Air Transport and Destination Performance – A case study of three African countries (Ethiopia, Kenya and South Africa)

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Tourism is increasingly being promoted as an important source of economic growth especially in developing countries. While there are many elements that contribute to tourism growth, without an efficient air transport system, it is almost impossible for a number of landlocked and geographically isolated developing nations to expand and sustain domestic and international tourism. From the perspective of an African nation the most important question is whether the benefit of aviation expansion would have any superiority in poverty reduction. This paper seeks to (1) investigate the relationship between air transport and tourism growth especially in selected African countries and (2) highlight ways and means of capturing and strengthening air transport and tourism industry's contribution. To achieve these objectives the research uses a combination of literature review and case study analyses. It concludes that efficient air transport can act as a facilitator in the development of more diversified export-based industries, away from over-reliance on natural resources, which in the presence of linkages with other domestic economic sectors can act as a stimulus for broadly based growth.

Keywords: air transport, tourism, Sub-Saharan Africa, Kenya, Ethiopia, South Africa, Yamoussoukro Decision

1. Introduction

Transport in general is important when you have to explain tourism[1] growth. Air transport occupies a central position in the long-haul tourism. Air access is a necessary precondition for international tourism, and in many cases for domestic tourism for many developing nations. Studies have shown that regulatory conditions governing air transport affect the development of destinations. The growing interdependence of aviation and international tourism have led to major investment in airport infrastructures in a number of African countries (for example, Kenya and Senegal) in recent years.

Over the past few decades necessary steps have been taken to lift restrictions on air transport on a worldwide scale. The positive impact of an efficient aviation infrastructure as an integral component of the tourism system in most parts of the world has recently received theoretical and empirical support in a number of studies. Since 1980, international tourist arrivals in developed and developing countries have, despite occasional shocks, shown virtually uninterrupted growth – from 277 million in 1980 to 528 million in 1995, and 983 million in 2011 (UNWTO, 2012). Receipts from international tourism have also expanded and were estimated at US $ 1,030 billion worldwide in 2011. With respect to Sub-Saharan Africa (SSA), international tourist arrivals grew at an annual rate of 7.9 percent between 2005 and 2011 to a total of 31 million (in 2011) up from 6.4 million in 1990 (UNWTO, 2012).

Tourism is now the biggest foreign exchange earner in most African countries. Although some of these nations have recognized the importance of tourism for their economy and have taken steps to set up an efficient tourism sector through liberalisation, progress in the aviation sector has been slow. Prideaux (2000) argues that the operation of the transport system is often taken as given and the impact that transport can exert over the shape and welfare of the tourism industry is often ignored. A major objective of this study is to investigate the link between air transport liberalisation, tourism growth and poverty reduction. Researches acknowledge that in economies in which resources are not fully employed further progress in air transport can help to improve living

[1] Tourism is here defined as "Activities related to people travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes".

standards by improving access to services and markets, decreasing transport costs and increasing mobility of people and goods. The contribution of air transport to tourism development largely hinges on the development and implementation of complementary policies that are likely to benefit both airlines and passengers and other sectors like trade, agriculture, construction, etc. This paper is the first output of an on-going research attempting to address two broad research questions: (1) what is the economic contribution of aviation growth to African nations? (2) would air transport liberalisation result in a net positive economic impact for African countries as in other parts of the world? The following questions will be raised and answered in this paper:

- What is the state of air transport liberalisation in the selected countries?
- How does the tourism sector perform in the respective countries?
- How can the aviation and tourism's mutual benefit be improved?

The remainder of this paper is organized as follows. Following the introduction, an overview of the relationship between air transport and tourism is presented in section 2, and thereafter a literature review of air transport and tourism is provided in section 3. The focus of section 4 is on the expected benefits of air transport liberalisation on poverty reduction in low-income countries. This is followed by an examination of the recent trends in air transport and tourism in Sub-Saharan Africa with a special focus on Kenya, Ethiopia and South Africa in section 5. Some ways of strengthening the relationship between air transport and tourism from an African perspective will be discussed in section 6 of this paper.

2. Air transport and tourism – a mutual relationship

Good accessibility is essential for the development of any tourism destination. While mass tourism was possible by other means of transport, the great step forward was put by developments in commercial aviation. From the 1970s onwards, there has been a continuous stream of innovations and favorable conditions in air transport which have resulted in the stimulation of growth in tourism, especially in long-haul tourism. Two developments contributed significantly to growth of air transport. (1) The rapid development and application of technology have made it possible for aircraft to operate efficiently and safely. But the main contribution of technology has been to lower air fares, thereby allowing more and more people to use air transport on a routine basis (InterVISTA, 2006). (2) The gradual abolition of restrictions on air transport has contributed to create an efficient air transport structure based on free market mechanism. These links between air transport and tourism industries are reciprocal. On one hand, tourism is a driving factor for change in air transport, and on the other, air transport opens new destinations and new forms of tourism such as long-haul excursions (Bieger, 2006).

The strong complementarity between air transport and tourism to certain regions means that the performance of the tourism is dependent on both market conditions and government policy prevailing in aviation industry and vice-versa. This implies that both industries should be considered simultaneously and should work more closely for mutual benefit. Dwyer, Forsyth, and Dwyer (2010) argue that international aviation agreements were negotiated between countries with no reference to any impacts they might have on other industries, especially tourism. Consequently, until recently, the economic impact of alternative civil aviation regimes has often been investigated with no explicit reference to the benefits of tourism. This can partly be explained by the discrepancies between tourism and aviation industries regarding approaches to measuring demand. The former is usually measured by looking at tourism numbers or tourist-nights and the latter in terms of passengers or passenger-kilometers but it is not often possible to identify the purpose, or true origin and destination of travel (Graham, Papatheodorou and Forsyth, 2008).

Tourism is likely to benefit from open skies policies. From a general stand, the benefits emanating from air transport liberalisation include the following: (1) At the macroeconomic level, air transport liberalisation and the resulting improved accessibility of tourism regions are linked to a level of output, employment and income within a national economy. (2) At the microeconomic level, it is acknowledged that air liberalisation results in enhanced consumer choice (airlines, routes, schedules, frequencies and airports), lower fares and consequently greater consumer surplus. A significant number of studies have identified a clear link between lower airfares and greater tourist passenger traffic. It has also been recognized that liberalisation of air services stimulates the creation and growth of low cost airlines, which in turn leads to a rapid expansion of traffic and tourism arrivals. In spite of the increase recognition of these links most countries continue to protect the national airline by restricting

international routes. In order to appreciate how restrictions on airline markets harm the tourism industry it is important to understand the regulatory framework governing international air transport.

Air transport regulation implemented after the World War II took the form of restrictive bilateral agreements between countries regarding prices, the number of flights and the number of seats that could be offered (Doganis, 2006). However, over the past two decades more or less, the airline industry has been transformed by liberalisation, which began in the US in 1978 with the Airline Deregulation Act, and spread at varying speed to other countries. The resulting competition between the incumbent airlines and new airlines stimulated innovation in the airline sector, such as the emergence of the low cost sector. Liberalisation in the regions thus far has resulted in significant benefits in terms of higher passenger volumes and lower prices. According to InterVISTAS (2006), the establishment of the Single European Aviation Market resulted in an increase in passenger volumes by 33 percent (44 million passengers) from 1993 to 2002. Liberalisation has led to rapid growth in international tourism for many countries (Papatheodorou, 2002). In most parts of the world deregulation and liberalisation have resulted in important changes in both airfares and services offered to tourists and increasingly, the importance of aviation policies for destination development is gaining widespread recognition. As Forsyth (2006a) points out, most countries have taken tourism benefits into account when international aviation negotiations are conducted. Papatheodorou (2002) argues that open skies agreements are the most effective measure to stimulate the growth of tourism.

3. Air transport and tourism – a review of literature

In recent years, the investigation of the likely benefits of air services on tourism in the context of specific countries and regions has constituted a significant area of interest in both tourism and transport research. In most of the work carried out in this field, the focus has been laid on the impact of air transport policy on tourism development. Literature on the link between air transport and tourism can be classified under the following categories:

Aviation regimes – More attention has focused upon the overall implications for the tourism sector of alternative aviation regimes (Forsyth, 2006b; Papatheodorou, 2002; Turton and Mutambirwa, 1996; Warnock-Smith and Morrell, 2008; Findlay and Forsyth, 1988; Warnock-Smith and O'Connell, 2011). With the exception of the study by Warnock-Smith and O'Connell, earlier researches found a positive relationship between air transport liberalisation and incoming tourism to a country. In fact, applying Structural Equation Models, Warnock-Smith and O'Connell (2011) test the hypothesis that restrictive air policies can stifle air traffic and incoming tourism. The authors explore this relationship by comparing recent case evidence from the Caribbean and the Middle-East. The study's finding demonstrates that a different optimal regulatory framework may exist for every region; meaning that movements towards air transport liberalisation does not always represent the only or most appropriate strategy for stimulating further growth in tourism exports.

Other studies include Raguraman (1997), Bieger and Wittmer (2006), Graham, Papatheodorou and Forsyth (2008), Duval and Schiff (2011) and WTO (1994). Raguraman (1997) studies the costs and benefits of tourism from the point of view of the implementation of air services on specific routes on the economy of Thailand. He argues that the leakages (outbound travel) and expenditures related to the means of transport are often neglected in the conceptualization of tourism process and should be taken into account when assessing the economic impact of tourism. Graham, Papatheodorou and Forsyth (2008) bring together a mix of research papers dealing with the close but complex interlink between the air travel and the tourism sectors.

Low cost carriers (LCCs) – The role of LCCs has been investigated by Rey, Myro and Galera (2011); Castillo-Manzano, López-Valpuesta and González-Laxe (2011) and Davison and Ryley (2010). Applying a dynamic panel data model, Rey, Myro and Galera (2011) investigate the effect of LCCs on tourism in Spain. The study's result highlights a positive direct and indirect effect of LCCs on the demand for tourism in Spain. Castillo-Manzano, López-Valpuesta and González-Laxe (2011) study the effects of the introduction of LCCs at underutilized regional airports on economic agents and their behavioral responses, concluding from the tourism management viewpoint that most of the tourism sectors consider LCCs to be perfect substitutes for network carriers and even improvements on these in most cases. Davison and Ryley (2010) employ a household survey design to examine tourism destination preferences of LCCs user in the East Midlands, the emphasis being on price sensitivity to air

fare by population segment. They concluded that there is a greater desire for cultural tourism-based destinations and that different air travel population segments have different levels of price sensitivity. Bieger and Wittmer (2006) develop an overall system model to analyze the link between air transport and tourism and derive conclusions for airlines destination and policy makers. They argue that the emergence of low cost airlines is a crucial step towards the development of air travel in tourism much in the same way as the development of the charter airlines and aviation deregulation.

The role of charter airlines – It should also be noted that there is a direct link between the development of charter companies and tourism development. Laws (1997) argues that without regular access charter flights, it is almost impossible for mass-market tourism to attract sufficient visitors to sustain a fully developed tourism industry.

Airline alliances – The liberalisation of air services has profoundly modified the strategies of airlines, which are now bent on exploiting their market access potential by forging strategic alliances. The impact of airline alliances on tourism development has been investigated (Morley, 2003; 2007). After examining the importance of alliances for the airlines and the airline industry, the author applies the result to tourism. He concludes for the case of Australia that the impacts of fare decreases as a consequence of alliances are likely to be small (an estimated 2.5 percent increase in tourist numbers).

