

Introduction

Transport in any society is one of the most crucial aspects for the success of social and economic activities and interaction. The development and maintenance of means transport has seen governments and corporations invest billions to ensure seamless transit of both cargo and people. The transport sector is widely diversified, with means of transport ranging from road and railway to air. This report will seek to analyze the transport sector, with specific emphasis on air transport. It will delve into the sector from a global perspective and narrow down to the Kenyan case, where the sector players, challenges and opportunities that exist and regulations in Kenya will be discussed. The report will then provide a conclusive summary with the key points.

Global and African Overview

Millions of trips are made annually via air for reasons ranging from business to state visits and for pleasure. Air transport has become the fastest means through which to traverse continents and move within national borders with ease. Commercial flight is a billion-dollar business the world over. In 2014, the top 100 airlines had a collective revenue of over \$700 billion. In the same year, among the top airlines by revenue globally were American Airlines Group (USA), Delta Air Lines (USA), Lufthansa Group (Germany), United Continental Holdings (USA) and Air France (France) respectively. Delta Air Lines retained the top position globally for the highest passenger numbers carried.

Sub-Saharan Africa has been on the forefront as far as air traffic and air transport is concerned in Africa. With 31 airports certified as being in excellent condition and 50 in very good condition as compared to North Africa's 28 and 17 respectively, Sub-Saharan Africa is on the path to

immense growth. Between 2001 and 2007, international traffic in the region grew 6.5% on average. The airlines with the highest international traffic through their hubs in Africa were South African Airways, Kenya Airways and Ethiopia Airlines with 33%, 70% and 83% respectively. Kenya Airways and Ethiopia Airlines have also been noted to be the most active in the development of new routes on which they operate as the sole carriers.

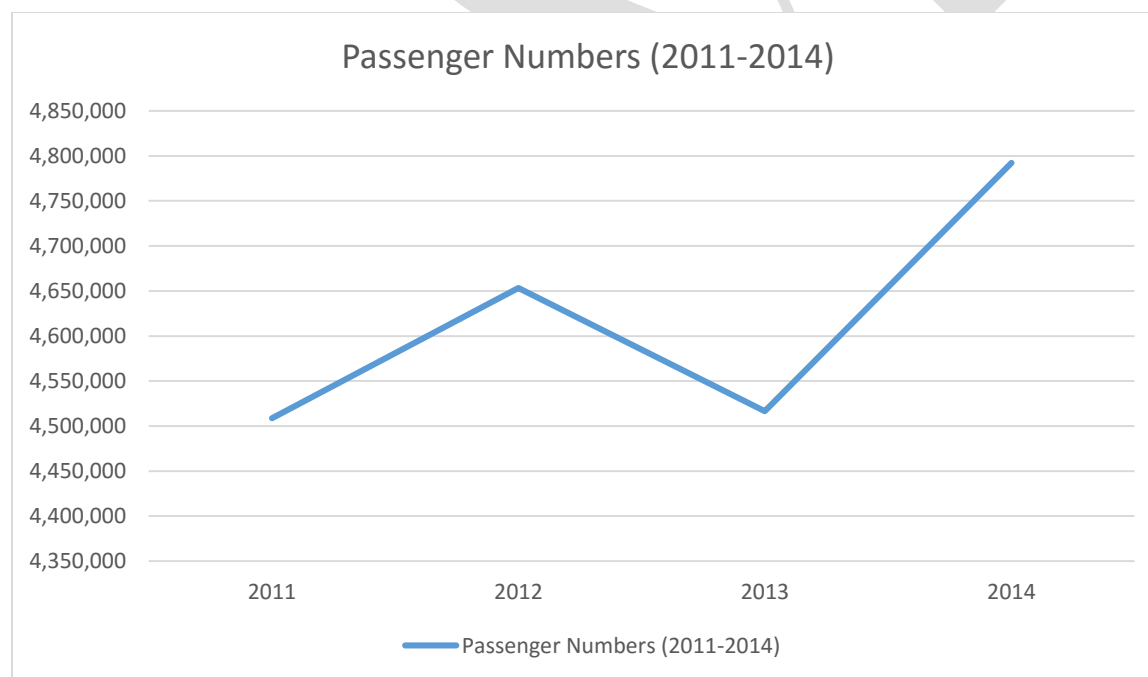
The Case in Kenya

In Kenya, air transport is a booming sector, with some of the busiest airports in East Africa. Foreign and domestic flights operate in the country, with Kenya Airways (abbreviated KQ) serving as the national carrier under the tag line “The Pride of Africa”. It was formed in 1977 following the disbandment of East African Airways, which was jointly owned and run by Kenya, Uganda and Tanzania. Currently, Kenya Airways is a public company and is listed in the Nairobi Securities Exchange. The national carrier is one of the 20 full members of SkyTeam, a global airline alliance based in Haarlemmermeer, Netherlands.

