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## Socio-economic and demographic factors that contribute to the growth of the civil aviation industry

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### Abstract

The civil aviation industry has captured the world's share both in terms of operations and markets. The International Civil Aviation Organisation (ICAO) reported an increase of 6.3 percent in passenger traffic to 3.7billion in 2016 based on recorded departures globally. This paper is an effort to understand the driving force for the civil aviation sector based on demand. As per published reports, the trends show the continued growth in the sector even with the inclusion of production challenges in order to meet global market demand. Though the sector is heavily reliant on a variety of challenges and factors, the industry has established itself as the most advanced and lucrative industry that continues to 'PULL' the associated industries. This paper identifies and establishes the 'push' and 'pull' factors under social, demographic and economic factors and how they exercise significant control making the ever-growing industry RESILIENT to changing geo-economic and political landscapes.

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## 1. Introduction

Over the last few decades, civil aviation sector demand has continued to grow. A recent ICAO release in January 2017 reported that there were 35 million departures globally in 2016 with global traffic expressed as revenue passenger-kilometres or RPKs accounting to 7,015 billion [1]. The Air Transport Bureau reported +7.6 percent year-on-year growth between 2015–16 (Fig. 1) confirming the continued growth and impressive expansion of the sector in terms of RPK [2].

Further, the 2016 forecast of the global gross domestic product (GDP) growth has been reported to be around 2.4 percent. It is worth mentioning that more than half of the global tourist traffic and about 35 percent of the world trade by value is covered by air travel. On the contrary, the global cargo traffic market follows an alternate profile and is characterised by the industry's strong dependence on current production and handling capacities. Despite the cargo traffic being less prominent than the passenger traffic, it continues to show a growth of 3.8 percent in terms of freight tonne kilometres (FTKs) towards to end of 2016 [3]. Though the cargo sector showed a good year-end performance, there were significant challenges accounted due to stagnation of world trade.

With the ever increasing demand of aircrafts and freight liners especially in the civil market, the manufacturing sector is pursuing the development of innovative next generation platforms to achieve cost effectiveness, travel comfort and delivery targets. The Airbus's Global Market Forecast for 2016-2035 reports that the growth in air traffic would account to a rise of 4.5 percent annually with a demand of 33,000 new aircrafts approaching the value of US\$5.2 trillion over the next 20 years [4]. Further the AGP reports that, in the UK alone, there is a backlog of over 13,000 aircrafts with an equivalent value of GBP£200 billion suggesting a large scope for growth in the civil aviation sector [5]. The current landscape clearly indicates that the airlines continue to achieve profits not only due to good traffic behaviour but also due to an increase in efficiency in aspects such as airplane load, accurate business models and other internal activities. This economic bonanza leads airlines to renovate their fleets, which has repercussions on the backlog for aircraft OEMs. The aim of this paper is to understand various factors that govern the growth of the sector through the identification of major 'push' and 'pull' factors that control the manufacturing demand.



Fig. 1 Passenger traffic in RPK (2015-2016) [2]

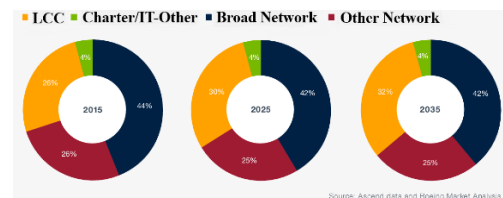


Fig. 2 Forecast business models as per Boeing [15]

## 2. 'Push' and 'Pull' – an introduction

In order to understand and establish various factors that contribute to the growth of the sector, it is essential to define them as 'Push' and 'Pull' factors. Push factors may be referred to those internal factors that push the industry to adapt and consume products. These factors are intrinsic and are dependent on intangible socio-economic, demographic and market knowledge. 'Pull' factors on the other hand are external forces that attract the industry to influence the consumption of the same product [6]. These 'pull' factors are heavily reliant on consumer's needs and behaviours' including attractiveness, convenience and accessibility through innovative technological features, price, quality and a range of dependent metrics. For this research, the following fundamental key performance indicators or KPIs are used;

- Social
- Economic
- Demographic

Most of the factors have both a 'pushing' and a 'pulling' attitude and some which constitute as basic influencing factors. For the purpose of the paper, only socio-economic and demographic factors are considered. They are classified mostly based on how much they sway on the push and pull attribute.

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