Transportation costs and tourism demand – Transportation cost is a significant determinant of tourism demand (Crouch, 1995; Sinclair, 1998). An evidence of the impact of affordable air transport on tourist behavior can be found in Mings and McHugh (1992). Literature suggests that demand for air travel is sensitive to changes in air travel prices and incomes. Oum, Waters and Yong (1992) point out that leisure travellers exhibit elastic demand for air travel. In their survey of the tourism demand literature, Witt and Witt (1995) find a range of travel cost elasticities of –0.04 to –4.34, with a median estimate of –0.50. Brons, et al. (2002) and Gillen, et al. (2003) find that business travellers are less responsive to changes in prices than leisure travellers. Brons, et al. (2002) argues that long haul travellers are more sensitive to airfare changes than short haul travellers. This largely reflects among others the relative lack of substitute modes on longer distance flights and the fact that long-distance flights are usually more expensive to begin with than short-distance flights. In an extensive research undertaken on behalf of IATA by InterVISTAS Consulting Inc. it was found that at route level air travel price elasticities on intra SSA short-haul routes were higher (0.9) than on long-haul routes(0.8).

Infrastructure and accessibility – Other issues such as the role of infrastructure have been investigated. Debbage (2002) investigates how airport-based infrastructural constraints can influence tourism flows, particularly in the major international gateway airports of the United States — European Union/ United Kingdom market. He concludes that if tourism between the Unites States and the European Union is to continue to flourish, a market-based allocation of slots need to be adopted to make airports more “elastic” through the efficient use of existing infrastructure. More recently, Duval and Schiff (2011) use New Zealand as a case study to illustrate the effect of air services availability on international visitors, concluding that the existence of regional hubs and robust third-country carriers provide sufficient airlift for visitors from countries without non-stop air services to New Zealand.

Khadoroo (2007) points out that transport infrastructure matters in overall tourism development. Applying a gravity model of trade to the tourism services industry for 28 countries over the decade 1990–2000, Khadoroo and Seetanah (2008) empirically estimate the link between transport infrastructure and tourism flows using a dynamic panel framework. They found a positive relationship between transport capital stock of countries in the sample and the number of tourist arrivals. The implication is that government should integrate transportation policies into tourism planning, especially for those countries with poor infrastructure.

Aviation taxation – Some of the earliest work was that of Abeyratne (1993) who studied the effects of taxation of international air transport on tourism, concluding that both industries are inextricably linked to each other and to tax one in order to develop the other would be a self-defeating measure.

Environmental concerns – Other studies have focused on the impact on tourism of international climate policy regimes. Abeyratne (1999) explores the link between tourism and air transport for small island developing states, with emphasis laid on environment protection. The study concludes that without an effective management of the

two activities sustainable development cannot be achieved. Pentelowa and Scott (2011) look at the implications for the Caribbean tourism industry of the inclusion of aviation in international climate policy regimes. They conclude that under current proposals for both mitigation and adaptation focused climate policy; there will be no meaningful impact on the growth of arrival numbers to the Caribbean from the major markets of Europe and North America. Copeland (1992) discusses the role of airlines in the tourism and environment debate and presents the case for their greater involvement in environmental issues. The case studies do not cover environmental concerns.

4. The expected benefits of air transport liberalisation for poverty reduction in low-income developing countries

It has often been emphasized that countries that have liberalised their air transport have seen significant economic and social benefits. Estimates of the increase in traffic stemming from international air service liberalisation range from 12 percent to 35 and up to 50 percent, depending on the periods measured (InterVISTA, 2006). Recent literature confirms the job creation effects of liberalisation. Button and Taylor (2006) acknowledge a strong and significant link between employment and air services in Europe, suggesting that "each 1,000 enplaning/ deplaning passengers increases employment by 44 to 73 jobs, depending of the number of routes already served". Myburgh, et al. (2006) indicates that air transport liberalisation in Southern African Development Community region, would lead to a 20 percent increase in air traffic and the creation of 35,000 new jobs in the tourist industry with a further 37,000 new jobs in the wider regional economy. Numerous studies argue that welfare gains from air liberalisation will far outweigh any negative consequences for national carriers. Myburgh, et al. (2006) argues that the costs of supporting the national airline outweigh the benefits of liberalisation.

The relationship between air transport liberalisation and poverty alleviation has also been investigated (ATAG, 2003).The traditional argument in favour of a positive link between air transport liberalisation and poverty focuses on the three linkages. DCs often are endowed with tourism-attraction potentials, but most countries are located far away from the main origin of international tourism, namely, North America, Europe and Japan. Tourism is generally described as a labour-intensive, low skill and a growth industry. Liberalising air services would lead to substantial growth in tourism traffic and receipt. Tourism expansion would reduce poverty by generating additional employment for the poor or increasing tax collection. It is important to note that the existing quantitative literature has not given enough attention to distributional effects of policy changes with respect to air transport. This raises the question of how well the effects of air services liberalisation on traffic flow are captured in the existing literature.

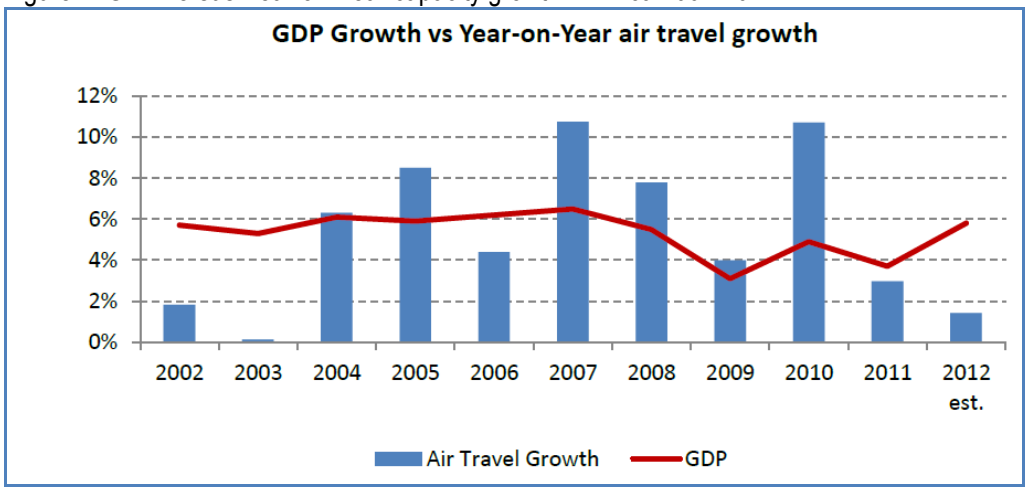
5. Air transport policies in Southern and East Africa and tourism performance: The cases of Kenya, Ethiopia and South Africa

Ethiopia, Kenya and South Africa have succeeded in establishing efficient state-owned carriers. The major international airports in SSA, namely Johannesburg (20 percent), Nairobi (10 percent) and Addis Ababa (6 percent) handled 36 percent of all international traffic in Africa in 2007. They act as gateways to the continent for intercontinental traffic and as hubs for its distribution.

5.1. Air transport and tourism trends in Africa

Despite a small base, Africa's growth rates are impressive. According to OAG (2012) Africa's air transport industry grew at a robust rate of 5.76 percent per year between 2001-2007 (as measured in seat kms).

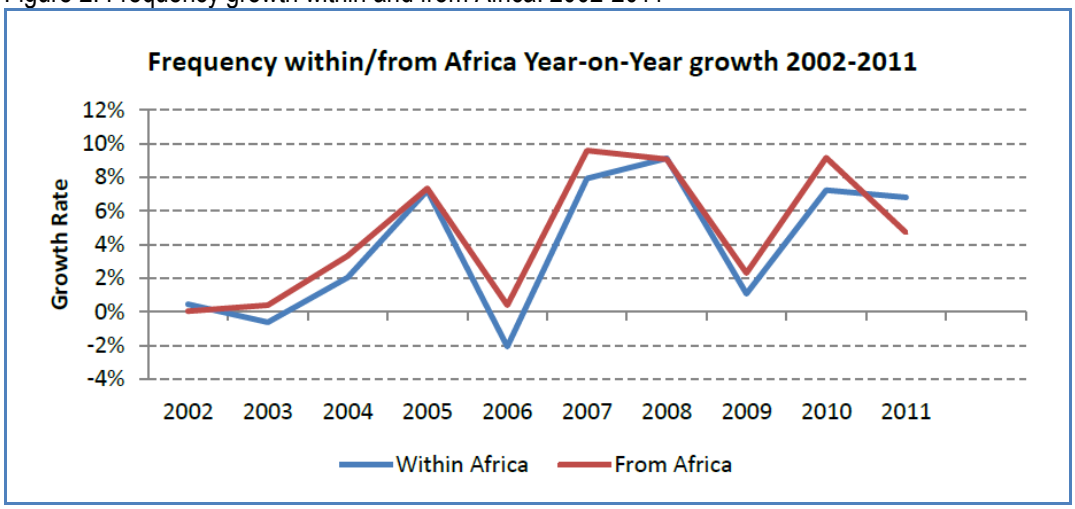
Figure 1: GDP versus Year-on-Year capacity growth in Africa 2002-2012



Source: OAG (2012)

The region's analysis indicates an average increase in traffic (as measured in revenue passenger kilometre, RPK) of 5.6 percent between 2002 and 2012. During the same period the average growth domestic product (GDP) rate in Africa was at 5 percent driven largely by demand for natural resources, including oil, gas, mining and tourism industries. As shown in Figure (1), between 2007 and 2010, air traffic grew faster than GDP, 2007 and 2010 being the best years with more than 10 percent growth. At the continental level a growing middle class and increased urbanization contribute to the continent's commercial aviation potential. The African Development Bank projects that Africa's middle class will grow by more than 700 million people by 2030.

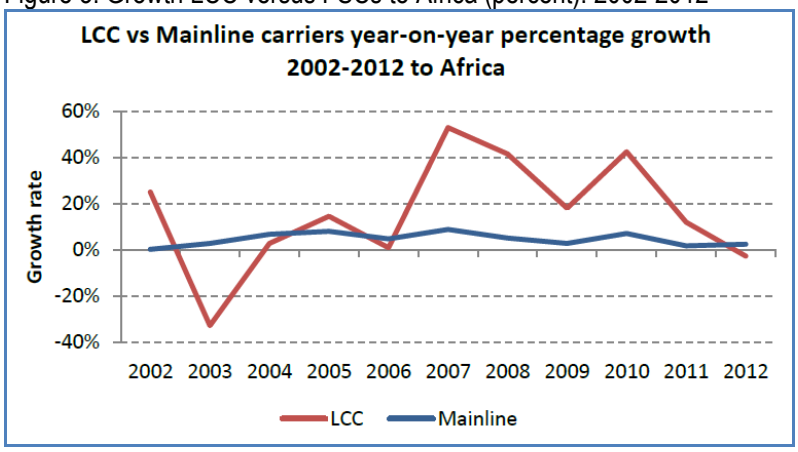
Figure 2: Frequency growth within and from Africa: 2002-2011



Source: OAG (2012)

As can be seen from Figure (2), frequency within and from Africa has been steadily growing over the last decade at an average rate of 4.5 percent. The international trend dropped to 0 percent in 2006 with a rebound in growth in 2007 to 10 percent. At the same time, the domestic trend decreased to -2 percent in 2006 to rise in 2007 to 8 percent. Between 2005 and 2006, 25 African carriers stopped some services generally to and within Kenya, Nigeria, Togo and South Africa due to certain financial difficulties or restructure, causing a drop in the 2006 trend. The second drop in the trend in 2009 was a result of the global economic downturn, only managing a 2 percent growth rate for flights from Africa and 1 percent for flights within Africa as international trend scaled back throughout the downtown (OAG, 2012).

