The creation of a third runway at Heathrow Airport will be an injection for the local economy and a joy for Ferrovial, the main shareholder of the aerodrome manager. For customers, more airlines will be accommodated in a facility on the verge of collapse, a massive arrival that will lead to a decrease in fares to and from the London base. According toSmith (2016), in 2030 the cost of a return ticket could be up to 335 euros lower than at present. A drop promoted by the increase in competition between companies that has also warned Easyjet, although in the segment of the short radio is expected a minor impact. With the right infrastructure for the efficient model, the airlines can plan to operate from Heathrow in addition to the existing London bases, providing new routes and lower fares for customers. With the help of this new track, Heathrow will reach more than 40 new destinations. Thus, the inclusion of new destinations will be another benefit for travellers at the London airport. With the help of the third track, one can reach 12 destinations not served today and up to 30 accessible through a scale. The list includes Quito (Ecuador), Nanjing (China) and Durban (South Africa). However, the expansion does not only affect transoceanic flights. Regional routes will double, from eight to 16 British airports directly connected with Heathrow.

In addition, the creation of a new track will entail a reduction of the delays to have more space to land and take off. The reason it has so many delays in its operations is that its great European connection partners, such as Frankfurt and Amsterdam, operate with four and five tracks respectively. However, the third route would not be sufficient to face airports such as

Dubai or Istanbul which grow as links between Europe, Asia and America. Instead of arguing for the third clue, one should already think about the fourth.

London Heathrow says it can expand the airport with 25,000 more flights per year, because of the possible new runway. Heathrow will begin additional service in 2021, waiting for the possible opening of the third runway in 2025. This would provide an incentive of 1.5 million pounds for the UK economy, according to the airport. Growth could be achieved by increasing the limit of 480,000 flights annually by five percent, which is realized according to the airport may have become without environmental impact, operational resilience and the customer experience. Separation of the arriving aircraft by the time instead of the distance may also help to add more flight movements. Heathrow says the new capacity can be reserved for 21 more regional flights and short-haul flights per day, along with 13 long-haul.

Conclusion

After decades of debate over the advisability of building a third runway and sixth terminal at Heathrow, the British government has decided to support this initiative as a result of the Brexit referendum. On the one hand, the project can serve as an antidote to the slowdown of other investments in the United Kingdom by the uncertainty created after the Brexit. On the other hand, expanding the airport will serve to open routes to new markets beyond the EU, offsetting the potential loss of exchanges with European partners. These factors may have tipped the balance in favour of Heathrow over other proposals to increase airport capacity in England, such as the Gatwick expansion. Once the investment, which could be completed in 2030, the number of flights at Heathrow (which now runs almost to capacity) will jump from 480,000 to 740,000 each year.

However, Heathrow Airport Holdings, which has Ferrovial as its main shareholder with 25% of the capital, will have to wait for the British Parliament to ratify the decision next year. Members of the Conservative Party oppose the project because of its impact on noise and environmental pollution west of London, which may hamper this parliamentary process. Before the vote in the Commons, the project will also be submitted to a public consultation, which will be rejected by groups of residents affected by the enlargement. The government is going to require Heathrow to spend 2.6 billion pounds to compensate the neighbours whose houses will have to be demolished and to fund the sound insulation of homes that are close to the new runway.

Most analysts believe that the Heathrow extension is good for the British economy as well as for the Spanish group Ferrovial, in securing the future of the London airport, in which it participates since 2006. Although Heathrow has to finance the project with its own means, the

legal framework of British airports almost automatically recognises the increase in the value of regulated assets and allows tariff increases to make them profitable. In the medium term, this can boost Heathrow's profits and dividends (it now delivers 300 million pounds per year). However, these possible rate hikes will hit IAG, the holding company of British Airways and Iberia and the main user of Heathrow. This group has warned that it will fight against price increases at the airport and has called for the cost of the project to be revised downwards.

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