AIR TRANSPORT IN MAJOR AIRLINES IN AFRICA:

CHALLENGES AND PROSPECTS

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AIR TRANSPORT IN MAJOR AIRLINES IN AFRICA: CHALLENGES AND PROSPECTS

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This is to certify that the thesis prepared by KidaneGetachew, entitled:*Air Transport In major Airlines In Africa: Challenges And Prospects* and submitted in partial fulfilment of the requirements for the Degree of the Master of Arts in African and Oriental Studies specialization on Human and Economic Development in Africa complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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ABSTRACT

Air transport in major airlines in Africa: challenges and prospects

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The significance of air transport in promoting growth and development in developing countries is very high. The African air transport industry in general and the African airline industry in particular have faced challenges of a multitude nature. As such this research is conducted to show the challenges and prospects that are faced by major African airlines. One challenge that did not get adequate attention by studies reviewed is the competition African airlines face from foreign airlines. To this effect, the market share of African and Foreign airlines for the period 2006 to 2012 is analyzed in terms of seat capacity and flights per week in their intercontinental and intra-continental operations. Also comments from LinkedIn African aviation discussion forums are used to identify and list out the major challenges of the African air transport. In the intra-Africa operations the African airlines are observed to dominate the market with an average market share of 95%. In the intercontinental operations African airlines have lost an average of 12% seat capacity for Middle East and European carriers. Furthermore interviews with African airlines executives show the fact that the competition from the foreign carriers especially that of the Middle East is at a critical stage. However, the prospect of the African airlines is not gloomy. Given the growing economy and middle class in Africa, Boeing forecasts a growth of 5.7% for African airline traffic. But this is only possible if the African airlines are able to work together and compete with the giant carriers. To this end the African states and airline Association should work together in areas where they can pool resources and improve efficiency.

Key words; African Airlines, air transport, challenges and prospects in Aviation

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List of ACRONYMS

AFRAA	African Airlines Association
AFCAC	African Civil Aviation Commission
ANOVA	Analysis of Variance
ATAG	Air Transport Action Group
AU	African Union
CEO	Chief Executive Officer
EAA	East African Airline
ET	Ethiopian Airlines
FAA	Federal Aviation Administration
GDP	Gross Domestic Product
IAG	International Airlines Group
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
LAN	LAN Airlines
OECD	Organization for Economic Cooperation andDevelopment
SAA	South African Airways
TAM	TAMLinhasAeraes
TACA	TACA international Airlines
TK	Turkish Airlines
TWA	Trans world airlines
UNECA	United Nations Economic Commission for Africa
USA	United States of America
YD	Yamoussoukro Decision

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Air transport has revolutionized global transportation by dramatically reducing the time needed to travel great distances(Oxford Economic Forecasting, 2003). Journeys across nations or oceans that might have taken weeks or months can now be made in a matter of hours. In today's world Air transportation has become a major part of the world's transportation system.

The African continent with its vast land size ranks second of earth's seven continents after Asia. The continent comprises 56 separate countries laid out in area approximately two and a half times larger than the U.S., where a flight southward from Morocco to South Africa might easily consume 10 flying hours (Gavin, 2013).

A rapid global network of transport which is indispensable for today's global business and tourism is provided by air transport. It also improves productivity and facilitates world trade by allowing access to international markets and encouraging investment and innovation (Air Transport Action Group, ATAG, 2008).Based on ATAG (2010)the air transport industry has contributed about 3.5% of the global GDP which amounts to 2.2 trillion dollars in 2010 alone. Although the share of Africa stands at 3% of the global GDP in 2010, it is projected to grow at a very high rate than other regions. Hence Air transport is considered as a catalyst for economic growth in developing countries specially Africa (UNECA, 2001).

The first encounter of the African continent with air transport as we know it today dates back to 1925 when the Belgians started a notable regional operation in the Congo. After 9 years South African airways was established as a government department. Following suit several African countries saw their first national airlines in the 1920s and 30s although under colonial administrations (Peter, 1967).

After independence most of the new common wealth countries took over existing regional carriers and expand them as their own flag carriers - as national airlines were recognized as one of the essential trappings of independence regardless of the economic consequences (Peter, 1967). An exception to this is the development of Air transport in Ethiopia which started after the end of the Second World War where months after the war the national carrier (Ethiopian airlines) was established with some help from the American Transcontinental and Western Air (TWA) (Semret, 2006).

The air transport sector involves many stakeholders which play active role for the provision of safe and economic air transport. Although the categorization of the subsectors and stakeholders differs from continent to continent and the level of development of the industry at large the common and key players remains to be the same.

Among these stakeholders the primary ones are the Airlines (owners of aircrafts and fleets), Airports (enterprises that provide passenger and cargo terminals with landing fields), civil Aviation Authorities (mostly governmental agencies which overlook and regulate the safety, security and economic aspects of air transport) and Aerospace (an industry mainly involved in the manufacturing of aircrafts and parts)among others. It also includes other businesses such as fuel suppliers, ground handlers, engine manufacturers, interior suppliers and business jet operations that are linked directly or indirectly to the air transport industry (ATAG, 2008).

Since its inception air transport in Africa has seen many challenges related to the political, socio-economic and historic situations of the continent. In earlier years of its development the challenges were related to the colonization of many of the countries in the continent. Air transport in those early periods was only a means to serve and further strengthen the colonial interests of the colonizers. In general prior to their independence most of the African countries had air services that were completely dependent on European relationships or agreements and only after 1960s when the colonies become independent did they startto negotiate and begin their own air services (Schulumberger, 2010).

1.2 Statement of the problem

The African continent specially the sub-Saharan regionhas verylowhuman development indicator compared to most of the other regions of the world (World Bank Group, 2012). The air transport sub-sector is also one of the areas that lag behindalthough there is a dichotomy in its speed of progress especially in sub-Saharan countries(Oladele, 2005).

It is well known thatair transport stimulates economic development through promoting trade, tourism, innovation and employment. But the African continent seems to exhibit contradictions and dichotomy in the air transport sector. For instance, despitea third of African countries being landlocked and the existence of a large land-mass and population favorable for air transport, air transport in Africa is the least developed in the world (Megersa, 2013).In addition to this very few countries (Ethiopia, Kenya, Mauritius and South Africa) are relatively successful in Air transport while most of the countries in Africa had failed in establishing a viable and sustainable air transport industry which explains the dichotomy (Oladele, 2005).

It has for long been claimed that the main impediment of the African air transport of the 21st century is the very sluggish progress of the liberalization process of the sub-sector. Although the concern that the intra-African air transport liberalization might result in the disappearance of the small airlines by the anti-competitive nature of the bigger ones is acknowledged, support for full liberalization measures and the implementation of the Yamoussoukro decision is high (UNECA,2001; Megersa, 2013; ICAO,2013). The Yamoussoukro decision is an arrangement that consolidated the different liberalization initiatives taken by African states at the regional, bilateral and continental levels (Megersa, 2013).

To show the economic effects of Air transport liberalization in Africa, Megersa (2013) run an econometric analysis on two supply side variables; fare and departure frequency. He found that routes that have experienced some type of liberalization show up to 40% increase in departure frequency when compared to those that are restricted by bilateral agreements.He found out also that the liberalization variables used do not reveal the presence of market dominance by bigger airlines as feared by some countries.