Kenya has 4 major airports; Jomo Kenyatta International Airport (JKIA) in Nairobi, Moi International Airport in Mombasa, Kisumu International Airport in Kisumu and Eldoret International Airport in Eldoret. JKIA is the largest airport in the country, providing take-off and landing as well as parking services for domestic and international aircraft. As at 2014, total passenger numbers handled at the airport stood at 6.4 million. Moi International Airport is the second largest and second most important airport in Kenya. while accommodating take-offs and landings, it is also an important tourist handling airport and is the main re-routing destination in the event that JKIA is inaccessible. It handled 1.4 million passengers in 2014, up from 1.3 million in 2013. There are also a number of smaller airports and airstrips which serve smaller

aircraft and specialize in domestic flights. These include Amboseli Airport, Lamu/Manda Airport, Malindi Airport, Mandera Airport, Mara Serena Airport, Nanyuki Airstrip, Nyeri Airport and Wilson Airport, among others.

Passenger flights account for the bulk of aircraft trips in Kenya, with cargo such as horticultural produce and other light agricultural exports like *khat* to Somalia accounting for the remaining flights. There is currently no carrier which exclusively deals with goods and packages and express mail, as is the case with the United States Postal Service. Passenger numbers have remained largely constant in both foreign and domestic flights. In the period 2011 to 2014, the figures oscillated as follows; 4,508,698 in 2011, 4,653,460 in 2012, 4,516,492 in 2013 and 4,792,267 in 2014. The table below gives a graphical representation of this information.



Between January and June of 2013 and 2014, statistical comparisons indicate that there was a significant drop in departures and arrivals from the country's major airports. JKIA arrivals

decreased from 409,130 to 358,977 while those in Moi International Airport dipped from 86,530 to 69,246. Departures from JKIA went down from 895,125 to 878,236. Reasons contributing to these reductions are discussed in a later section.

Competitive Environment

The competitive environment will only consider airlines which are locally based and will exclude internationally-based airlines which operate in the country. The main players in the Kenyan scene will be discussed, with other smaller airlines being mentioned as well.

Kenya Airways

KQ exists as the national carrier in Kenya, which was established in 1977. Of the local firms, KQ is the largest by revenue and destination range as well as staffing. The company commands the largest market share in the country as of 2016. It also operates the largest aircraft, with a preference for Boeing airplanes. It is a public company, listed and trading in the Nairobi Securities Exchange. It provides both domestic and foreign flights within and outside the African continent. As of January 2015, Kenya Airways ranked 6th in Africa. The company has both passenger and cargo transit services. Despite being the largest carrier in Kenya, KQ has been rocked by allegations of mismanagement, which led the company to a KES25.7 billion loss in 2015.

Fly540

Fly540 was established in 2005 and exists as a private company. It is one of Kenya's low-cost passenger airlines, offering mostly domestic flights as well as flights to Juba and Zanzibar. It

operates from JKIA and Wilson Airport. The fleet includes the Bombardier, Canadair CL-600, DC-9, and the Fokker F28. Fly540 is in partnership with Fly-SAX and Qatar Airways.

Jambojet

Jambojet is a Kenya Airways brand and a low-cost passenger airline operating in Kenya. It bases its operations at JKIA. The airline began operations in 2014. Its flights are domestic, with locations such as Nairobi, Ukunda, Kisumu and Malindi, among others. The company operates under the tagline “Now You Can Fly”. It operates a fleet of Boeing 737-300 airplanes and a Bombardier Dash 8.

Fly-SAX

Fly-SAX is a low-cost passenger airline established in 2010 and which specializes in premium safaris and private charters. Its fleet includes a Cessna 208 Caravan, Fokker F28, DC-9, B1900 and CRJ 200ER, which are mostly small aircraft. Safari destinations include Amboseli and Maasai Mara, beach destinations Comoros, Lamu, Malindi and Mombasa and other destinations are Lokichoggio, Wajir and Kitale. Fly-SAX operates from JKIA and Wilson Airport.

fastjet

fastjet (not Fastjet) is a low-cost Kenyan passenger airline which was launched in 2012. It operates flights both locally and across East and South Africa, with destinations such as Johannesburg, Lusaka, Harare, Mbeya, Entebbe, Zanzibar and Nairobi. fastjet has a fleet of five Airbus A319 aircraft. Currently, fastjet is arguably the lowest cost airline in the country.