Figure 3: Growth LCC versus FSCs to Africa (percent): 2002-2012



Source: OAG (2012)

Figure (3) compares the yearly percentage growth of LCCs and full service carriers (FSCs) to Africa between 2002 and 2012. There has been a marked increase in the LCC to Africa since 2007, but the negative impact of the European debt crisis on traffic flows to Africa seems to be strong. OAG (2012) found that the contribution of Low Cost Carriers in market share to and within Africa grew by 6 percent points over the last decade. The report highlights that LCC's year-on-year percentage growth rate is currently averaging 16 percent versus FSC's of only 5 percent. The largest FSC flying to Africa is EgyptAir with 14 percent market share which shows 2 percent points drop in 2012 compared with 2002. Air France indicates the same level of an average growth but its market share dropped 7 percent points from 17 percent in 2002 to 10 percent in 2012 (OAG, 2012).

The total number of seats in 2007 was a little over 400,000 in Central Africa, 2.5 million in East Africa, 4 million in Southern Africa and 2.4 million in West Africa (see Table 1). Air transport capacity within the East African countries increased markedly during the last decade while Central African countries experienced a decrease of almost 30 percent of their air transport capacity. At the same time, tourist arrivals in the different regions were 762,112; 11,141,149; 13,321,292, and 4,699,491 visitors in Central Africa, East Africa, Southern Africa and West Africa respectively. With 37 percent of long-haul flights connections in 2007, East Africa was the best connected region in SSA (Twining-Ward, 2009). West Africa, Southern Africa and Central Africa received 30, 23 and 10 percent of long-haul flights, respectively. The most important carrier long-haul airlines serving the region are Air France/ KLM, Kenyan Airways, South African Airways, Brussels Air, British Airways, and Ethiopian Airlines It is obvious from the table that there is a strong relationship between the number of seats and the number of tourist arrivals. The percentage flights between countries by airlines are not part of either country being served is highest in countries with the highest YD score (see Table 1).

5.2. Air transport liberalisation efforts in Africa

To promote the development of air transport at continental level several policies were introduced leading to the Yamoussoukro Decision (YD) in late 1999, creating a liberalised intra-African aviation space. The YD established principles for internal market liberalisation and fair competition of the air transport sector with the aim of providing safe, efficient, reliable, and affordable air services to consumers. Under Article 10 of the Abuja Treaty (entered into force on 12 May 1994) establishing the African Economic Community, the YD entered into force a month after its signature in July 2000, namely from 12 th August 2000 with a two-year transitional period.

In summary, the major policies of the new policy framework agreed upon by African ministers are to: (1) liberalize the intra-African air transport services by means of gradually eliminating all non-physical barriers and restrictions on access, frequency, capacity and tariffs; (2) provide free exercise of first, second, third, fourth and fifth freedom rights for passengers and freight air services by eligible airlines; (3) ensure fair competition on a non-discriminatory basis; (4) comply with international safety standards. Of the 54 African countries 44 have signed

Yamoussoukro Decision. Two of the 10 countries that are not a member of the Yamoussoukro have implemented the Yamoussoukro Decision by means of their Regional Economic Communities.

With regards to the lessons learnt from the implementation of the YD, the following impacts have been observed on routes where implementation has been practiced. The implication is that there have been an increase in frequencies, air traffic and aircraft movements as well as in competition leading to the improvement of the quality of services and the introduction of several tariff ranges; tariffs on some routes have dropped by more than 30 percent (Myburgh, et al., 2006). Moreover, an improvement in the incomes of airport authorities, as well as airlines has been observed. Further developments include an increase in private sector interest in the air transport sector through participation in the capital and/ or establishment of new airlines; an increase in partnership/ alliance between African airlines; creation of new jobs; airline bankruptcies; increased tourism; high level of foreign direct investment and last but not least increased trade (ICAO, 2003).

The liberalisation process in Kenya, Ethiopia and South Africa is undertaken within the framework of the YD, the EAC/ COMESA treaty[2] and the SADC protocol on transport, communications and meteorology[3]. East Africa has two regional economic communities, COMESA, which is made up of the 20 countries and EAC which currently includes 5 countries. COMESA refers to the Common Market for Eastern and Southern Africa. COMESA was established to promote economic integration among countries.

The Southern African Development Community (SADC) is an organization of fifteen independent states of Southern Africa. The main objective of the COMESA/ EAC/ SADC tripartite cooperation with respect to air transportation is to foster greater regional co-operation through provision of better quality and competitively priced air transport services. Within the three sub-regions there has been marked relaxation on the capacity, frequency and designation restrictions. However, there are challenges that confront the full liberalisation under Yamoussoukro Decision including: (1) Low airport capacities; (2) Lack of safety oversight frameworks outside the international entry airports; and (3) Lack of an effective fair competition oversight.

Table 1: Benchmarking air transport and tourism in COMESA and other regional economic communities: 2007

	Central Africa (CEMAC)	East Africa (COMESA)	Southern Africa (SADC)	West Africa (WEAMU)	Grand Total
Annual seats, domestic	235,305	1,345,217	3,075,808	2,034,272	6,690,602
Annual seats, international within SSA	187,287	1,195,775	964,210	362,392	2,709,664
Average international city pairs served	15	29	26	20	90
Percentage of international flights conducted by foreign carriers (2007)	28.5	14.1	5.2	43.8	
Total tourist arrivals	762,112	11,141,491	13,321,292	4,699,491	29,924,386
Long-haul tourist arrivals	294,727	3,981,312	1,901,966	2,364,500	8,542,505
Total tourist receipts US$ million	680.9	7,423.3	11,034.3	2800.2	21,938.7
General status of YD implementation	Principles of the YD agreed upon. Some minor restrictions remain.	Full liberalisation agreed upon, but application and implementation remain pending.	No steps taken toward implementation.	The YD is fully implemented.	-
Status of air services liberalisation	Up to fifth freedom granted, tariffs are free, and capacity/frequency is open. Maximum two carriers per state may take part.	Pending. Operators will be able to serve any destination (all freedoms), and tariffs and capacity/frequency will be free.	No liberalisation has been initiated.	All freedoms, including cabotage, granted. Tariffs have been liberalized.	-
Overall implementation score	4	3	2	5	-

Source: author's compilation based on Bofinger (2009)

[2] http://www.comesa.int/

[3] http://www.sadc.int/themes/infrastructure/transport/air-aviation/

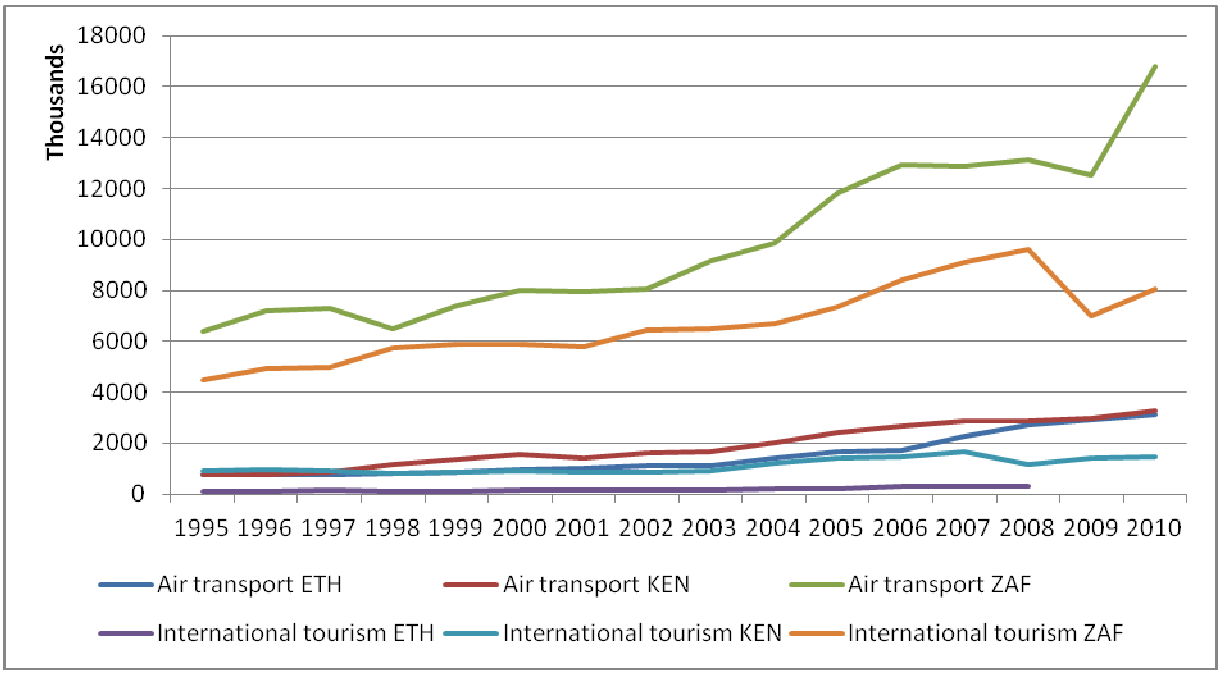
Note: CEMAC constitutes of 6 countries members, COMESA, 20; SADC, 14; WEAMU, 15.

5.3. Kenya

The current trend in tourism and air transport in Kenya

Tourism is one of the top three domestic exports of Kenya. Along coffee and tea tourism is one of the major growth and employment drivers in the Kenyan economy. Kenya's direct GDP contribution from tourism for 2009 was about US $ 1.5 billion which is approximately 3.7 percent of GDP[4]. The number of foreigners visiting Kenya has increased consistently over the past decade (see Figure 4), with a dramatic boom between 2004 and 2007. The graph below indicates that there has been a continuous increase in air traffic passengers carried and international tourism arrivals in Kenya. Also the figure indicates that there was a decline in tourism arrivals in 2007 as a result of political threats. Most tourists to Kenya arrive from Europe and North America. The government's policy is to encourage tourism growth in terms of the number of tourists, yield and diversity of experience. Accordingly, the following target has been set for the sector: to be among the top 10 long-haul tourist destinations offering a high-end, diverse, and distinctive visitor experience by 2030. A key element in achieving this target is to improve air transport since long-haul visitors account for more than half of total visitors. To better help the tourism sector, the government has taken measures to liberalize air transport services under the Yamoussoukro Decision.

Figure 4: Benchmarking air passenger carried and international tourist arrivals in Kenya, Ethiopia and South Africa: 1995-2010



Source: author's compilation based on World Bank statistics

State of liberalisation

The overall regulatory function of air transport is vested in the Kenyan Civil Aviation Authority, an independent regulatory body. The management of air transport in Kenya started in 1977 with the establishment of Kenya Airways after the break-up of the first East African Community comprising Kenya, Tanzania and Uganda. The air transport policy recognizes the importance of air transport for the facilitation of tourism and the transport of high yielding exports and perishable goods like floriculture and fish products. The framework on liberalisation of air transport is based on the basic arrangements under the EAC/ COMESA, YD and existing Balateral Air Services Agreements (BASAs) and under the recommendation of International Civil Aviation Organization (ICAO). As far as scheduled Air Services are concerned, the country has embraced multi-designation approach and has now

[4] Kenya National Tourism Policy, Ministry of Tourism

designated several Kenyan air carriers for different markets and routes. The Ministry of Transport negotiated, reviewed and concluded several BASAs in 2012. The most notable negotiated and/ or re-negotiated BASAs included those relating to Nigeria, Angola, India, Saudi Arabia, Canada and Mexico, among others.
With the exception of code sharing arrangement, where the country has adopted a restrictive approach and continues to deal with at bilateral levels[5], all other types of alliances between Kenyan carriers and non-Kenyan carriers are encouraged especially where they promote the development of capacity among local carriers to access various markets and increase foreign investment into the country, particularly in the aviation sector. Kenya has – on the basis of discussions held amongst aviation authorities and the stakeholders on the benefits of this arrangement – provisionally approved guidelines for franchising. These include domestic franchises, sub-regional franchise agreements and agreements between Kenyan carriers and international carriers on different markets.