Evaristus(2008) showed that the policy adopted after independence by African countries to regulate the air transport industry was bilateralism with emphasis on reciprocity. This created a bottleneck for the national carriers. He further explains, the airlines were seen and managed as a status symbol than as a commercial enterprise which resulted in political interference and mismanagement of the national airlines which according to Evaristus (2008) leads to the huge losses and a big drain of the public coffers. Hence he recommends for air services than airlines for Africa specially the sub- Saharan region.

In general, research on African Air transport mostly tends to focus on the liberalization aspect of air transport in the continent (UNECA, 2001; Evaristus, 2008;ICAO, 2013; Megersa, 2013;Schulumberger, 2010). Minimal research attention has been given towards the challenges that face the African air transport today specially that of the African airlines from a wider African economic, political and the emerging new world order perspective at least to the knowledge of the researcher. This might be partly because of the widely accepted belief that the major problem (challenge) of the African air transport is the very restrictive environment. Given the very few number of airlines that manage to operate successful fleet the idea of liberalization seems to be overemphasized.

Moreover, in recent years African airlines especiallythose that are considered to be performing very well within the African context have started to take the influx of foreign carriers particularly that of Gulf carriers as a threat to their very existence (Ethiopian Airlines Vision 2025, 2009).Hence, Kenyan Airways CEO Taitus Naikuni (Dr.) and some prominent people on the industry are also suggesting merger of the biggest Airlines, which is between Ethiopian airlines, Kenyan Airways and South African airways (Center for Aviation, 2012). On the other hand, these airlines especially Ethiopian airlines and Kenyan airlines are strong competitors located in the same geographic region.

Hence questionsare raised as to what the real impediments that hold the continent back from reaping the fruits of air transport are and as to whether mergers and pan Africanism/Pan African Airline will rescue the airlines and the industry at large. In general, what does the future hold in terms of air transport for Africa?

Therefore, this study is envisaged to show how the air transport sector in Africa evolves and what the existing challenges and opportunities are apart from the liberalization issue.The study will show the trend of the market share position of African airlines as compared to the non-African airlines in the African air transport market. Moreover, it shows the prospects and opportunities in the industry.It also aims to explore the issue of the proposed merger of the big African carriers as a response to the ever increasing stiff competition in the industry.In a nut shell, this paper will study the major challenges of the African Air transport and will show the prospects in horizon from capacity and competition aspects in the African context.

1.3 Objective of the study

The general objective of this study is to explore the challenges and prospects of the African Air transport today. The specific objectives are to;

1. Examine the trend of the share of African and foreign carriers in the African air transport market;
2. Identify the challenges of African Airlines and primary stakeholders in the African air transport industry, and
3. Explore the prospects of the African air transport.

1.4 Methods

1.4.1 Data collection

A seven year secondary panel data from AFRAA's (African Airlines Association) Annual reports is used in order to examine the trend of the share of African and foreign carriers in the African market. The data consists of number of flights per week, capacity share in terms of seat and passenger number and specific airline capacity measured in flight per week in the intra-continental and intercontinental flights.

Semi-structured interview and document review are used to identify and explore the challenges and prospects of the African air transport in major airlines. Thus the data is collected in two ways. The key informant interview is conducted with representatives of Ethiopian Airlines, Civil Aviation Authority, and Airports enterprise. The Ethiopian institutions (Ethiopian Airlines, Ethiopian Civil Aviation authority and Ethiopian Airports, are chosen because of the expectation that the industry fairly represent the better-established air transport in Africa and is home for one of the major airlines in Africa. On the other hand, these institutions are based in Addis Ababa where the researcher is based which makes data collection convenient. Accordingly, a total of 3 interviews were conducted, one with each major stakeholder in the Ethiopian Air transport industry. The second is document review of the available research work on the challenges of Air transport in Africa and online forums and discussions on LinkedIn. There was a discussion in a couple of LinkedIn groups about problems in African aviation.Among the discussions forums that are dedicated for the African aviation industry two are selected for their number of participants (more than 1,000 professionals) and the diverse professions and organizations they represent (African Aviation forum and African Aviation professional forum). These groups raise issues pertaining to the challenges of the African Aviation industry. Discussions of interest for this research are two posts that were posted on both discussion forums in September and December, 2013. Four of these discussion that focus on the challenges and prospects of the major African airlines and African air transport at large are selected.Altogether there were 80 comments from 17 different contributors.

The group members that commented on the discussions specific to the challenges that face the major African airlines and air transport in Africa consists of researchers on air transport in Africa, Airlines executives, airport staffs, civil aviation directors, low cost airline operators in Africa, Aviation training school directors, IATA and AFRAA officials, pilots, transport economists, air transport planners and many more.

Secondary data obtained from Boeing and Airbus global Forecast in conjunction with data from AFRAA are used to analyze the prospects of the major airlines in Africa. Vision statements and strategic plans of the major African Airlines and the continental organizations responsible for the promotion and development of air transport in the continent are used to show the prospects of the African air transport.

The focus is on the status and prospects of proposed merger of the major African airlines. To this end interviews are conducted with Ethiopian airlines officials (one of the three airlines thought to join the merger) is used.

1.4.2 Data analysis

The share of the African Airlines in terms of passenger, seat capacity and flight made per week are compared with that of foreign Airlines. It is also analyzed in terms of the area of operation (Domestic, intra-Africa or Intercontinental). Data on market share position of African and non-African carrier as recent as February 2014 is used to show the current position in the share composition of the African and foreign airlines in African air transport market. Charts are also used to show the trends of the market share position of the African and non-African Airlines in the intercontinental and intercontinental flights. Moreover percentages and coefficient of variations are calculated and interpreted to illustrate the variations and the market share positions of both African and non- African airlines. The ANOVA (Analysis of variability) test is also run to see the significance in the variability and mean difference in the data set.

As to the challenges that face the major African Airlines and the air transport sub sector in general, data collected through interview and from the online discussion forums are analyzed. The 80 comments were sorted into 64 categories and comments in each category were totaled. Some comments referred to more than 1 category. Further reducing the categories in to 10 it gives the top 10 problems in the order of importance.

Finally interview responses and projections of Boeing and Airbus are analyzed together to show the prospects of the African air transport industry. Moreover the merger plan of the airlines is analyzed in light of past endeavors to form a united African airline (at sub regional level) and the readiness and willingness of the parties involved.

1.5 Scope of the study

In this study an attempt is made to examine and analyze the challenges and prospects of air transport in major African airlines. The analysis is made based on data gathered from AFRAA (African Airlines Association), interview with executives of some of the major African airlines and LinkedIn discussion groups.

In the case of the airlines the scope of the study is limited to African airlines that are members of the AFRAA. This is due to the fact that AFRAA member airlines cover more than 80 % of the commercial air transport in the continent and unavailability of data onnon-member airlines of AFRAA (AFRAA, 2013).The airlines in consideration are either a legacy or national (Flag carrier) or major airlines.The study is also limited tothe analysis of civil air transport and does not include any of the military air transport activities in the continent. The central focus of the study is the major African airlines in the sub-Saharan Africa. This is because of the very slow progress of development of air transport in the region.

