

Example engineering essay



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Critically analyse and evaluate the impact of aviation on society

Introduction

The aviation industry has dramatically changed the world we live in and has had a huge impact on almost all societies around the world. Since the first flight of the 'Kitty Hawk' in 1903, aviation has developed at a surprising rate and has become a major component of the developed countries and their respective economies. This essay will discuss the impact of aviation on the society, along with the evaluating its positive and negative influences on the mankind. Furthermore, this essay will discuss the environmental, social and economic impact of aviation in conjunction with its contribution on globalisation.

Transformation from a local industry to global economic beneficiary

Even well into the twentieth century, most people only ever travelled short distances; it was only the rich people who enjoyed the luxury of traveling great distances in short time. However, the advent of commercial aviation has opened the doors for the less privileged as well, and now a larger number of people can travel to greater distances in the shortest possible time (Airbus, 2008). With the expansion of the commercial aviation sector, it is increasingly becoming a cheaper means of travelling. In recent decades, the phenomenon of budget airlines has enabled many more people to fly (Whitelegg, 2008). Furthermore, the aviation sector has also provided the grounds for the global tourism industry to develop. The modern tourism industry is unthinkable without aviation. This is because, nowadays, it is a common practice amongst people to travel by air quite frequently for

business or pleasure. Thus, increased tourism helps in generating more and more job opportunities, which in turn improves the global economy.

One of the most prominent impacts of aviation is that it has revolutionised the way in which goods and people are moved around the world (Pew, 2009). Earlier, transportation was a hassle as it was time consuming. With aviation, people now have a securer and faster alternative to travel or transport their goods. The other major benefit of aviation is its profound impact on the economy (Pew, 2009). It has also facilitated the development of industries and businesses, resulting in a great boost in economic activities and trade (Pew, 2009).

The transport of freight by air has also increased greatly in the recent decades. The goods that are being manufactured in one country are now easily transported in shorter periods of time to another country (FAA, 2005). For example a product made in Manchester can now be shipped anywhere in the world, in no time. The growth of air freight has also created many opportunities for businesses- it has allowed them to export to markets that were previously not preferred due to the long distances and the subsequent costs incurred (FAA, 2005). Air freight has led to a boost in trade all over the world and has greatly improved the economy of underdeveloped countries. It has also contributed to the growing globalisation of economic activities. This is the reason behind the increasing interdependency of world economies. It has also led to an increase in the productivity of various industries (Gazzard, 2009) which again, helps in the generation of wealth, subsequently benefitting the members of the society (Whitelegg, 2008).

The following sections will present some of the specific major benefits of the aviation industry which derive from the improvements it has made to transport and industry noted above.

A Source of FDI

A highly prominent feature of the modern economy is that, large multinational companies are now investing around the world. This is known as Foreign Direct Investment (FDI). The importance of FDI is recognised by many governments and is one of the leading drivers of the world economy (PTI, 2012). The opportunity created by the aviation industry has greatly facilitated the rise of FDI (Globenet, 2007). Thus, multinational companies usually have a preference of locating their investments near international airports (Whitelegg, 2008).

Employment opportunities

‘Aviation is a fast growing sector of the economy’ (Whitelegg, 2008). The aviation industry, despite its technological advances, is still very labour-intensive. A number of international airlines have developed their offices in various cities, providing full-fledged services of transportation. Thus, it has a pivotal role in the growth of the local economies in that it provides job opportunities to a large number of people (Whitelegg, 2008).

Levies

Many governments invest heavily in airports in order to help the aviation industry (Whitelegg, 2008). Apart from benefitting the local people, this sector also pays taxes, which are in turn spent by the government in the provision of services ranging from education to health (Bridges, 2012). The aviation industry is also heavily subsidised by governments in the form of direct subsidies and tax breaks. The fuel that the various airlines use is also

subsidised through tax breaks. Governments subsidise the aviation industry in the belief that it helps to generate economic growth (Holliday et. al, 2002). While this may be the case in a few situations, the money used by governments to subsidise the aviation industry could be better spent on other infrastructure projects as well. However, the investment needed to create jobs in the aviation industry is very high and this same investment could be successful in producing even more jobs if invested in other areas of the economy.

Globalisation

Perhaps the most important trend in the modern world is globalisation. It is the increasing inter-connectedness of the world on an economic, social, political and cultural level. It has made the world smaller, and now some have even spoken of a ‘Global Village’ (Hopkins, 2002). The aviation industry has played a crucial role in the process of globalisation. Aviation has helped societies come closer. With the development of aviation, people can travel more freely. This has helped to promote migration and the exchange of ideas – two very important factors of globalisation which will be discussed in the following two sections (IATA, 2008).