The Kenyan policy on airline tariffs for scheduled international air services is greatly influenced by decisions at international forums. These include mainly the recommendations of the ICAO and the tariffs developed at the International Air Transport Association (IATA) Tariff Conferences. Charter rates and tariffs are deregulated and are guided by market forces.

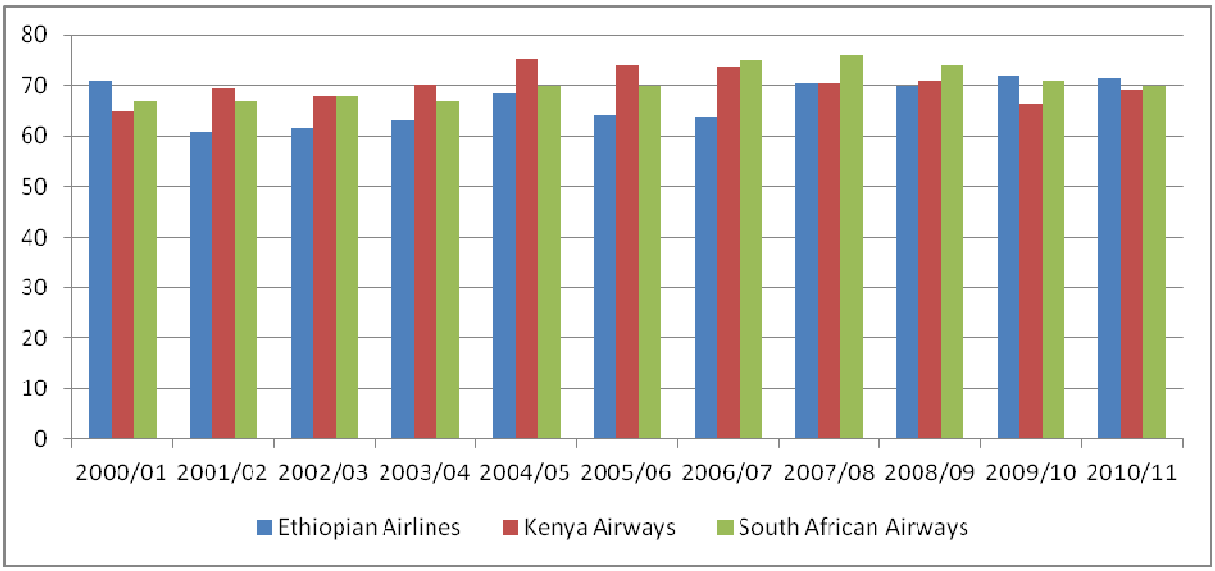
However, whereas air transport has been liberalized, the fares charged do not reflect cost of Operations and Tariffs charged are not based on ICAO recommended user charges cost recovery guidelines. The Kenya Ministry of Transport (2010) reports that a tariff band with maximum and minimum levels within which operators can compete is lacking. It further states that the domestic market lacks an effective regulatory framework for ensuring a level playing field for all operators and that existing competition laws are not suitable for the exigencies of the aviation sector. Another issue worth considering involves dispute resolution mechanisms in aviation which are not clearly or separately defined.

Airlines
There are 14 airlines (FSCs, LCCs and charter and cargo airlines) currently based in Kenya and operating domestic and international routes. Among these airlines Kenya Airways is the largest and is the flag carrier of Kenya. Founded in 1977 and owned by the government, Kenya Airways was the first African airline to get privatized in 1996. In fact, the government decided to sell 77 percent of the State owned enterprise to a broad array of investors. The airline is owned by individual shareholders (30.94 percent), Air France-KLM (26 percent), Kenyan government (23 percent), Kenyan investors (14.2 percent) and foreign investors (5.86 percent). The carrier's head office is located in Embakasi, Nairobi, with its hub at Jomo Kenyatta International Airport. From 23 destinations in 1977 to 59 destinations in 2012, the carrier in serving 47 destinations in Africa (12 destinations out of Africa), and has 45 aircrafts with good mix of 767 and 737 models, carrying about 3.6 million people a year. Kenya Airways is a SkyTeam member since 2007.

Figure 5 provides an overview of the passenger load factor of Kenya Airways, Ethiopian Airlines and South African Airlines over the period 2000 to 2011. The graph shows that the three airlines have load factors ranging between 62 percent and 72 percent throughout the surveyed period. Data from this Figure can be compared with the data in Figure 6 which shows the performance of the three airlines with respects to ASK and RPK over the same period. It can be seen from both graphs that there is a significant correlation between load factor and RPK.

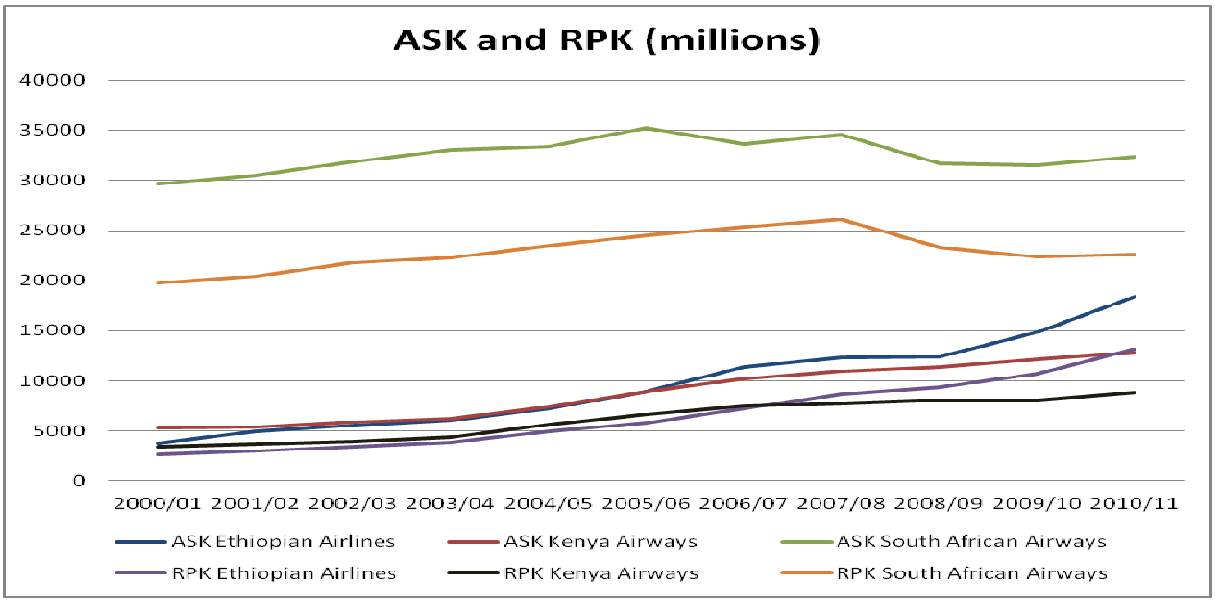
[5] where both Kenyan and foreign aeronautical authorities recognize the concept in principle. Respective aviation authorities then invite the airlines to apply for approval. The operating carrier is required to have the necessary traffic rights.

Figure 5: Trends of Passenger Load Factor (percent) of Kenya Airways, Ethiopian Airlines and South African Airlines: 2000-2011



Source: author's compilation based on airlines' annual reports

Figure 6: Trends of ASK and RPK performance of Kenya Airways, Ethiopian Airlines and South African Airlines: 2000-2011



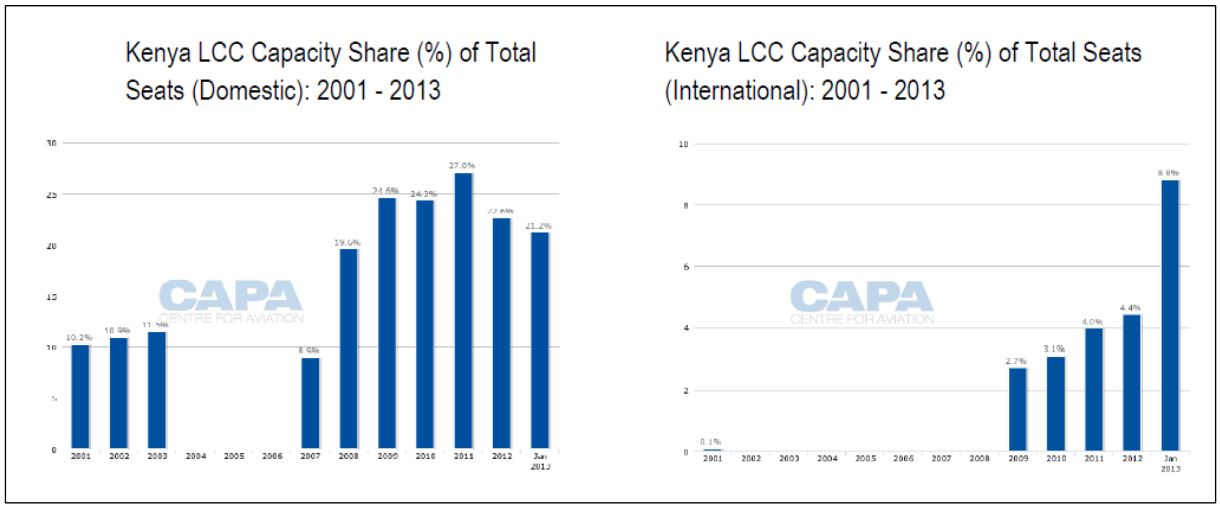
Source: author's compilation based on airlines' annual reports

Low cost sector

The LCC sector in Kenya and South Africa is evolving rapidly. Almost a fifth of domestic seats (10 percent in 2001, 27 percent in 2011 and 23 percent in 2012) are on LCCs in Kenya (see Figure 7), led by Air Kenya Express, JetLink Express, Fly540 and Kenya Airways subsidiary, Jambo Jet (see Table 2). Only approximately 4 percent of international seats are on LCCs in Kenya. The LCC market in South Africa is dominated by three carriers: kulula.com, Skywise, Mango Airlines and Airtime Airlines. The LCCs are split between domestic services and services geared to the international holiday. There is no LCC based in Ethiopia. The emergence of LCCs operations has helped to grow the domestic and regional markets. Its progress is tied to economic growth, political stability and a growing middle class. One of the most important factors that distinguish Kenya's economy from other African nations is its well-established middle class. Of the 37 million population, approximately 4

million belong to the middle class and earn between US $ 2,500 and US $ 40,000 a year. The development and expansion of LCCs should also contribute to greater economic integration and tourism development.

