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Limits to air travel growth: The case of infrequent flyers

Anne Graham [a, *], David Metz [b]

[a] University of Westminster, 35 Marylebone Road, London NW1 5LS, UK
[b] University College London, Gower Street, London WC1E 6BT, UK

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ABSTRACT

Most air travel forecasts predict a long-term rise in demand, with limited consideration of any limits to growth. However for any given population there will be those who have not flown recently ('infrequent flyers'), as well as non-flyers, and little is known about these and whether they are likely to fly in the future. The aim of this paper is to analyse the characteristics of these groups and the reasons for their travel habits, using the UK as a case study. The findings show that infrequent flyers make up a heterogeneous consumer group whose non-flying is influenced more by budget constraints and personal circumstances than specific aviation factors. Comparisons with Belgian, German and Dutch infrequent flyers indicate some similarities, although there are differences in the relative importance of the reasons for not flying. The findings have implications for the aviation industry and regulators, and policy areas related to consumers and climate change.

1. Introduction

Forecasts of international air travel project substantial growth. For instance, Boeing (2015) is predicting an average annual growth rate in passenger numbers of 4.0% until 2034. After many years of relatively steady growth, most forecasts assume that past traffic patterns and the relationship with key factors, such as economic growth, can be extrapolated into the future. There are, however, considerations that raise questions about the validity of this conventional wisdom and the implicit assumption that attitudes and behaviour do not change except when driven by these factors. This could have major implications for critical issues such as airport congestion and capacity, and policy areas related to consumer and climate change.

Air travel growth can occur when existing passengers fly more often and/or when new passengers travel for the first time. It is usually assumed that in developed economies growth will predominately come from existing passengers who desire to travel more, whereas in emerging economies growth arises predominantly from new passengers, as the result of growing incomes and greater accessibility to air transport. For this reason the limited research concerning limits to air travel growth has focused primarily on considering the amount of travel undertaken by current regular flyers in the future, particularly in relation to concepts such as market maturity and saturation. Little attention has been given to people who are presently not flying or flying infrequently, the factors that influence these habits, and whether such people will fly more regularly in time to come.

Any group of infrequent flyers – defined as those who did not fly in any twelve-month period - is certain to be heterogeneous. Some people have never flown; some have flown rarely or occasionally; others will regularly take annual holidays by air but may have missed a year for a particular reason such as illness; and for some the interval between annual holiday trips on occasions will be greater than 12 months. Some current infrequent flyers may have flown regularly in an earlier phase of life. Journey purpose is bound to have a major impact since people who travel on business are rarely infrequent flyers.

There are many factors influencing the decision to not fly. These are likely to include the cost (of both the air travel itself and the whole trip) in relation to income; anxieties about safety and security of air travel; consumer needs; inconvenience of air travel compared to other modes and the influence of disruptions; accessibility issues; concerns about the environmental impact of aviation; airport specific factors; and attitudes towards travel generally. A further issue to consider is the level of knowledge that consumers have concerning air travel and whether this has an influence over flying decisions.

Therefore the aim of this paper is to analyse the characteristics

* Corresponding author.
E-mail addresses: grahama@westminster.ac.uk (A. Graham), david.metz@ucl.ac.uk (D. Metz).

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and attitudes of infrequent flyers using recent UK survey findings. The following three objectives have been formulated to achieve this aim:

1. To examine the main characteristics of UK infrequent flyers;
2. To assess the main factors affecting decisions not to travel by air by UK infrequent flyers;
3. To explore possible future air travel patterns of current UK infrequent flyers.

In order to assess the uniqueness of the UK case, some comparative analysis has also been undertaken with Belgian, German and Dutch infrequent flyer data.

In the next section a discussion is provided of the key issues related to limits to air travel growth to provide the context for this research. Section 3 describes the scope of the study and data sources. The next two sections present the findings, firstly for the UK and then for the comparator European countries. Section 6 discusses these findings and then the final section concludes.

2. Factors that may limit growth of air travel

There is only limited research related to limits to air travel demand and most of this is linked to concepts such as market maturity and saturation. The basis for this is that the growth in demand for products and services generally can be characterised by three lifecycle phases: low growth following initial introduction with limited consumer awareness and supply; followed by rapid growth as the product achieves greater market awareness and supply expands to fill the new market; and finally slower growth once the product has become established and the market matures and then eventually approaches saturation. It is usual for the rate of growth during the rapid growth phase of the lifecycle to be faster than the rate of growth of the economy as a whole, a situation which cannot persist indefinitely, and hence a transition to slower growth is inevitable.