Source of Non-Monetary & Intangible benefits

People from different parts of the world, with different views and ideas, now traverse across the world. It has for example, allowed people to study and work in places far away from their native places. It has allowed people from different regions to come together and attend conferences and meetings. This easy movement of people brings new ideas and thoughts into an existing environment and culture. The exchange of ideas is very important,

as it facilitates the creation of a more liberal and open society, and it is no longer possible for a society to stop entering those ideas into the society. Rather, it is exposed to the beliefs, values and cultures of other societies as well (Hopkins, 2002, p. 13). Aviation has opened up the world and possibly made societies more tolerant of differences and minorities.

Migration opportunities

With aviation, travel has become cheaper and easier (Kirby, 2008). This has greatly increased migration throughout the world. The modern world has witnessed unprecedented levels of migration. Migration has always been a significant feature of human life. People have always travelled long distances in the search for security and resources (Hopkins, 2002). Mass migration is a controversial issue. Many believe that an influx of usually younger and skilled people into a society is of real economic benefit (Kirby, 2008). Their energy and knowledge allows an economy to be more productive and efficient. Many businesses seek highly qualified migrants and it is widely believed that the ageing societies of Western Europe need immigrants in order to maintain their living standards (Crouch, 2004). Migration greatly increases the wealth of a nation as it can bring knowledgeable people which adds to the talent base and human capital of a country. However, migration also brings with it problems such as shortage of housing, and mass migration may produce tensions between immigrants and natives (IATA, 2007). The modern aviation industry has just fuelled this practice even more. This has had huge consequences for society. Many western societies are now of a cosmopolitan nature. They are now home to

very many nationalities and ethnic groups who have brought with them their culture and way of life.

Disadvantages of Aviation

Along with the great number of benefits, the aviation industry also brings some inconveniences, in the way that it creates a negative impact on the environment (Lehrer, 2001). The aviation industry generally has a local and a global impact upon the environment (Bridger, 2013). According to Panner (et. al, 2001), the rapid economic development of the globe in recent decades, has led to the degradation of the environment. It has led to worries over the rapid depletion of scarce natural resources, pollution and global warming (Penner et. al, 2001). These environmental challenges are perhaps the most important issues facing modern societies. The planes and airports have adversely impacted upon local environments and the quality of life of those who live in these environments (Lehrer, 2001). There is usually traffic congestion around airports. Aviation has made life very difficult for some localities in society, especially those located near busy airports as there is the problem of noise pollution. The adverse effects of noise pollution upon individuals have been recognised by the World Health Organisation in recent years (Whitelegg, 2008). The noise pollution caused by aircraft taking off and landing at airports has been proven to have a negative long term health impact on people.

Furthermore, modern aircrafts generate greenhouse gases like carbon. These greenhouse gases have been proven to have a highly degrading impact upon the environment (Weele, 1999). Green house gases stay in the atmosphere and lead to global warming. Global warming in turn leads to climate change

and this in the long term could have cataclysmic consequences for humanity (Weele, 1999). It could lead to the seas rising, drought and an increase in the frequency of extreme weather. The aviation industry has been proven to be a major emitter of greenhouse gases, which could lead to the catastrophe of global warming (Bridger, 2013).

However, it must be noted that the impact of the aviation industry on the environment has been disputed. In recent years the aviation industry has tried to appear to be environmentally friendly (Bridger, 2013). It has issued reports and surveys which seek to prove that aviation is not as harmful to the environment, contrary to what many believe (EC, 2014). On balance, however, the evidence suggests that the aviation industry is a major polluter of greenhouse gases and therefore is a major contributor to climate change (Hepworth & Ducatel, 1992).

Conclusion

Aviation has helped transform many societies around the globe. It has had a huge impact upon every society. While many of the changes have been good, some have been negative. Aviation has, by and large, helped to drive the global economy by allowing the free movement of goods and people (Hopkins, 2002). It has also changed modern societies by facilitating mass migration. The modern world has been shaped by aviation. However, the environmental impact of aviation can not be ignored. The local environmental impact of aviation is certainly harmful to those who live near airports (Whitelegg, 2008). However, aviation's potential to damage the global environment is of major concern. As a major greenhouse gas emitter,

aviation is contributing to the process of global warming, which could have disastrous consequences for humanity.

While the aviation sector has, overall, been a real benefit for societies around the world, there needs to be some major changes- it must be genuinely environmentally friendly. There may also be a need to re-think the economic benefits of aviation to society, to take into account the environmental costs of the industry to society. The industry needs to be part of an overall plan for global sustainable development that includes development that does not harm the environment or lead to any sort of negative climate change. This sector should, without delay, look into its shortcomings and try and look for constructive solutions, before it becomes too late.

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