Figure 7: Trends in LCC capacity in Kenya: 2001-Jan. 2013



Source: CAPA - Centre for Aviation with data provided by OAG a UBM Aviation business

Table 2: LCCs in Kenya and South Africa

Airline	Base	Commenced
Kenya		
Jambo Jet (Kenya Airways' low-cost subsidiary)	-	was expected to begin services before the end of 2012
Fly540	Nairobi	2005
AirKenya Express (hybrid carrier, operates domestic scheduled and charter services)	Nairobi	1987
JetLink Express	Nairobi	2006
South Africa		
Kulula	Johannesburg	2001
1time (termination of Business in Nov. 2012, founders to launch Skywise in Q1 2013)	Johannesburg	2004
Mango (South Africa´s subsidiary)	Johannesburg	2006
Airtime Airlines	Durban	2009

Source: author's compilation based on airlines' annual reports and CAPA (2009)

It is interesting to note that despite the large number of airlines operating in Kenya, the country suffers from poorly connected domestic air service. As a result of poor infrastructure, an incomplete rail network, unpaved roads and safety issues domestic tourism in the country, while showing a general improvement, is developing at a slow rate. The flag carrier serves just four airports in Kenya. Some communities, particularly in the north-west of the country, are isolated and unreachable via air services. Due to data availability, this phase of the research does analyze charter airlines.

Airports

There are approximately 570 aerodromes in Kenya, of which 156 are public. Of the public aerodromes, ten are owned and operated by Kenya Airports Authority directly by the Kenya Airports Authority (KAA). Kenya's Jomo Kenyatta International Airport (JKIA) is the busiest airport in East Africa and a major hub of aviation activity for cargo and tourist passengers in East Africa, and is served by some 50 scheduled airlines, with direct connections to Europe, the Middle East, Asia and Africa. Located 18 kilometres east of Nairobi, JKIA is a hub for national carrier Kenya Airways. The airport was first opened in 1958 and it was designed for a maximum capacity of 2.5 million passengers a year. In 2006 the airport handled more than 4.4 million passengers. In 2005 KAA declared

their intention to expand and improve JKIA. JKIA needs to address capacity constraints and security issues. While runway capacity at JKIA is adequate, there are shortages of terminal capacity and aircraft parking areas.

5.4. Ethiopia

The current trend in tourism and air transport in Ethiopia

Ethiopia is endowed with an immense tourism potential owing to its natural, cultural and historical. However, Ethiopia unlike the other two African countries (Kenya and South Africa) tourism is still at its infant stage. The sector's share to GDP is very small (0.77% in 2008). In 2012, the country earned US $ 462 million (US $ 204.9 million in 2008) from the tourism sector according to the Ministry of Culture and Tourism. Of the 383,399 in 2008 (584,000 in 2012) tourists who visited the country's historical sites 27 percent came from Europe with a significance percentage from Germany, England, France and Italy; 18 percent from the United States; 27 percent from Africa; 9 percent from the Middle East and Asia each. According to the Ministry of Culture and Tourism 86 percent of the 2008 visitors (330,157) arrived by air.

Since 2005, the government has embarked reforms towards promoting tourism. The first tourism development policy of the country was launched in August, 2010. Accordingly, the following objectives among others have been set for the sector: (1) turn Ethiopia into a particularly preferred destination in Africa; (2) increase tourism receipt from the current US $ 250 million to US $ 3 billion by 2015 and (3) create direct jobs for 3.5 million citizens. Easy access from source markets has been recognised as one of the strategies to be used to achieve these objectives. With respect to air transport, the government has in recent years been intensifying efforts to obtain greater openness with other countries in order to create greater opportunities for Ethiopian Airlines. This has helped increase Ethiopia international traffic from 749,900 passengers in 1995 to 3,141,330 that is a 319 percent increase with an annual average growth rate of 11 percent.

State of liberalisation

Ethiopian Civil Aviation Authority (ECCA), an agency of the Ministry of Transport and Communications, is responsible for the provision of regulatory services for airlines, general aviation and airports and the provision of air traffic control services. The government has pursued an aggressive open skies policy in bilateral negotiations within as well as outside Africa. According to Schlumberger (2010), Ethiopia had until 2006 concluded a total of 84 bilaterals, of which 46 had been undertaken with African states, 13 with European states, and 25 with other states. The author states that "of the 46 bilaterals with African states, 19 can be considered to be in accordance with the Yamoussoukro Decision, of which 6 were concluded before the Yamoussoukro Decision came into force and 13 were signed after the Yamoussoukro Decision was adopted" (Schlumberger, 2010, p. 59).

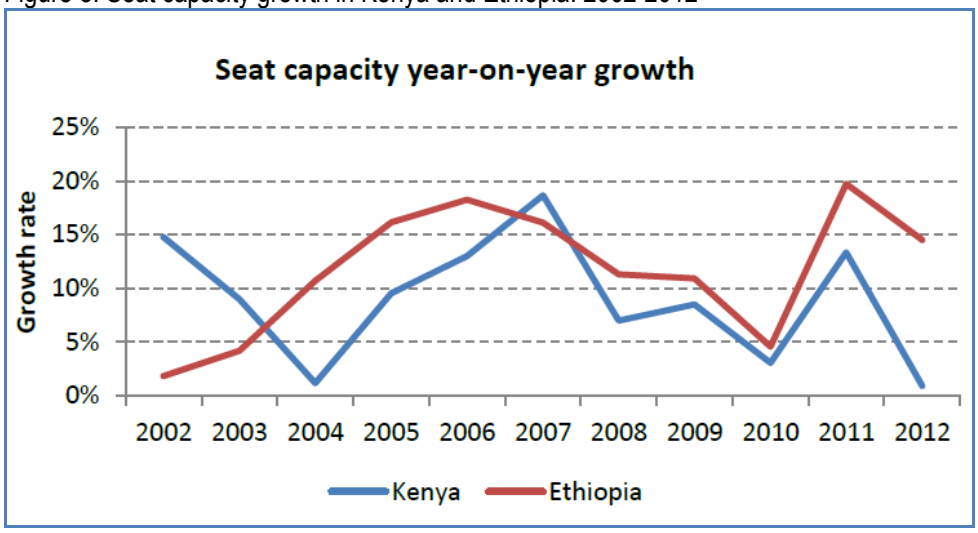
However, Ethiopia has been less successful in developing its domestic air services. Moreover, the country shows no sign of effective domestic liberalisation of the air transport market. Ethiopian Airlines holds near-monopoly on domestic routes (82.3 percent home capacity, see Table 5) and enjoys strong support from the government in negotiating new air service agreements. The minor role of the domestic traffic is a constraint for the development of domestic tourism since road and rail accessibility especially in rural area are still very low. Improving air traffic control at Addis Ababa Bole International Airport is another challenge that needs to be addressed. Thus, air traffic control is the greatest weakness of Ethiopia, as there is no air traffic surveillance technology in place (Foster and Morella, 2010).

Airlines

Founded in 1946, Ethiopian Airlines is a 100 percent state owned airlines and serves as the country's flag carrier. The carrier is considered the fastest growing airline company in Africa and is listed as second in the top ten safest airlines in Africa ranking. Ethiopian Airlines operates with a fleet of 42 passenger and 6 freighter planes and offers services to 62 international and 17 domestic destinations. Ethiopian Airlines is since December 2011 a member of Star Alliance. Protective policies have helped the airline maintain holds a near-monopoly on domestic routes, where it competes with just one other Ethiopian-registered carrier, Trans Nation Airways, which has one aircraft in service and none on order. Although government-owned, the airline is well managed, and has been able to raise its own debt and finance its own expansion without government cash, this is unusual among state-owned African airlines. The airline is in a better financial position than its rivals Kenya Airways and South African

Airways. In 2012, Ethiopian Airlines became the first Africa-based airline to receive delivery of the brand new Boeing 787 Dreamliner aircraft. In 2010, the airline launched ASKY Airlines, a Togo-based subsidiary, to take advantage of the fastest growing West Africa's regional air market and therefore increase its access to African air transport markets. Looking into the future, many pressing challenges still lie ahead of Ethiopian Airlines including airline competition both within and outside Africa, rising cost of fuel, security and insurance, slow liberalisation of air transport in Africa, regional instability, poor aviation infrastructure in most parts of the continent and government ownership to the degree that government interference in commercial decisions may harm the airline.

Figure 8: Seat capacity growth in Kenya and Ethiopia: 2002-2012



Source: OAG (2012)

It can be seen from Figure 8 that in Ethiopia and in Kenya, there has been over the last decade a steady increase in the year-on-year capacity growth trends, with average growth rates of 12 percent in Ethiopia and 9 percent in Kenya.

Low cost sector

Ethiopia has proven one of the least LCC-friendly markets. According to CAPA (2012), FSC accounts for 99.3 percent (0.7 percent for LCC) of capacity at the Bole International Airport, with flydubai being the only LCC to operate in Ethiopia, operating a three-time weekly service from Dubai.

Airports

There are 61 airports in Ethiopia, of which two international and twelve regional/ domestic are being administered by the ECCA, a regulatory agency, and the Ethiopia Airports' Enterprise, a service rendering agency. Almost all airports are owned by the government which also is the main provider of air traffic and navigation services. The ECCA has developed a comprehensive National Airports Development Plan covering the period 1999-2017 including among others airport expansion, pilot training and aircraft maintenance. Bole International Airport is Ethiopia's major entry point by air and is currently serving more than 150 flights a day with Ethiopian Airlines accounting for more than 60 daily departures. It is the third busiest airport in Africa, handling over 3 million passengers per year. The airport has been upgraded in recent years to quite high standards, and is now able to handle upto 17 aircraft simultaneously.

5.5. South Africa

The current trend in tourism and air transport in South Africa

Tourism has been identified as one of the key sectors with excellent potential to enhance economic growth. The National Tourism Sector Strategy which was launched in March 2011 aims at the sector's contribution to the economy from US $ 21 billion in 2009 to US $ 55 billion by 2020. Furthermore, the strategy is to increase the number of foreign tourist arrivals from seven million in 2009 to 15 million by 2020 and the number of domestic

tourists from 14.6 million to 18 million. It is expected that some 225,000 new jobs will be created in the sector by 2020[6].

Within SSA, South Africa (SA) is more preferred compared to most SSA destinations, with Southern Africa's hub in Johannesburg being served by multiple airlines, including its national carrier South African Airways. Studies show that every additional air frequency serving South Africa will support the creation of 1,100 new jobs in the year that service is introduced (Ndhlovu and Ricove, 2009). This underlines the important role foreign and national airlines play in promoting the tourism sector. It also emphasizes the importance of providing safe, efficient and sufficient Air Transport Services to all key tourism markets. In light of this, the government has adopted an Airlift Strategy for the regulation of air transport in support of Tourism Growth Strategy. Towards this end, the domestic and international air transport has been liberalized.

State of Liberalisation

The Republic of South Africa is the SSA's largest air transport market accounting for more than 51 percent of air transport activities in the region in 2011[7]. The aviation sector employs 20,700 people, of whom 9,223 are employed by South Africa Airways. There are eight institutions responsible for different aspects of the civil aviation administration and regulation in South Africa: Department of Transport, South African Civil Aviation Authority (SACAA), Airports Company of South Africa (ACSA), Air Traffic and Navigation Services, Competition Commission of South Africa, Air Services Licensing Council, International Air services Council and Regulating Committee of South Africa.

The SACAA's policy is aimed at regulating and overseeing the civil aviation industry in South Africa; safeguarding national interests and encouraging competition through the implementation of the Yamoussoukro Decision. SA has adopted a strategy for air transport liberalisation in which the promotion of competition in support of Tourism Growth and YD implementation are seen as key components. Fifth freedom right, third and fourth freedom rights form the basis negotiating the exchange of traffic rights. The country has bilaterally liberalized air services with several African countries where existing BASAs have been reviewed based on key components of the YD. For instance, in 2003, Kenya and South Africa agreed on open skies agreements on the Nairobi–Johannesburg route. As a result of liberalisation, passenger volumes increased by 69 percent between 2003 and 2005 (Myburgh, et al., 2006). Even though trade between both countries increased and accelerated, economic growth might be responsible for this change. It is clear that liberalisation played a major role in the process. The SA domestic market has also been liberalized since 1990. During the period from 1994 to 2004, passenger numbers increased by 80 percent, and there were new entrants in the market and consequently intense competition.