1.6 Limitations of the study

This study is limited by the very few availability of research on air transport in Africa. Data from interview is also confined to the few number of key informants available. Finally there is a constraint of finance to conduct a survey as the actors of the issue are located on different corners of the continent. Most of all the research is largely limited to the African Airline industry by the most part to the sub-Saharan region. It is often convenient to discuss the case of North Africa with the Middle East when it comes to air transport; hence the region is not given much coverage in this research. Furthermore, the state of the air transport in northern Africa is very much Affected by the Arab-spring uprising which calls for a separate study that deals with it.

Moreover the available data on market share of the African and non-African airline is at most for the last 7 years. This in effect limits the study only to the very recent trends in the industry.

1.7 Significance of the study

The challenges that face the major African airlines as discussed in previous sections is immense. In recent times the foreign competition on the African air transport market has become threatening for the very existence of the major airlines. Thus the primary significance of this study is to exhibit the stark difference in the market share position of the major African airlines and non African airlines and evince the challenges that are associated with it.The study is alsoessential to provide additional findings on the issue and can also be used as groundworkto do other related research issues.

1.8Organization of the study

This thesis comprises four chapters: The next chapter deals with the review of related literature and in the third chapter, data analysis and findings proceeds. The lastchapter provides conclusions and recommendations based on the analysis result.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1 Overview of the development andchallenges of theglobal air transport industry

Using the skies as a medium of transport has been a dream for men ever since, but it was just in the beginning of the 20th century that some experiments were successfully conducted. The first interesting records date from 1903, when Orville and Wilbur Wright (later known as the Wright brothers) took the first powered flight in a heavier-than-air machine (Pedro,2001).

Later on the world's first scheduled flight was made across the bay separating Tampaand St. Petersburg, Florida on January 1, 1914. Subsequently, commercialaviation has progressed starting from World War I and World War II. Betteraircrafts were quickly designed and important technological advance in the airtransportation was made, whichledto growth in the air transportation (Bowen andRodriguez,1988-2011, cited in Selamawit,2012). As Bowen and Rodriguez (1988-2011) put it, more than a century afterthe first flight, aviation now is intertwined in everyone's life across much of theworld.

Based on Peter (1967), the development of Air transport can be categorized into six successive periods. The first period which can be referred to as the first decade of air transport (1919-1930) is where technical knowledge and prospects of safe, economic and large scale operations were not in vision. At that time operators were covering a mere 20 to 30 % of their cost through their revenue. This is because the aircrafts were unsafe, unreliable and unfavorable for operations in weather conditions which make them less competent with surface transport except for some special cases (Peter, 1967).

The second phase which lasted from 1930 to 40 was dominated by the development of the modern type of monoplanes and increase of passengers in America and Germany. Some of the American airlines expanded their services from domestic transport to Latin America, across the pacific and Atlantic.But the most important effect of the technical developments of the 1930s was in the economic field. In the 1920s profitable operation was quite impossible, except in a few specially favorable circumstances, and there did not even seem to be prospects of any fundamental change in this position, in the subsequent years the industry after being overshadowed by the world war has seen the coming of long range air transport (Peter, 1967).

The broad picture of air transport development during the first half of the 1940s was one of the Western Allies, and particularly the Americans, going ahead with a spectacular expansion of quasi-civil operations under war conditions - with particular emphasis on long-haul routes with the new four-engined aircraft - while the rest of the world held on with existing or improvised equipment until peace returned(Pedro, 2001). The second half of the decade saw an explosive growth of the airlines of all the victorious and neutral nations.

The decade 1950-1960 is the time that the air transport industry has come into its own. That is the airlines and the industry haveestablished themselves as the most important method of long-distance passenger transport during which time air transport penetrated even in to the medium and short-haul passenger market in this period (Peter, 1967).

In this decade next to the U.S, air transport became the most important method of passenger and freight transport in any of the busiest routes in Europe, Australia and South America. Around the end of this decade Europe has seen a phenomenal growth in air transport which amounts more than 50% of that of the USA. In a nutshell the 1950s was a period when profitable operation become possible by using more efficient and larger airplanes everywhere (Peter, 1967).

It was in this period that the policy of continuing fare reduction (in constant money values) was applied in order to expand traffic as rapidly as possible. But this left most of the airlines (except the efficient and large ones) of the time in a very low or non-existent margin of profit.Contrary to what isoften believed this ensures that the travelling public has the lowest practical fares, but it equally has the effect of holding all but the most efficient carriers just below the level of profitability. As a result, themajorityof airlines outside theU.S.A., which are often state-owned and invariably state-regulated, are dependent on direct or indirect government subsidies - even though the margins of unprofitability are often small andcertainly proportionately much less thantheyeverwere during the development period of the1930sand1940s (Peter,1967).

The next decade with notable improvement which includes the discovery of the jet engine in air transport is the 1960s.The swing to jets has been the most significant feature in the development of air transport during the first half of 1960.The airlines equipped with the jet engines expand their capacity, frequency and new routes more rapidly unusually. The expansion and increase resulted in a sharp fall of load factors followed by deterioration in the financial result of the airline for a couple of years. However, this phase has passed and the jets have since proved themselves in full to be economical. This is partially due to the economic incapability of the propeller driven airliners which can be taken as one of the major challenges that the global air transport industry has faced and managed to overcome in its early years of development (Peter,1967).

It is apparent that the history of air transport prior to the 1970s is much related to the improvementof aircraft and flight conditions. In general, it is in the second half of the 20th century that innovations related to the commercial side of airplanes started to spillover. By the end of the 1970s aircraft technology seemed to mature and people worldwide started to recognize and look for air transportation services. Studies before 1970s focus on specific flight or aircraft and no attention was given to explain the system air transport works on (Pedro, 2001).

The world economy which entered in to recession in 1980 starts to slowly recover in 1985 and air transport seems to follow the same suite as the cyclic world economy. Pierre (1997) explains that air traffic grows at a fair rate for the most part of the 80s with the most important event of the period being the emergence of Asian carriers (Singapore, Taiwan, Hong Kong, Thailand and Malaysia). In line with the emergence of Japan as world economic power focus was turned to the Asia-Pacific region as a key source of economic growth. The same period has seen developed intra-Europe traffic in spite of the much regulated environment and competition from improved surface transport (e.g. high speed trains)(Pierrre ,1997).

2.1.1 Deregulation of the Airline industry

Airline deregulation is the process of removing government-imposed entry and price restrictions on airlines affecting, in particular, the carriers permitted to serve specific routes. The airline industry prior to the end of the 1970s resembles a public utility with a government agencydetermining the routes each airline flew and overseeing the prices they charged (Pedro,2001). Unlike today’s airline whereroute and price structures are predominantly determined by customer demand and service quality the industry in those times was highly regulated.

The first oil shock of 1973 slowed down world economic growth however the recovery was strong and rapid with passenger traffic growing by 38 per cent in three years. This combined with the advent of wide body aircraft which significantly increased airline capacity contributed to price escalation which in turn put severe strain on the airlines. This made the charter Airlines that operate in a less stringent regulatory framework than the traditional scheduled carriers develop strongly to satisfy the demand for cheap air travel (Pierre, 1997). This necessitated the revision of the strict regulation imposed on the scheduled carriers by the regulatory authorities especially The USA.