Thus, in relation to air transport and in very simplistic terms, market maturity is usually characterised by declining growth rates of air travel whereas saturation can be considered to exist if there is no further growth. Graham (2000) suggested a theoretical five stage model of maturity and saturation using income elasticities, with stage 4 (full maturity) when the elasticity is 1, and stage 5 (saturation) when the elasticity value is 0. Vedantham and Oppenheimer (1998) outlined a four stage model, namely latent demand (high growth rates), continual expansion (high growth rates), modal shifts (where aviation is the most efficient means of transport for consumers) and eventual maturity (when low growth rates appear). With their base-demand forecasts, they predicted that maturity would be reached by 2010 for industrial economies, 2030 for newly industrialized economies, 2040 (post-communist economies), 2050 (rapidly developing economies) and 2060 (slowly developing economies).

Clearly the propensity to fly varies with the market, depending on a variety of factors such as income and economic health, demographic changes, geographical features and competition. The International Air Transport Association (IATA, 2014) found that in 2013 the average air trips per passenger per year was 1.48 for those with high income, 0.29 for middle-income passengers but only 0.04 for those with low-income. For the same year Airbus (2014) estimated that the equivalent figure for passengers originating in perspective regions ranged from 1.59 in North America, 0.99 in Europe, 0.38 (Middle East), 0.36 (Latin America and the Caribbean), 0.25 (CIS), 0.24 (Asia/Pacific) and only 0.06 in Africa. By 2033 it forecast that the relative ranking of the regions would remain the same but as the result of more flying (assumed to be primarily in developed regions such as North America and Europe) combined with a larger proportion of new flying population (assumed to be in more emerging regions) these average figures were estimated to grow to 2.14 in North America, 1.87 in Europe and in the range of 0.6–1.0 for all the other regions except Africa (which was still expected to have a lower than average value of 0.13).

Propensity to fly will not increase indefinitely but will taper off as the market reaches maturity and approaches saturation. Morphet and Bottini (2014) assumed that market saturation will occur with 2–2.5 trips per capita for non-isolated markets, which were defined as countries where alternative transport modes are available. For isolated markets, for example small islands, where other modes of transport are not available or competitive, or where the market is artificially boosted by connectivity provided by a major hub, more than twice this value was assumed to represent saturation. Specifically for the US, analysis undertaken by Federal Aviation Administration (FAA) staff suggested that the US domestic market for air travel was nearing saturation, which was expected at 2.4 trips per capita compared with the 2010 average of 2.2 (Murphy and Wells, 2010). However, to date, there is limited empirical evidence to support such ideas.

The values of propensity to fly depend on two factors, namely the average number of trips and the proportion of the population that flies. As maturity is reached, the rate of increase of both these factors will slow. However, in practice there will always be sectors of the population who will never travel by air for a number of reasons such as family or work circumstances, poor health/mobility or just a lack of interest. Therefore, there is likely to be a maximum proportion of the population who will travel, although in absolute terms the number could vary because of population changes. Clearly this is an issue most related to 'discretionary' leisure travel rather than 'non-discretionary' business travel, even though it is debatable whether some types of leisure travel (notably visiting friends and relative (VFR)are totally discretionary.

Way back in the 1990s in relation to US citizens, James (1993) observed how the percentage of consumers who had flown had risen from one-half to two-thirds in the 1970s but had been constant in the 70–75% range since 1984. He argued that the 75% limit might be about the most to be expected. More generally Graham (1995) suggested that the maximum potential market, even in the wealthiest countries, was unlikely to exceed around 80% of the population. However the rare empirical evidence that exists regarding those who are not flying in the population usually concerns those who have not flown for only a certain period of time, typically one year. A key question is what proportion of these flew previous to this, and importantly what proportion is likely to fly in the future.

In respect of the UK market, in spite of a popular belief that people are travelling more and that there has been an increase in mobilities associated with VFR travel, because of more people living, working and studying abroad, evidence from the National Travel Survey for England (NTS) shows a relatively stable situation (at least for the last few years) in terms of the number of international round air trips taken (Fig. 1). Therefore it is difficult to predict where we stand at present regarding any limits to air travel demand. Fifteen years ago Graham (2000) concluded that the UK air international leisure travel market was only at the early stages of maturity although the overall leisure travel market seemed to be much nearer to full maturity. The Civil Aviation Authority (CAA, 2005) also considered maturity related to the UK market and observed that, although there was some evidence that certain income elasticities had declined over time, full maturity was still some way off. Later on Graham (2006) discussed the potential impact of the rise of the low cost carriers (LCCs), noting a lack of evidence that these were appealing to the less wealthy parts of the