It is worth noting that YD has not been signed by the country and therefore not enforceable in the country. SA is for instance cautious at granting Fifth Freedom rights to African airlines. This is justified by the claim that some of the operators that may be granted authorization may not be up to the minimum ICAO safety and security standards which then might compromise safety.

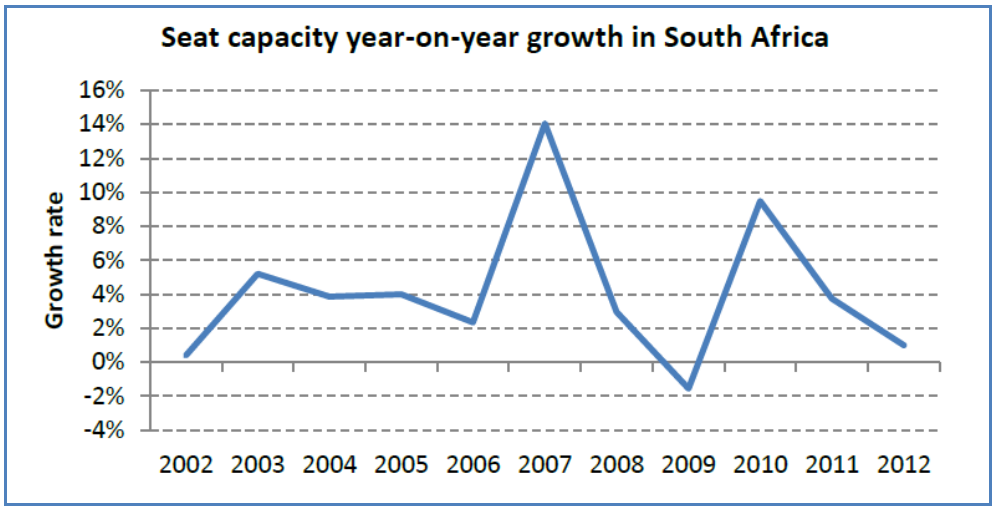
Airlines

Two wholly-government owned airlines (SAA and SA Express) and about seven privately owned airlines operate in SA with base in SA, of which four are South African carriers (SAA, Comair, Pelican Air and 1time). South Africa's air connectivity to the southern African countries is well developed, with direct flights from Johannesburg, Cape Town, Durban and Nelspruit. With 47 percent of the available seats, SAA is the largest carrier connecting South Africa and the southern Africa countries. The year-on-year capacity trend has been growing at an average of 4 percent between 2002 and 2012 (see Figure 9).

Figure 9: Seat capacity growth in South Africa: 2002-2012

[6] http://www.info.gov.za/aboutsa/tourism.htm

[7] In terms of passengers carried. Kenya (10.09%), Ethiopia (9.65%) and South Africa (51.57%) together account for 71.31% of all air passengers (domestic and international) in SSA.



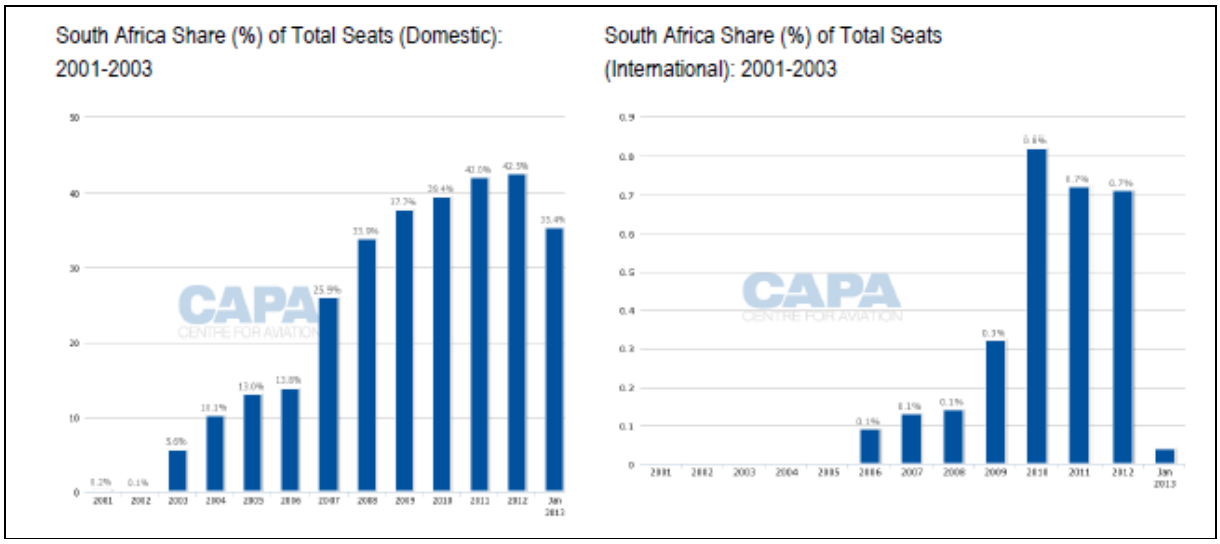
Source: OAG (2012)

Since its inception in 1934, South African Airways (SAA) has been serving as flag carrier. It is the largest domestic and international airline in South Africa. The airline joined Star Alliance in April 2006. SAA's is one of the leading carriers in Africa, with 38 non-stop passenger destinations across the continent, 10 direct intercontinental routes and 19 code share agreements (see table 5). The company accounts for approximately 38 percent of all international arrivals to South Africa. The company is deeply mired in debt. It lacks capital to purchase additional (modern) aircraft which may contribute to reduced operating costs and ensure it can respond to its African and Middle East competitors and meet demand. It should be noted that SAA enjoys strong backing and investment from the government, which in a supposedly deregulated domestic market only serves to destabilize competitive operations. Government interference also slows SAA decisions, hampering the progress of the carrier. As a result of strong competition to Europe from Middle Eastern carriers, the company has shifted focus to a more regional approach, but claimed that the strategy is constrained by the slow rate of liberalisation in the market. The Asian network is another focus of the carrier following the launch of non-stop service to Beijing in January 2012.

Low cost sector

South Africa has shown a high proportion of LCC capacity. The country's LCCs are South Africa´s subsidiary Mango, Kulula Airlines, Airtime Airlines and 1time (Skywise) (see Table 2). They operate 42.5 percent of the domestic flights (2012) and 0.7 percent of the international flights (2012) (see Figure 10). Kulula is based in Johannesburg and operates around 325 weekly services across 12 domestic and three international routes (Maurituis, Namibia and Zimbabwe). 1time provides around 250 services weekly across 9 domestic routes. It is 100 percent owned by 1time Holdings, a diversified aviation group with subsidiaries in the charter, maintenance and corporate aviation businesses. In 2008, it carried 1.6 million passengers, at 82 percent average load factor. Mango accounted for around 11 percent of domestic traffic in 2008, building on partnership arrangement and innovative promotion. Based in Durban, Airtime airlines is a new LCC operating flights between Durban, Cape Town, Port Elizabeth and Johannesburg since January 4, 2013.

Figure 10: Trends in LCC capacity in South Africa: 2001-Jan. 2013



Source: CAPA - Centre for Aviation with data provided by OAG a UBM Aviation business

Airports

South Africa has more than 100 civil airports. The country's ten principal airports, including the three international gateways of Johannesburg OR Tambo, Cape Town and Durban, are owned and operated by ACSA. Founded in 1993, ACSA was partially privatized in 1998, when 25,4 percent shareholding was sold to foreign and South African private sector shareholders. In 2005, the 20 percent foreign shareholding was sold to a South African investment company (CAPA, 2012). ACSA is a member of a joint venture with the private airport operator GVK Group and others who are in to manage and develop Mumbai International Airport in India.

OR (Oliver Reginald) Tambo International Airport in Johannesburg is the busiest airport in Africa in terms of passenger traffic (over 19 million passengers in 2011, employing about 18,000 people) and the air transport hub of Southern Africa. It is home to more than 40 regional, national and international airlines from five continents airlines handling over 50 percent of all traffic in South Africa. Moreover, with its 14 out of 20 international city pairs from SA, OR Tambo International Airport concentrates 87 percent of the seat capacity, followed by Durban with 12 percent of the available seats. Ongoing facility upgrades means that the airport will be able to handle up to 28 million passengers a year. The policy is to promote all international airports as entry points in South Africa. The ACSA has put in place various development programs to address the problem of inadequate airport infrastructure.

5.6. Airport charges

Airport charges are on average higher in studied countries in comparison to other regions, but they vary considerably with particularly high charges in Kenya. Tables 3 and 4 show the various passengers related taxes and charges (in 2011) that are applicable at some selected airports. As can be seen from Table 3 below, West African airports have highest charges, with charges as high as US $ 75 per passenger in Accra. Among the selected airports in East Africa, Nairobi and Entebbe have the highest charges at US $ 40 per passenger. Passengers in airports in the North African region enjoy the lowest passenger taxes with Tripoli charging US $ 5 followed by Khartoum, Casablanca and Cairo (US $ 12-15). However, as can be seen from Table 4, generally passengers departing from the selected African airports pay higher charges than passengers departing from the Middle East and selected European airports, Beirut being the exception (Chingosho, 2012). Unlike airports in developed countries where up to half of an airport's revenue can come from non-aviation activities, African airports are highly dependent on airside and passenger charges. Airport charges in and out of Addis Abeba, when compared to Nairobi Airport, provides a competitive advantage for Ethiopia as a tourism destination.

Table 3: Passenger Taxes and Charges (US $) – comparison at Selected African Airports

Southern Africa		West Africa		East Africa		North Africa	
Airport	Taxes/Charges	Airport	TX/Chrg	Airport	TX/Chrg	Airport	TX/Chrg
Luanda	20	Kinshasa	30.46	**Addis Abeba**	**25**	Cairo	15
Maputo	30	Accra	75	**Nairobi**	**40**	Tripoli	4.89
Johannesburg	**26.18**	Lagos	35	Kigali	30	Casablanca	15.18
Lusaka	25	Dakar	38.84	Entebbe	40	Khartoum	12.54

Source: Chingosho (2012)

Table 4: Passenger Taxes and Charges (US $) – comparison at Selected non-African Airports

Middle East		Asia/Pacific		Europe	
Airport	Taxes/Charges	Airport	TX/Chrg	Airport	TX/Chrg
Muscat	13.2	Mumbai	5.7	Paris-CDG	13.53
Dubai	20.42	Singapore	11.16	Frankfurt	29.81
Beirut	34	Guangzhou	10.72	Roma Fiumicino	10.95

Source: Chingosho (2012)

5.7. Commercialization / privatization of African Airports

Private participation in airports in Africa is not widespread. Though public provision of airport facilities and services remains dominant, some countries have in recent years embarked on airport privatization. Africa's first fully privatized airport was the Kilimanjaro International Airport (KIA). In fact, in late 1998, Kilimanjaro Airports Development Company (KADCO) began a 25 year concession to operate Tanzania's KIA in a public-private partnership (joint venture) with the Tanzanian Government. Airport management is being provided by Schiphol and operations management by UK CAA International Services. FHB airport Abidjan has been privatized with Aéroports de Paris as strategic investor. In South Africa, there is a small number of privately operated airports in addition to those of ACSA. In 2012, Lanseria Airport in northern Johannesburg was sold to a group of private investors, including Harith, Nozala and Public Investment Corporation (CAPA, 2012). In 2012, the Ghana Airports Company announced that it was seeking US$738.2 million to fund the public-private partnership upgrade projects at five airports. In 2009, OneJetOne, a LCC, stated that it was negotiating with the Kenya Airports Authority (KAA) to be allowed to demolish the Embakasi Airport and construct a modern, low-cost airport terminal on the site which it will own and control while sharing revenues with KAA under a "build operate and transfer" (BOT) arrangement. At the same period, the Nigerian Federal Government announced plans to upgrade four of the country's airports whereas the Civil Aviation Authority of Botswana stated that one of its top priorities was to operate the country's airports commercially.