According to Pierre (1997), American analysts tend to consider the 1978 deregulation act as a watershed in the industry’s history. He further explains that for them the deregulation of the industrymarks the beginning of the modern era, in which political freedom and trade liberalization allowed the exploitation of new market opportunities around the world. But the USA deregulation occurred on the eve of world recession which was aggravated by the second oil shock. Following slowdown in the growth of the global demand for air transport the USA domestic air traffic experienced the first decline in 1980. Pierre argues that the regulatory framework was just one of the factors affecting air transport demand and supply and the view held by most of the American analysts appears too simplistic.

On the other hand, deregulation of the airline industry continued in Europe, Latin America and Asia withdifferent effects from that of the U.S in terms of scope and magnitude.

According to the weekly magazine Airline Weekly (2006), when the European Union phased in a continent wide open skies regime, it has dramatically lowered fares, expanded access and boosted tourism, commerce and movement within the union.

In Africa several early attempts to unite various small African carriers was not successful. As a result the domestic and regional air service market remained underserved, inefficient connected, underdeveloped, and uncompetitive. These are some of the shortcomings that necessitated the adoption of the Yamoussoukro Decision. Although this pan African decision on African air transport was expected to freely allow airline operations in the continent, after decades of its adoption its implementation remains far from being achieved (Raphael, 2011).

2.1.2 Air transport after 9/11(Nine one one)

The multiple attack using airplanes as a weapon on United States on September 9, 2001 is believed to be one of the historic turning points in the Aviation industry. Some consider the decade that follows it as the most challenging decade for the global aviation industry at large and for the USA in particular.According to IATA (International Air Transport Association) (2011), even though isolating the impact of the events of 2001 is very difficult, one can say that they were a part of a chain of events that cost the industry three years of growth. The fact that the industry was already in a weak financial position and world economy had slowed down with airline profits declining by more than 50% from 1999 to 2000 are important in understanding the isolated impact of the events in September on the global air transport industry(IATA, 2011).

The global impact in terms of traffic, revenues, profitability and oil price was enormous though the extent to which it affects each region differs.

Table 2.1 Key performance indicators for the global Air transport during 2001-2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011[†]
Revenues ($ billion)	329	307	306	322	379	413	465	510	564	482	554	598
Passenger growth %*	8.6	-2.7	1.0	2.3	14.9	7.0	5.0	6.4	1.5	-2.1	7.3	4.4
Passenger numbers (millions)	1,828	1,793	1,792	1,849	2,064	2,211	2,328	2,497	2,507	2,479	2,681	2,793
Crude oil price (Brent) $/b	28.8	24.7	25.1	28.8	38.3	54.5	65.1	73.0	99.0	62.0	79.4	110.0
Jet Fuel price $/b	36.7	30.5	29.1	34.7	49.7	71.0	81.9	90.0	126.7	71.1	91.4	126.5
Net profit ($ billion)	3.7	-13.0	-11.3	-7.5	-5.6	-4.1	5.0	14.7	-16.0	-9.9	18.0	4.0
Margin %	1.1	-4.2	-3.7	-2.3	-1.5	-1.0	1.1	2.9	-2.8	-2.1	3.2	0.7

* Tonne Kilometers Performed
Source; IATA (2011)

The change in the margin of profit in the aftermath of the 9/11 event for instance during the year 2001 and 2006 are considerable (Table 2.1). While the first somehow indicates the impact of the September 11 attack on the industry the latter depicts the high resilience of the industry as it took the industry only 3 years to recover.

In a nutshell, during much of its development, the global Air transport (Airline) industry dealt with major technological innovations such as the introduction of jet airplanes for commercial use in the 1950s, followed by the development of wide-body “jumbo jets” in the 1970s (Myfundi, n.d). At the same time, airlines were heavily regulated throughout the world, creating an environment in which technological advances and government policy took precedence over profitability and competition.

It has only been in the period since the economic deregulation of airlines in the United States in 1978 that questions of cost efficiency, operating profitability and competitive behavior have become the dominant issues facing airline management. With the USA leading the way, airline deregulation or at least “liberalization” has now spread to much of the industrialized world and beyond, affecting both domestic air travel within each country and, perhaps more importantly, the continuing evolution of a highly competitive international airline industry.

2.2 AIR TRANSPORT IN AFRICA

2.2.1 HISTORY AND SIGNIFICANCE

The early history of Air transport (Aviation) in Africa is much related to the colonial history of the continent. That is prior to their independence most African countries air service was primarily based on European relationships and agreements.Soon after independence, most of the newly independent Africanstates created their own, mostly government-owned, national air carriers, many of which failed (Guttery, 1998).

Moreover Gordon, (1992) explains how air transport in contiguous southern Africa has just fractured by political action just after independence and the end of apartheid in South Africa. This, he noted that, reflectsmostlydecolonization and the start of independent rule in black Africa, the persistence of resistance to apartheid and air transport regulations that empowered sovereign states to award or deny air-traffic rights.

Itis apparent from Table 2.2 that most of the African countries under colony have established their own national flag carrier right after independence.

Table 2.2List of some of the African airlines established after independence.

AIRLINE	YEAR	AIRLINE	YEAR

Botswana National Airlines	1966-69	Ghana Airways	1958
Air Burkina	1984	Air Guinea	1960
Royal Air Burundi	1960-63	Air Bissau	1960
Air Tchad	1966	Lesotho Airways	1967- 70
Air Congo-Brazzaville	1961-65	Libyan Arab Airlines	1964
Air Congo	1961-65	Air Malawi	1964
Air Djibouti	1963-70	Air Mali	1960
LineasAereas de Guinea Ecuatorial	1969	Air Mauritania	1962
Gambia Airways	1964	Air Mauritius	1967
Royal Air Maroc	1957	Nigeria Airways	1958-2003
Sierra Leone Airways	1958-87	Air Rwanda	1975-96
Air Niger	1966-93	Air Senegal	1962
Zambia Airways	1963-94	Uganda Airlines	1976–2001

Source: Compiled from Guttery (1998)

Most of these Africannational carriers pursued a business model that consisted of using profitable international routes to and from the territories of their former colonial masters to cross-subsidize their costly, yet extensive, domestic routenetworks (Guttery, 1998). According to Schulumberger (2010) the business model used often resulted in the maintenance ofstrict bilateral relationships for intercontinental routes, where capacitywas limited and controlled to maximize profitability. However, as governments had to maintain a costly domestic network they tendedto view the development of regional air services as secondary.

Air transport in Africa is characterized by dual facets and dichotomy in the development of the sector. On the one hand, the geography of the continent along with its vastness calls for a well-developed air transport. The lack ofcooperation and integration among the regions on the other hand led to isolated development among the regions in the early periods of the development of the industry (MyFundi, n.d).

Given the diversities of issues and situations the early history of Aviation in sub-Saharan Africa is better analyzed for the four separate regions (South, Central, East and West Africa).

Starting from the eastern bloc of the continent we find the now nonexistent East African Airways (EAA) which was jointly setup in 1946 by Tanzania, Uganda and

Kenya(Goldstein andNudung'u, 2001). After 31 years of service it was dissolved in 1977 due to deteriorated relations among the founding three countries.It is said that the difference in political ideology between Kenya and Tanzania and the crisis in Uganda were the reasons for the dissolution of EAA.