There are several other smaller airlines in operation in Kenya, a majority of which operate from Wilson Airport and a few from JKIA and Moi International Airport. Some of these include Airlink (Kenya), Freedom Airline Express, Great Airways, Kijipwa Aviation, Safe Air (Kenya) and Tamarind Air. These airlines fly domestically and have small aircraft in their fleets.

Helicopter charter services are also in place in Kenya. they allow clients to hire helicopters for a range of private uses such as corporate, surveying and mapping, entertainment and filming or wedding and event planning reasons. Some of the involved entities include Corporate Helicopters, Helicopter Charter East Africa, Rainbow Air Charters Kenya and Airkenya.

Flight Schools and Training Institutions

Kenya has a number of flight schools and aviation training institutions which meet international standards. Kenya School of Flying offers courses in Private Pilot's License (PPL), Commercial Pilot's License (CPL) and Initial Multi Engine/Instrument Rating (M/IR). It is located in Nairobi, Malindi, Ukunda and Orly and was set up in 1992.

The Nairobi Aviation College with branches in Nairobi, Mombasa, Kitale Eldoret and Kisumu offers training courses in a number of aircraft related fields. These include aeronautical engineering, aviation maintenance, airport operations, flight dispatch, cargo rating and cargo marketing. The institution was set up in 1999.

The East Africa School of Aviation exists as the training department of the KCAA. It was established in 1954 and offers training in a number of courses at postgraduate, undergraduate and diploma levels. It also offers aviation professional courses such as Aeronautical Information Service (AIS), Air Traffic Services, Aviation Safety and Aviation Security (AVSEC). EASA has

accreditation from the Ministry of Education, KCAA, International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA).

Ninety-Nines Flying School is located in Wilson Airport in Nairobi. It was established in 1975 and offers training in CPL, PPL, Airline Transport Pilot License (ATPL), M/IR and also produces Qualified Flying Instructors (QFI). The institution also provides simulator training.

Standards Aviation is located in Nairobi and it provides training in CPL, PPL, M/IR and ATPL. It is approved by the KCAA and holds an Air Service License.

Challenges

Although individual carriers face varying challenges, this report has captured the main ones which cut across the board and affect all the involved players uniformly.

Low Demand

Due to the majority of the Kenyan population falling in the middle-to-low income bracket, there has been comparatively low demand for air transport. While there are frequent fliers, the launch of air carrier services in addition to the existing passenger flights is harbored by the inability to afford such services. Owing to low demand for air transport, there have been a number of withdrawals by firms previously operating flights in the country. The most notable case is the exit of Bahraini national carrier Gulf Air and Virgin Atlantic in 2012 citing low passenger numbers over a prolonged period.

High Operating Costs

Owing to the Kenyan shilling's performance, operation costs for airlines are volatile. Fuel is bought in American dollars and hence a weak shilling is detrimental to airlines operators' efforts to keep costs low. This is especially considering the capital-intensive nature of the air transport sector. Among the reasons cited by Virgin Atlantic in its 2012 market exit from Kenya was the high cost of fuel. Between 2010 and 2012, the shilling's value reached values of just under KES100 to the dollar, translating into higher costs for airlines.

Corruption and Poor Management Allegations

The national carrier Kenya Airways has been rocked by allegations of corruption and fraudulent dealings. This is after it posted a record KES25.7 billion (\$253.4 million) net loss in the year ended March 2015. Owing to the diminished performance, Kenya Airways has been forced to sell off some of its assets, such as its 2016 sale of the Heathrow Airport landing slot for KES7.5 billion (\$73.9 million). Mismanagement allegations have frequently been associated with smaller carriers in the country as well, such as Fly540 over employee sackings and fastjet over unpaid funds in the purchase of its stake in Fly540.

Expansion Challenges

Although Jomo Kenyatta International Airport is the largest in the country, it still lacks the capacity to accommodate certain aircraft since redesigning would need to be done. Kenya Airways uses Boeing airplanes and has the largest aircraft, the Boeing 777-300ER. Much larger aircraft such as the Airbus A380 cannot land at JKIA owing to their size and weight, which would call for runway and airport expansion to accommodate it.

Insecurity

In recent times the country has experienced cases of terror-related attacks, the worst being in the period between 2013 and 2015. These include the Westgate Mall and the Garissa University College attacks with 67 and 147 fatalities respectively. Several countries issued travel advisories to their citizens, resulting in significant reductions in arrivals into the country. Not only did this affect the tourism industry, it also dented revenues to both foreign and domestic carriers.