5.8. Alliances among African airlines

Airlines alliances have developed in response to the changing environment brought about by the liberalisation of aviation markets. In most parts of the world, airlines have entered into alliance agreements to strengthen and extend the scope of their business and enhance their competitive position. For some small airlines their survival may depend on cooperation. Improved air transport links stemming from collaborative ventures would assist in developing the economy and tourism of the countries involved.

Table 5: Benchmarking of South African Airways, Ethiopian Airlines and Kenya Airways: November 2011

	South African Airways	Ethiopian Airlines	Kenyan Airways
Fleet Size	55	48 (36 on order)	36 (21 on order)
No. of African destinations	38	32	45
Capacity share of African continental market (2010)	11.2%	4.8%	3.4%
Home capacity (2010)	42.5%	82.3%	44.3%
No. of employees	9,223	5,635	4,834
Passengers per year (million)	8.1	4.6	3.64
Operating revenue (US$ million)	2,965	1,970	1,223
Net profit / loss (US$ million)	-4	42.7	18.8
Major hub airports	Johannesburg	Addis Abeba, Lomé	Jomo Kenyatta International Airport
Ownership	solely owned by the SA government	100% owned by the Ethiopian government	Individual shareholders: 30.94%; Air France-KLM: 26%; Kenyan govt: 23%; Kenyan investors: 14.2%: foreign investors: 5.86%.
Global airline alliance	Star Alliance (since 2006)	Star Alliance (since 2011)	SkyTeam (since 2007)
Codeshare partners	19	17	14

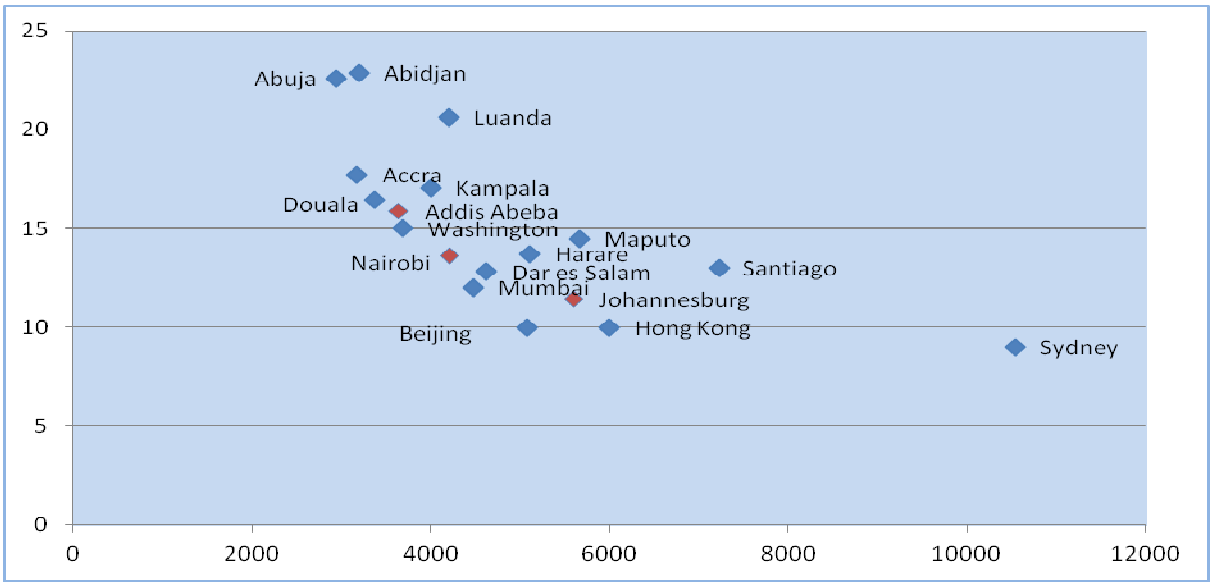
Source: author's compilation based on airlines' annual reports and CAPA (2012) analysis

The importance of greater collaboration and co-operation among African countries in the development of the African airline industry has been recognized. It is the spur behind earlier and current cooperative alliances. Earlier alliances in Africa include Air Afrique (1961-2002), East African Airlines (1960-1977), Alliance Air (1995-1999) South Africa Airways and Air Tanzania (an ownership alliance with SAA holding 49 percent in Air Tanzania, 2002-2006). There are currently few alliances and partnerships in Africa. Kenya Airways and Ethiopian have two regional operators, Precisionair of Tanzania and ASKY respectively. Kenya Airways Limited holds 41.23 percent equity interest (2011: 49 percent) whereas ET holds a 40 percent stake in ASKY. In 2001, Royal Air Maroc acquired 51 percent stake in Air Senegal International. In December 2012, RwandAir and Kenya Airways announced plans to form a strategic partnership and build stronger relations including improved synergies in scheduling, reservation systems and a combined frequent flyer program.

5.9. Pricing samples

Though airline flight routings and frequency decisions are driven by a mix of domestic, interregional, international, and cargo demands, it needs to be noted that factors such as air transport liberalisation, ease and cost of doing business also play a role (Twining-Ward, 2009). The author found that 66 percent of SSA countries either lacked major carrier connections or depended on one airline resulting into limited flights and frequency in 2009. A lack of competition on intercontinental flights results in high prices.

Figure 11: Air Fares (return fares) from London Heathrow to Selected Destinations – cents (euro)/ mile by city pair distance



Source: Author's compilation based on internet searches

The top long-haul international source markets are UK, France, US, Germany and Portugal. Figure 11 compares prices of return tickets from London Heathrow to selected destinations, expressed as cents per unit of distance (miles). Johannesburg (11 cents) is by far the cheapest destination in the surveyed countries for mile flown, followed by Kenya (14 cents) and Ethiopia (16 cents). The price differences are a result of a) lower density on routes and b) lower levels of competition created by the monopolistic policies supporting the Airlines. Destinations further away (such as Sydney, 9 cents) tend to be cheaper on a per mile basis. As mentioned above, in contrast to SA and Kenya, Ethiopia is still a restricted market.

5.10. The performance of tourism in the respective countries

Tourism performance assessment follows the work by Twining-Ward (2009). It is based on several ranked indicators such long-haul arrivals, length of stay, share of leisure and business travellers, tourism receipts and tourism direct contribution to GDP and employment as well as three subindices from The World Economic Forum's Travel and Tourism Competitiveness Index (TTCI). These are travel and tourism regulatory framework, travel and tourism business environment and infrastructure, and travel and tourism human, cultural, and natural resources. TTCI covers 26 of the 47 SSA countries. As can be seen from Table 6, South Africa is the highest performer in long-haul arrivals. It attracted over 1.3 million long-haul tourists in 2007, against 805,000 and 216,060 for Kenya and Ethiopia respectively. Ethiopia performed considerably better on tourist receipts than it does on tourist arrivals, receiving on average more dollars per arrival than Kenya and South Africa. There seems to be a strong correlation between the length of stay and a larger percentage of leisure visitors. Ethiopia has a higher number of business visitors and shorter length of stay.

Table 6: Performance of tourism by country

	South Africa	Kenya	Ethiopia	SSA (Total / Average)
Long-Haul Arrivals (SSA rank) – 2007	1,351,000 (1)	805,000 (3)	216,060 (11)	8,542,505
Length of Stay (days) – 2007	8.2	12.1	3.0	5.6
Leisure (%) – 2007	71.0	42.2	25.3	36.1
Business (%) – 2007	17.9	18.0	20.1	25.2
Total Tourism receipts (US$ billion) - 2011	34.7	4.5	3.5	88.4
Rank of Total Receipts per Arrival	11	14	1	-
Travel & Tourism's Direct Contribution to GDP (%) - 2011	2.7	5.7	4.5	2.6
Visitor Exports Contribution to Total Exports – 2011 (%)	8.7	18.6	45.7	5.6
Travel & Tourism' direct contribution to Employment – 2011	512,800	313,300	909,600	5,264,600
T&T contribution to GDP (2012-2022 , % growth pa)[1]	3.9	4.6	3.7	5.0
TTCI regulatory framework (Rank/26) – 2009	5	7	22	-
TTCI business environment and infrastructure (Rank/26) – 2009	2	6	10	-
TTCI human, cultural, and natural resources (Rank/26)	1	4	6	-
Ease of doing business (SSA Rank/44)	2	11	5	-
Sum of 6 rankings	22	45	55	-

Source: Twining-Ward (2009) and WTTC (2012)
Note: [1] WTTC estimation

Tourism's direct contribution to GDP in the studied countries varies between the highest in Kenya (5.7) and the lowest in South Africa (2.7) (WTTC, 2012). Visitor export accounted for 45.7 percent of total export in Ethiopia, 18.6 percent in kenya and 8.7 in South Africa (see Table 6). Ethiopia also performed better with regards to tourism direct contribution to Employment. According to WTTC economic forecast for 2012-2022, Kenya is expected to experience the highest rate of growth in contribution to GDP in the next ten Years (4.6 percent). Another factor that can significantly affect the tourism potential of a destination is the ease of doing business. Twining-Ward (2009) argues that having a business climate that is not conducive to international or domestic investment, or having poor ground transportation and low political support for tourism can have a harmful effect on destination development. Of the 26 SSA countries, South Africa performed considerably better on "ease of doing business", TTCI business environment and infrastructure, TTCI regulatory framework and TTCI human, cultural, and natural resources. Ethiopia performed less well than Kenya on the TTCI indicators, but better on "ease of doing business". It results from the analysis that a strong link may exist between the number of arrivals, the ease of doing business and tourism competitiveness.

6. Concluding Remarks

This paper has reviewed the literature on the role of air transport in the development of tourism and compiled current market trends of the African commercial aviation and tourism industry with a special focus on the cases of Ethiopia, Kenya and South Africa. One key factor within the control of governments that can significantly influence air traffic flows, costs and competitiveness is the decision on liberalisation of air transport. This research has shown that other things being equal, open skies policy is likely to play a prominent role in strengthening the interdependence between air transport and tourism development in Africa. Thereby having a national carrier is not a necessary precondition for the development of the tourism industry. Uganda, for example, has developed an open skies policy without having a strong carrier to benefit from liberalisation. Liberalisation has resulted in the continued growth of air services expressed in passengers and cargo carried (Schlumberger, 2010). It could, in other words, be the example that others follow.

While at the regional level significant progress has been made towards more market oriented aviation policies, at the pan-African level some markets are still restrictive and inconsistent with YD particularly with respect to the granting of 5th freedom rights. In countries where the YD has been implemented, new airlines have entered

markets that were in some cases abandoned by failing carriers. Liberalisation has also led to the development of private owned and low cost airlines. As far as air transport policy is concerned, there are a number of important similarities between South Africa, Kenya and Ethiopia. All three countries have strong airlines and have established an autonomous civil aviation authority. They have bilaterally liberalized air transport with a number of African States or revised the existing BASAs agreements to incorporate YD principles. Open Skies bilateral agreements have helped Kenya Airways, Ethiopian Airlines and South African Airways broadening their intra-Africa network. Some African countries perceive greater liberalisation of intra-African skies as a threat to the future of their airlines, fearing that this will benefit these big carriers. As international traffic has expanded in recent years, cooperation between African airlines has also been improving. In contrast to Ethiopia, South Africa and Kenya have liberalized the domestic air transport markets, which has been central to the development of low cost airlines in those countries.