Following this all the three countries established their own autonomous national airlines. In 1996 Kenya Airways was sold for the foreign strategic investor (KLM) but the company was not able to make Nairobi a true regional hub due to a stiff competition from Addis Ababa. Soon the governments of Uganda and Tanzania opened the international air transport market for South African Airways (SAA) which established an Entebbe-based joint venture called Alliance Air with 30 % ownership, but Alliance also suspended all operations in 2000 due to successive years of loss and financial instability(Goldstein andNudung'u, 2001).

A rather Appealing story of aviation in this region is that of Ethiopia. According to Semret (2006), it was in 1945 while attending the historic founding conference of the United Nations that some Ethiopian delegates took a side trip to Washington to seek assistance for the establishment of a national airline. A very important point raised and agreed by both the USA and the Ethiopian delegates was to take the operation of the airline under commercial consideration, a corner stone for the decades of success of the airline. Soon in December 1945 Ethiopian Airlines was established with the help of Transworld Airline (TWA) with the Ethiopians taking over every position gradually. The airline started and kept on investing on routes that connect African countries unlike most African carriers that plied the North-south or Europe to Africa routes, hence serving more destinations in Africa than any Airline (Semret, 2006).

According toGoldstein &Nudung'u (2001) despite repeated calls for regional integration in the air transport sector in the Eastern African region very little progress has been made. Air transport's importance for the region, in increasing trade and expanding market with the rest of the world, cannot be overemphasized given the region's primary agricultural products and tourist sites. Wimand Marianne (2007)explain the importance of air transport in logistics and supply by citing the success of countries like Chile, Mauritius and Colombia in exporting high valued agricultural products to the OECD countries market through air.

In West Africa the signing of a treaty by a dozen of countries (Benin, Cameron, Central African Republic, Chad, Congo Brazzaville, Gabon, Coted'Ivoire, Mali, Mauritania, Niger, Burkina Faso and Senegal) to establish a major Airline (Air Afrique) in 1961 is an important circumstance in the air transport history of the region(Goldstein andNudung'u, 2001). Later Air Afrique was sold to Air France and some private investors which causing a loss of $500 million before the airline collapse in 2001 (Bofinger, 2009). Bofinger (2009) further explains that air transport in this region is stagnating due to the demise of several regional airlines including Air Afrique and the collapse of Cote d'Ivoire.

On the other hand, Oladel (2005) relates air transport's particular importance to the region to the high number of tourist arrival through it (which amounts to 87% of the total tourist arrivals). One contradiction in the sub-Saharan African air transportnoted by Oladel (2005) is that despite its big aggregate GDP and large population that spread over 22 countries, West Africa was the only sub region which was unable to produce an Airline in the top 10 in Africa.

It is evident that air transport holds both a potential for growth and a role for the economic development of the region and the continent by fostering trade and foreign investments. One reason that makes air transport very important for the African continent according to Raphael (2011) is that due to the poor roads, infrastructure, ports and railways in Africa the rapid and efficient transportation of goods earmarked for export and passengers will be difficult calling for the rapid and efficient services of air transport.Megersa (2013) also sees the air transport sub-sector in Africa as a sector full of contradictions. On the one hand, reasons such as large Population, huge land mass size favorable for air transport and the fact that about a third of the African (16 out of 54) countries are landlocked and the under-developed alternative mode of transport necessitate a well-developed air transport industry in Africa. On the other hand, while the above stated conditions are reasons that make the Aviation industry thriving in Africa, commercial aviation in Africa has remained to be the least developed in the world with a mere share of 3% of the global Air traffic.

The Southern African Air transport industry was subject through much of the 1980s to intense political tensions. The way that African countries dealt with South African Airways (SAA) on the basis of protest to apartheid was followed and magnified by non-African countries to the extent of withdrawing SAA's landing and over flight rights in those countries (Gordon, 1992).

South African Airways which was formerly called Union Airways before it was sold for the South Africangovernment in 1934 has become one of the three best contemporary airlines of Africa. As per the former encyclopedia (MyFundi,n.d), a year later, another airway namedas South West African Airways was incorporated to South African Airways which took the airline on a path of success starting from 1980 making it one of the biggest and successfulairline in the continent.

2.2.2 Overview of air transport infrastructure in Africa

In 2010 Africa had over 4,000 airports and airfields, of which only 20 % had paved runways with only 117 (29%) of them, meeting the International Civil Aviation Authority (ICAO) standards and recommended practices (ATAG,2010).

The role and importance of transport infrastructure in promoting economic growth and alleviating poverty in Africa cannot be overemphasized. A policy brief of the United Nations University by Wim and Marianne (2007) on the significance of transport cost in Africa argues "The success of Africa's exports, as well as its rural and more generally its spatial development now depend on lowering its transport costs." They further explain that transport costs are the most important component of trade costs and put five reasons for the high transport costs faced by African countries in their international trade.

Three of the most important reasons forwarded being land locked, distance and lack of sufficient infrastructure relate to air transport in many ways. Wim and Marianne (2007) also attribute the high transport cost to the insufficient domestic airports and logistics in transporting people and goods. As has been discussed in the previous section a third of African countries are land–locked and the large distance even among countries with in Africa should have made Air transport preferred and well developed in the continent.

On the other hand, Bofinger (2009) argues that air transport infrastructure capacity is not a serious problem in Africa. For him with modest investment on parallel taxi-ways and terminal facilities combined with better scheduling, the existing number of airports and runways are adequate to handle current traffic and foreseeable growth.

The preferred and effective investment is on air traffic control and surveillance technology except for very few countries. Hence the problem according to this argument is one of political and organizational in nature, as the revenue from the sector is high enough to finance the necessary investments. This points to the situation that in most cases the revenue from the sector is not reinvested back in the sector as it will be used for financing other government projects (the organizations are not autonomous). ATAG (2010) also agrees that in Africa airport infrastructure investment is not as urgent or pressing as elsewhere although capacity issue of the larger airports needs to be addressed.

The capacity of the runways is not a limiting factor in Africa except for their limited taxi ways which restrict entry and exit from the runways in a given period significantly. Moreover the amount of terminal space for processing passengers, apron space for parking and some land side infrastructures with the exception of North Africa are the most limiting factors as far as air transport infrastructure in Africa is concerned (Bofinger, 2009).

2.2.3Performance of African Airlines

Africa's airline industry is challenged by a wide range of negatives that impede growth. This is manifested in the global share of the continents Airlines in transporting passenger and freight. Based on AFRAA (2012), Africa accounts for less than 2% of global airline passenger traffic and about 1% of global airlines' cargo in 2011. Even this is underperforming, against a GDP of around 2.4% of the world's total.

Furthermore, the international market share of African airlines is small compared to its large population size. For instance, Center for Aviation (2012) lists out the top 20 African countries in their positions in the international air transport market by the number of seats per week in 2012 and found out Egypt with a population of 80.9

million people ranks first of all the African countries. But that only makes Egypt 18th in the European countries lists which are by far less populated than Egypt. Moreover Nigeria, with its 165-million population, would rank 26th, just behind Latvia.

Meanwhile, the continent's strongest airlines, Ethiopian Airlines and its equally ambitious competitor, Kenya Airways, are shifting Africa's focus away from South Africa, home of traditional heavyweight South African Airways, to East Africa, giving the two carriers network opportunities but also creating a competitive rivalry (Airline Leader, 2012). This also evidenced the completion and the shift of market concentration from one region in the continent to another.