High Taxation

The airline industry and air travel in Kenya is placed out of reach by the high tax rates imposed on carriers, which are subsequently passed on to passengers and cargo owners. Some of the taxes and fees charged include value added tax, fuel levy, landing fees and parking fees, which jointly take up about 50% of ticket prices. In a bid to protect profits, airline operators end up passing along some of these costs to their customers, which raises ticket prices and consequently affects business volumes.

Opportunities*Exclusive Courier Services*

The absence of a dedicated air courier service in Kenya provides an opening in the market which can be taken advantage of by potential investors. With such dedicated services, packages and parcels can be delivered even faster than is the case with road couriers. It will also set Kenya apart as a rapidly developing economy both in Africa and globally. As at 2016, only South Africa has a properly developed and functional air courier service in Africa.

Airport Upgrades

While JKIA meets international standards, the remaining international airports still lag slightly behind. With the further upgrade of Moi International Airport, Kisumu International Airport and Eldoret International Airport to handle large planes, the pressure would be taken off JKIA and there would be a distribution of passengers thus easing processing. Additionally, airstrips in the country can be upgraded, especially those which frequent tourist chartered flights, so as to accommodate more tourists. JKIA would also be well-served by an upgrade, which would allow it to handle much bigger airplanes than the current Boeing fleet, such as Airbus airplanes which are not only bigger but also heavier.

Subsidies

The taxes levied on airlines in the country have rendered their services expensive and mostly out of reach. Although this retains the premium nature of air transport, the more expensive the tickets become the more exclusive air transport will be. Consequently, this will slow down airlines' earnings due to reduced customer numbers. The Government of Kenya in conjunction with such authorities as the KCAA should devise means to mitigate taxation and cap them so as to ensure airlines can compete favorably.

Increased Training Institutions

Although there is a significant number of flight schools in Kenya, there is only a handful of aeronautical engineering institutions, with the existing ones offering it with other courses as opposed to as a specialty. Currently existing institutions are the Technical University of Kenya with diploma and degree courses and Skypath Aviation College. The establishment of more

aeronautical engineering institutions will advance the country's aviation technology and avail an expansive crew of maintenance and development personnel. It will also discourage students pursuing the course from venturing overseas, where they stand a higher chance of being poached to work for international companies as opposed to working to improve the local aviation industry.

Regulation

The regulation of air transport in Kenya is done by the Kenya Civil Aviation Authority (KCAA), which was established in 2002 by the Civil Aviation (Amendment) Act, 2002. KCAA's mandate includes regulation and oversight of aviation safety, economic regulation, civil aviation development, navigation service provision and the it is also involved in the training of personnel. KCAA is a state corporation which falls under the Kenyan Ministry of Transport and Infrastructure.

The establishment of private airstrips is regulated and overseen by the Kenya Airports Authority (KAA). Established under the KAA Act Cap 395 of the Laws of Kenya in 1991, KAA also manages international and domestic airports in Kenya as well as airstrips. Its other functions include the construction and maintenance of aero domes on agency basis or otherwise, provision of amenities for passengers or other persons using the Authority's facilities and the provision of rescue and firefighting equipment. KAA is also a state corporation under the Ministry of Transport and Infrastructure.

The Kenyan Ministry of Transport and Infrastructure is not directly involved in the regulation of air transport, except through KCAA and KAA. However, the Ministry does provide investigation

into aviation accidents and incidents through the Air Accident Investigation Division of Kenya (AAID). It investigates accidents and serious incidents involving Kenyan aircraft overseas as well.

Conclusion

Air transport in Kenya is well supported by 4 major international airports and a series of smaller airports and airstrips throughout the country. This has helped increase the penetration of air transport across the country. However, the air transport sector still faces a number of hurdles, key among them being the cost of operation and the taxes levied on airlines. These have been passed on to customers in form of higher ticket prices, which has had customers shy off or rely on foreign airlines to make savings. There are also a number of flight training institutions which have availed pilots and cabin crews, but there is a shortage of dedicated aeronautical engineering institutions. This has seen the country lose intellectuals who get poached upon completing studies in foreign countries. There is also healthy competition in the Kenyan aviation sector, with flight companies and airlines offering ever cheaper rates to woo customers. With the growth of Kenya as one of the most competitive economies in East and Central Africa, the air transport sector in Kenya is a viable investment option with projected promising returns in the future.