The current good performance of the Kenyan and South African tourism industries reflects to some extent their strong aviation industries. However, it is encouraging to note that the Ethiopian government has set in train an initiative to develop the tourism industry. In order to achieve this well, it is necessary to collaborate with Ethiopian Airlines, tour operators and encourage foreign ownership. In fact, tourism development and air transport in SSA is broadly linked with the matter of harmonization of air transport and tourism development policies. In most African nations tourism is constrained by the limited offer of flights and the lack of convenient services. A number of problems that are likely to have a negative impact on tourism have been identified in this view. These include problems relative to high airfares and to insufficient service of scheduled or even charter services and problems relative to the inadequacy of airport infrastructures and, last but not least, problems relative to aviation safety.

With regards to infrastructure, the quality of land-based air transport infrastructure has been identified as representing the greatest challenge. Updating airports and terminals would promote competition with airports in other regions and by extension, increase capacity and lower prices. With respect to aviation safety, a regional approach through pooled resources and capacity building is necessary.

Some African routes suffer from weak capacity. Hence the importance of creating airport hubs, at which traffic can congregate. A regional hub airport would lead to improved regional linkages and connectivity. In other words, the creation of regional hubs and the resulting expansion of services will enable airlines to restructure their networks by abandoning direct routes, which then will pave the way for higher load factor and for economies of scale. Participation in hubs would assist improve regional and international connectivity to tourist-generating markets, which would in turn strengthen the region's potential for tourism development. For instance, although countries such as Botswana, Namibia, Lesotho, Swaziland, The Gambia, and Zambia all have poor international flight connections, their tourism industries are well developed owing to their proximity to regional hubs (Johannesburg and Dakar) and frequent regional or charter connections. In Southern Africa, Johannesburg is in fact the only airport that already provides regional links, being a transit for flights to Namibia, Zimbabwe, Mozambique, Botswana, Lesotho, Zambia and Swaziland. In Eastern Africa, Addis Abeba and Nairobi can be considered as regional hubs. There is need therefore, to strengthen the capacity of these airports. Furthermore, the success of hub strategies hinges of linking them to the strategies of airlines such as having the correct scheduling and acquiring the proper aircraft. Tourism development stemming from efficient transport network will, in the presence of strong linkage with the local economy, not only create direct benefits for tourism-related businesses such as hotels, visitor attractions, restaurants etc., but also indirect benefits in other sectors such as agriculture, construction and manufacturing and therefore contribute to poverty reduction.

7. References

Abeyratne, R. I. R. (1993), "Air transport tax and its consequences on tourism", *Annals of Tourism Research*, 20, pp. 450-460.

Abeyratne, R. I. R. (1999), "Management of the environmental impact of tourism and air transport on small island developing states", *Journal of Air Transport Management*, 5, pp. 31-37.

Air Transport Action Group (2003), The contribution of air transport to sustainable development in Africa, [online] Available at: <http://www.library.nhs.uk/guidelinesFinder> [Accessed Marchr 2009].

Bieger, T. & Wittmer, A. (2006), "Air transport and tourism—Perspectives and challenges for destinations, airlines and governments", *Journal of Air Transport Management*, 12, pp. 40–46.

Bofinger, H.C. (2009), An Unsteady Course: Growth and Challenges in Africa's Air Transport Industry, AICD Background Paper 16, Africa Region, World Bank, Washington, DC.

Brons, M, E. Pels, P. Nijkamp & Rietveld, P. (2002), "Price elasticities of demand for passenger air travel: a meta-analysis", *Journal of Air Transport Management*, 8, pp. 165–175.

Centre for Asia Pacific Aviation (2009). (2009): Global LCC Outlook Report. (electronic only).

CAPA (2012), Kenya Airways suggests merger with Ethiopian and South African as part of push for greater unity, [online] Available at: <http://centreforaviation.com/analysis/kenya-airways-suggests-merger-with-ethiopian-and-south-african-as-part-of-push-for-greater-unity-89947> [Accessed August 2012].

Castillo-Manzano, J. I., López-Valpuesta, L., González-Laxe, F. (2011), "The effects of the LCC boom on the urban tourism fabric: The viewpoint of tourism managers", *Tourism Management*, 32 (5), pp. 1085–1095.

Chingosho E. (2012): Taxes and charges in african aviation, [online] Available at: <http://www.afcac.org/en/documents/conferences/october2012/afra.pdf> [Accessed October 2012].

Crouch, G.I. (1995), "A meta-analysis of tourism demand", *Annals of Tourism Research*, 22(1), pp.103-118.

Davison, L. & T. Ryley (2010), "Tourism destination preferences of low-cost airline users in the East Midlands", *Journal of Transport Geography*, 18(3), pp. 458–465.

Debbage, K.G. (2002), Airport Runway Slots: Limits to Growth, Annals of Tourism Research, 29(4), pp. 933–951.

Doganis, R. (2006), The Airline Business, 2nd edition, Routledge, Abingdon.

Duval, D.T. & Schiff, A. (2011), "Effect of air services availability on international visitors to New Zealand, Journal of Air Transport Management", 17(3), pp. 175–180.

Findlay, C. C. & Forsyth, P. (1988), "Trade in Air Transport and Tourism Services", in Pacific Trade Services, Eds. L.V. Castle and C.C. Findlay, Sydney: Allen and Unwin.

Forsyth, P. (2006a), "Tourism benefits and aviation policy", *Journal of Air Transport Management*, 12, pp 3-13.

Forsyth, P. (2006b), "Aviation and Tourism", in International Handbook on the Economic of Tourism, Eds. L. Dwyer and P. Forsyth, Cheltenham, UK: Edward Elgar Publishing Limited.

Dwyer, L., Forsyth, P. & Dwyer, W. (2010), Tourism Economics and Policy, Bristol, UK; Tonawanda, NY: Channel View Publications.

Foster, V. & Morella E. (2010), Ethiopia's Infrastructure: A Continental Perspective, World Bank, Washington, D.C.

Gillen, D. W., W. G. Morrison & Stewart, C. (2003), "Air Travel Demand Elasticities: Concepts, Issues and Measurement," Department of Finance, Government of Canada.

Graham, A., Papatheodorou, A. & P. Forsyth (2008), Aviation and tourism: implications for leisure travel, Ashgate, Aldershot.

ICAO (2003), Background to experiences of liberalisation in Africa. [online] Available at: <http://www.icao.int/sustainability/CaseStudies/StatesReplies/AfricaBackground_En.pdf>[Accessed November 2012].

InterVISTA -ga^2 (2006), The Economic Impact of Air Service Liberalisation. [online] Available at: <http://www.agenda-for-freedom.aero/library/pages/studies.aspx> [Accessed June 2012].

Kadhoroo, A.J. (2007), "Does transport infrastructure matter in overall tourism development? Evidence from a sample of island economies", *Tourism Economics*, 13(4), pp. 675–684.

Khadoroo, J. & B. Seetanah (2008), The role of transport infrastructure in international tourism development: A gravity model, approach, *Tourism Management*, 29, pp. 831–840.

Laws, E. (1997), "Managing Packaged Tourism", Thomson, London.

Ministry of Transport Kenya (2010), Sessional paper on: Integrated national transport policy. [online] Available at: <http://www.transport.go.ke/~transpor/images/stories/mot/sessional.pdf> [Accessed JFebruary 2011].
Mings, R.C. & McHugh, K.E. (1992), "The Spatial Configuration of Travel to Yellowstone National Park", *Journal of Travel Research*, 30(4), pp.38-46.
Morley, C. L. (2003), "Impacts of international airline alliances on tourism", Tourism Economics, 9(1), pp. 31-51.
Morley, C. L. (2007), "Implications for regional destinations of new airline strategies", *Tourism Economics*, 13, pp. 475-480 , Research note.
Myburgh,A., Fathima ,S. Fatima F., & James , H. (2006), "Clear Skies over Southern Africa. Wood mead", South Africa: ComMark Trust.
Ndhlovu and Ricove, 2009… Assessment of Potential Impact of Implementation of the Yamoussoukro Decision on Open Skies Policy in the SADC Region. [online] Available at: < http://pdf.usaid.gov/pdf_docs/PNADU389.pdf> [Accessed February 2011].
OAG (2012), Africa Aviation Market Analysis. [online] Available at: < http://www.oag.com/graphics/africa-aviation-market-analysis.pdf> [Accessed November 2012].
Oum, T.H., Waters, W.G., Yong, J.S., 1992. Concepts of price elasticities of transport demand and recent empirical estimates.Journal of Transport Economics and Policy 26(2), pp. 139–154.
Papatheodorou, A. (2002), "Civil Aviation Regime and Leisure Tourism in Europe.", *Journal of Air Transport Management,* 8(6), pp. 381-388.
Pentelowa, L. and Scott, D. J. (2011), Aviation's inclusion in international climate policy regimes: Implications for the Caribbean tourism industry, *Journal of Air Transport Management*, 17(3), pp. 199–205.
Raguraman, K. (1997), "Estimating the net economic impact of air services", *Annals of Tourism Research*, 24 (3), pp. 658-671.
Rey, B., Myro, R.L. & Galera, A, (2011), "Effect of low-cost airlines on tourism in Spain. A dynamic panel data model", *Journal of Air Transport Management*, 17(3), pp. 163–167.
Schlumberger, C. E., (2010), Open Skies for Africa: Implementing the Yamoussoukro Decision. Washington DC.: World Bank.
Sinclair, T.(1998), "Tourism and economic development: A survey", *Journal of Development Studies*, 34(5), p.1-51.
Prideaux, B. (2000), "The role of the transport system in destination development", *Tourism Management*, 21, pp. 53-63.
Turton B.J. & Mutambirwa C.C. (1996), "Air transport services and the expansion of international tourism in Twining-Zimbabwe", *Tourism Management*, 17(6), pp. 453-462.
Twining-Ward, L. (2009), Sub Saharan Africa Tourism Industry Research, World Bank, Washington, D.C..
UNWTO (2012) Tourism Highlights. [online] Available at: <, http://dtxtq4w60xqpw.cloudfront.net/sites/all/files/docpdf/unwtohighlights12enhr_1.pdf> [Accessed January 2013].
Warnock-Smith, D. & Morrell, P. (2008), "Air transport liberalisation and traffic growth in tourism-dependent economies: A case-history of some US-Caribbean markets", *Journal of Air Transport Management*, 14(2), pp. 82–91.
Warnock-Smith, D. & O'Connell, J.F. (2011), "The impact of air policy on incoming tourist traffic: the contrasting cases of the Caribbean Community and the Middle-East", *Journal of Transport Geography*, 19(2), pp. 265–274.
Witt, S. F., & Witt, C. A. (1995), "Forecasting tourism demand: a review of empirical research", *International Journal of Forecasting*, 11, pp. 447–475.
World Trade Organisation (1994), Tourism and Aviation Policies, Balancing the Benefits, Madrid: WTO.
WTTC (2012). The Economic Impact Travel & Tourism 2012: Sub Saharan Africa [online] Available at: <http://www.wttc.org/site_media/uploads/downloads/sub_saharan_africa2012.pdf> [Accessed January 2013].