Considering the overall state of airlines in Africa on the country-by-country level results in an extremely fragmented picture. But looking at the type of the national airlines operated in each country, they can be categorized in to four groupsSchulumberger (2010).

Table 2.3summarizes the four categories with the corresponding countries.Itshows the dominating carriers which are state owned are very few in numbers with each of the five countries having an airline that dominates the African air transport market as far as African airlines operation is concerned. Here, weakness is defined as either maintaining a heavily subsidized air carrier with public funds or providing other government-directed advantages, for instance, airport privileges, to the flag carrier (Schulumberger, 2010).

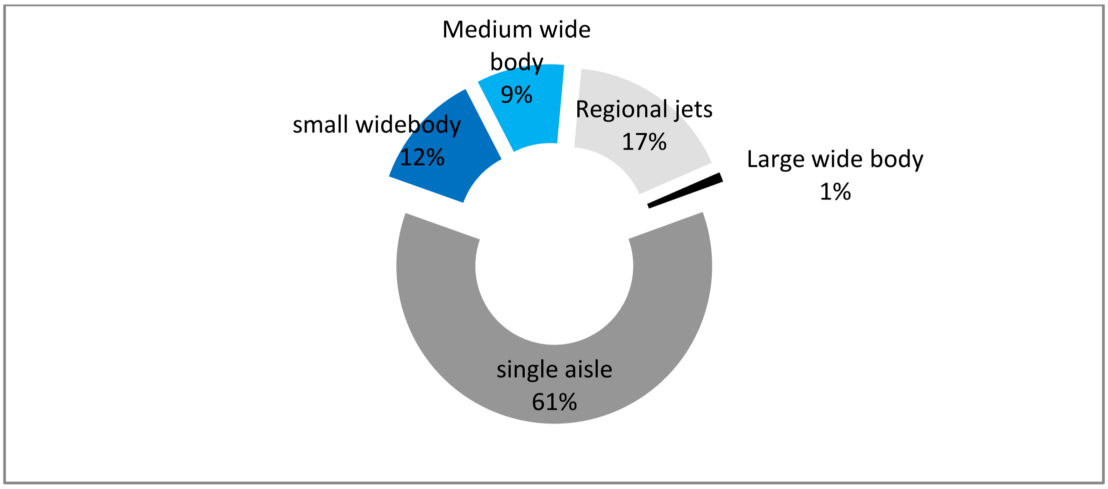
Table 2.3Type of airlines operating in African countries based on ownership structure.

Type of Airline operated	**Countries**
Dominatingstate-owned carriers (5)	Egypt, Ethiopia, Kenya, Morocco, South Africa
Weak or small state-owned	Algeria, Angola, Botswana, Cameroon, Cape Verde,

carriers(20)	Comoros, Djibouti, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Seychelles, Sudan, Tanzania, Tunisia, Zimbabwe.
Only private operators(25)	Botswana, Burkina Faso, Burundi, Chad, the Democratic Republic of Congo, the Republic of Congo, Côte d'Ivoire, Equatorial Guinea, Eritrea, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Rwanda, São Tomé and Principe, Senegal, Sierra Leone, Somalia, Swaziland, Togo, Uganda, Zambia
No known operators (4)	The Central African Republic, Niger, Lesotho, The Western Sahara

Source: compiled from Schulumberger (2010)

In addition to this looking at the fleet composition, we can see the low profile of African airlines in terms of technology and age of the equipment they use in operations. It is apparent that the fleet composition of the airlines is directly related to the capacity and safety of the airlines concerned. Figure 2.1 shows the fleet composition of African Airlines in 2012.



Source: AFRAA, (2013)

Figure 2.1 Fleet Composition of African Airlines-2012

Total number of aircraft in operation in Africa in 2012, including 10 freighters was 694. This is just 3.4 % of the global fleet, of this 573 (82.6%) are owned by AFRAA member airlines, which transported 83% of the total African aviation commercial market (AFRAA, 2012). The type of aircraft operated by African airlines as shown in Figure 2.1 is predominantly a single aisle type which represents 61% of the aircraft in operation.

Wide body (small, medium and large) aircraft make up only 22% of the total African fleet with large wide body aircraft representing only 1% of the total fleet. In general the fleet composition of African carriers indicates the majority of aircraft used by African carriers is old and narrow body type except some very few airlines with quite small number of wide body and state of the art airplanes. This in turn has its own impact on the performance and operation of the airline.

The regional passenger traffic split for 2010, according to ATAG (2012) is dominated by Asia-Pacific, North America and Europe each having a share of 34%, 27%, and 27% respectively. Africa's share remains at 3%,the same as the Middle East and 3% less than Latin America and Caribbean regions.

International passengers (65% of the total passengers) transported by African Airlines in 2012 are carried by the top 20 airports in Africa with South Africa and Egypt leading the top 20 African airports with each of them having 3 airports in the list (AFRAA, 2012). The two makes the biggest air transport markets in Africa. Furthermore, O.R. Tambo International Airport (Johannesburg) is the busiest airport in Africa in terms of passenger numbers, cargo handled and aircraft movement. The same airport leads the African cargo traffic with Nairobi Jomo Kenyatta following, after taking over Cairo Airport in 2012 (AFRAA, 2013).

The annual report by AFRAA (2013) on the performance of African airlines shows a 12.5% increase in the passenger numbers transported within Africa (intra-Africa) in 2012. The report explains the reason for the growth to be the rapidly growing business and trade among African countries and the growing middle class, some of whom now prefer air travel. The same report indicates a growth of 12.5% in passenger numbers transported on the intercontinental route by African carriers.

The above analysis on the African air transport industry and major airlines in Africa gives a highlight of the problems and challenges in the industry. The trend and share of the African airlines as compared to the foreign carriers does not get much attention on the available literatures. It is of high importance for major African airlines and the industry at large to look at the international market share and its trend of the foreign airlines in Africa. The analysis in this thesis attempts to show this trend and the prospects of African Aviation.

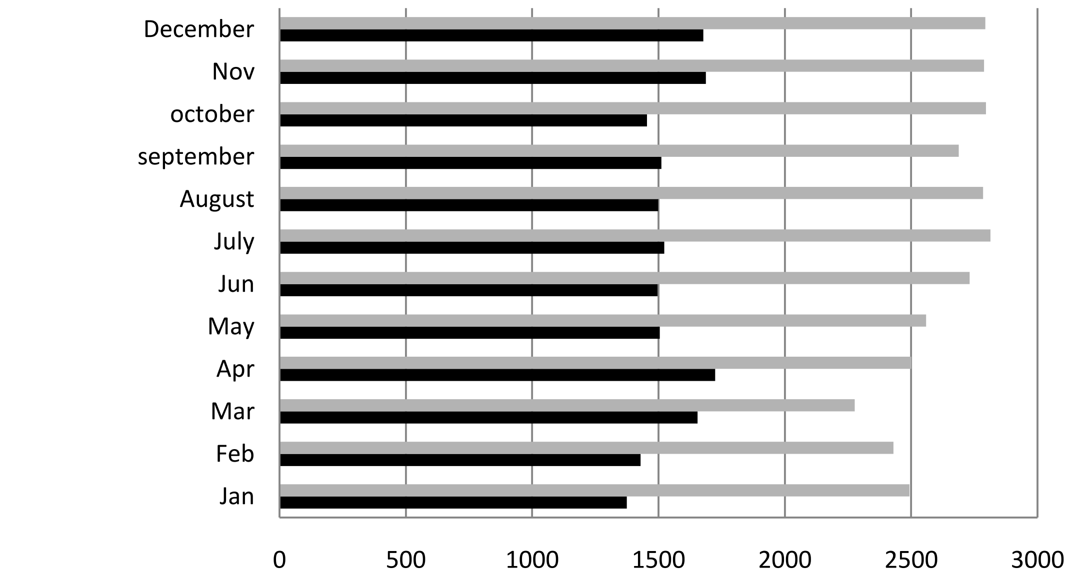
CHAPTER THREE: DATA ANALYSIS AND FINDINGS

3.1 Market share: African versus Foreign Airlines

Given all the favorable conditions for air transport in Africa, it is a paradox that the global share of Africa remains at just 3%. This is in part due to the capacity limitation and foreign competition faced by the industry’s stakeholders in the continent.

The market position of African andforeign airline in the African air transport market is a good indicator of the performance of the African carriers and the challenges facing them. According to AFRAA (2013) African airlines are the dominant operators on the domestic and intra-African markets with a capacity share of over 97%. Although this seems large in percentage, in terms of absolute numbers it is not huge enough as domestic and intra-Africa flights are not well developed due to the low economic status of the general public and availability of alternative means of transport that are much affordable. Hence, an area of interest for the African airlines is the intercontinental sector where theyseem to lose a lot, as the following graphs and discussions will illustrate.

For instance, the market share of African anda non-African carrier in terms of number of flights per week to or from Africa in 2010 is presented inFigure 3.1. It shows that the month on month figures for flights to or from Africa is highly dominated by the non-African carriers.



	Jan	Feb	Mar	Apr	May	Jun	July	August	september	october	Nov	December
Non-African Airlines	2493	2430	2276	2501	2559	2731	2814	2784	2688	2796	2789	2794
African Airlines	1374	1429	1654	1724	1505	1496	1523	1499	1512	1455	1688	1677

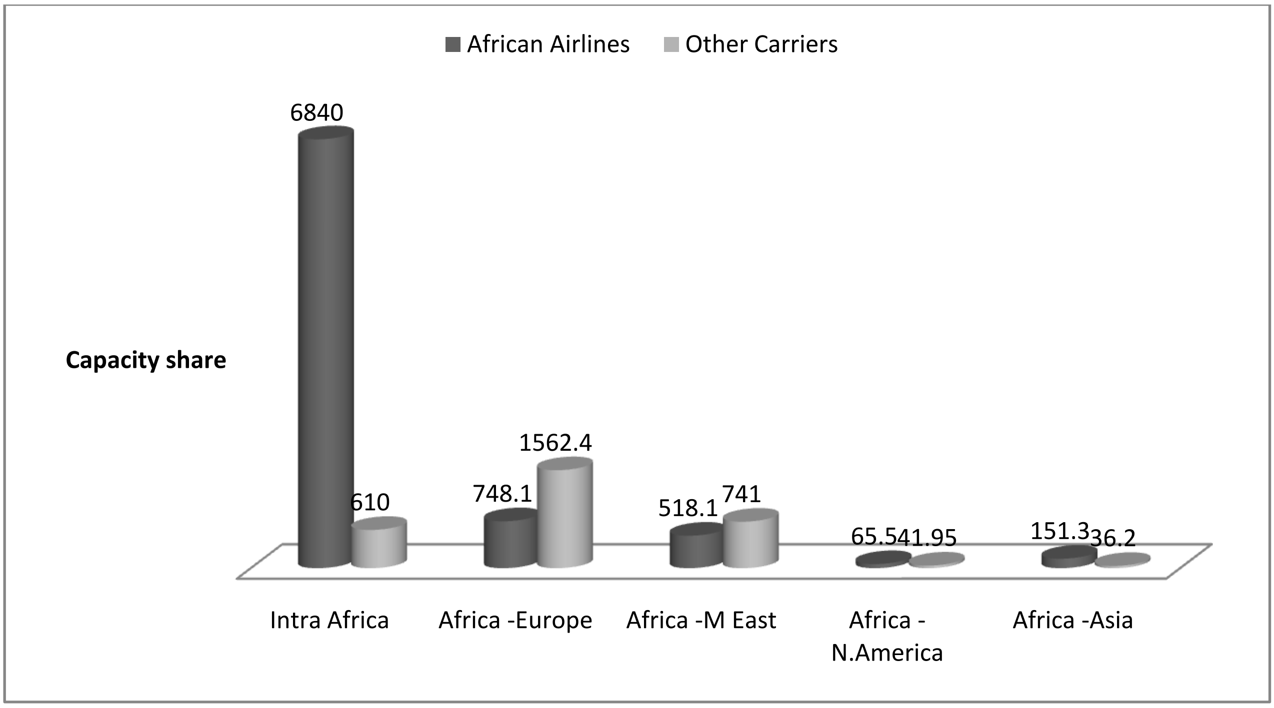
Source: compiled from AFRAA (2010) data

Figure 3.1 Average number of flight per week to or from Africa in 2010by African and non-African airlines

Figure 3.1 shows the international market position of African and foreign carriers in terms of the number of flights they make in a week during the 12 months of 2010. It is evident that throughout the year the share of the African airlines is less than that of the foreign airlines'.On average 968, more flights had been operated per week by the foreign airlinesduring 2010.

Moreover the variability or change in the number of flights per week for both the African and non-African airlines is very low with the coefficient of variation showing 5.9% and 7.9% respectively. Although very small the 2% difference in favor of the non-African Airlines in the variability of the number of flights per week is indicative of the stagnant andless fluctuating nature of the African airlines fleet increase as compared to their foreign competitors.The ANOVA (Analysis of variability) test also shows significant (at 1% level) difference in the mean values of the number of flights per week between the African and non-African airlines. From this the dominance of the non-African carriers on the African air transport market is evident.

Looking at the intercontinental capacity share for both African and non-African airlines for the month as recent as February 2014 will help us see todays' state of the African airlines' in terms of their market share in the African air transport market (Figure 3.2).



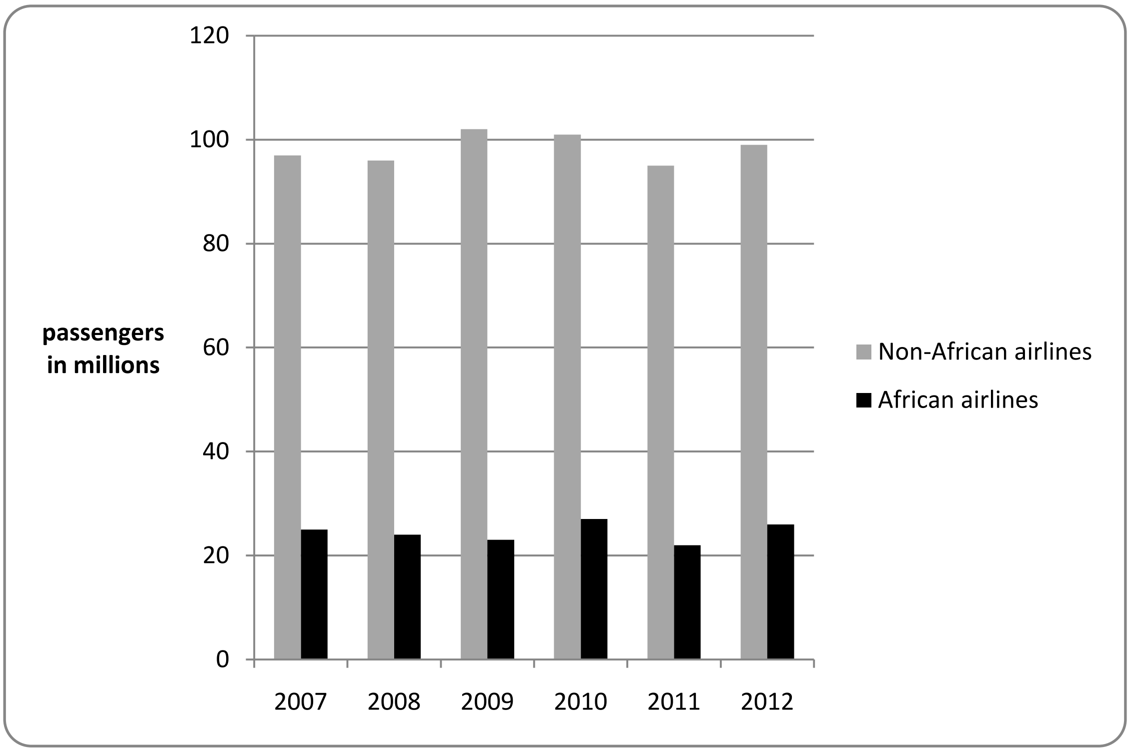
Source: compiled from AFRAA, 2014

Figure 3.2 Intercontinental capacity share (seats) February 2014 African and other carriers('000)

The seat capacity share for the Intra-Africa region 6840 (91.8%) is where the African airlines have a major share while the foreign carriers share is a mere 8.2%. Moreover Data from AFRAA (2010-2013) indicate that the seat capacity share of African airlines for the years 2010 to 2013 averages 96.71% with a variation coefficient of 1.58%. Next to the intra Africa region it is the Asia region that the African airlines have a major share 151 (80.69%), although the volume of flight is small. This according to center for aviation (2012) is a result of growing market in Asia and especially China, and the carriers from China are overwhelmingly busy with the huge domestic market.

The African airlines seat capacity to Europe for this specific period is about 32.37% which leaves the lion share of 67.63% for the non-African carriers. This is the region African carriers have the lowest share during the specific period.For the Middle Eastern and North America region the seat capacityis more or less divided equally between African and other carriers.

To see the trend of the market share of African Airlines (as compared to the non – African Airlines) the following chart which depicts the yearly capacity share in terms of passenger numberstransported (2007 to 2012) is presented below.

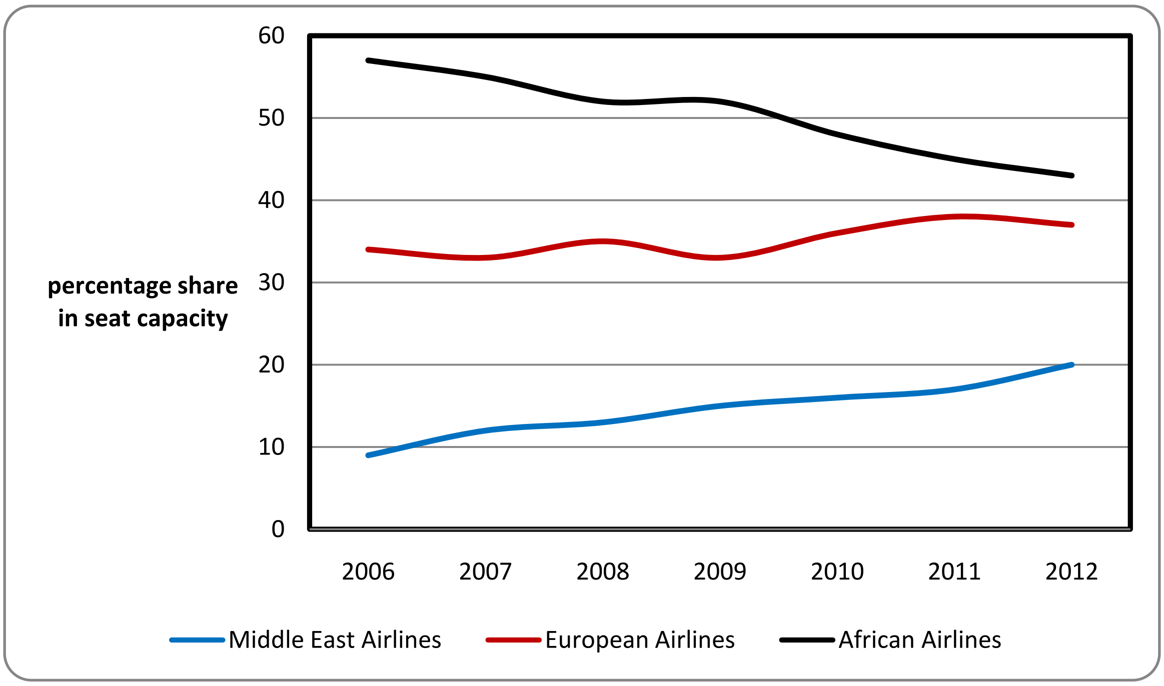


Source; AFRAA, 2013

Figure 3.3 passengers carried by African and non-African airlines on intercontinental routes from 2007-2012 (in millions)

Figure 3.3 shows how the intercontinental air transportto or fromAfrica is dominated by non-African carriers. For the non- African airlines this indicates their dominance and presence over the African air transport market in the intercontinental flights from or to Africa.For the six years that are under consideration no significant change in the market share positions of both is observed. This is evidenced by the fact that the coefficient of variation for the African and non-African airlines is below 10%. The ANOVA test also shows significant (at 1% level) difference in the mean values of the number of passengers per week between the African and non-African airlines. From this the dominance of the non-African carriers in terms of passenger numbers on the African air transport market is evident. Moreover the variation in the number of passenger carried by African airlines is less than that of the Foreign by about 5% with the variation for the latter standing at 7.6%.

Further dissecting the share of the foreign carriers in to the regions of their origins and registry, the share of the Middle Eastern and European airlines is presentedin figure 3.4. These two regions as shown above are regions of interest as they are origins of much of the non -African airlines that dominate the intercontinental market to or from Africa.



Source; compiled from AFRAA, 2012,2013

Figure 3.4 percentage share of intercontinental capacity (seat) to or from Africa, 2006-2012.

Figure 3.4 clearly shows the intercontinental air traffic market share to or from Africa for European and Middle Eastern airlines in comparison with the African airlines which evidently lost about 12% of their seat capacity share in the 7 years under consideration. This in effect increases the market share of European and Middle Eastern carriers from 42% to 58% in the same period. It is also apparent that the share of the Middle Eastern airlines has shown an increasing trend throughout the period in question.The ANOVA test also shows significant (at 1% level) difference in the mean values of the percentage market shares of the African and non-African airlines. From this the dominance of the non-African carriers especially the Middle East and European airlines on the African air transport market is evident.

This finding is in conformity with the report by African carriers of stiff competition from Middle East and Gulf carriers who have the unfair advantage of Low fuel price and unlimited finance (Interview with Wegayehu Terefe, Vice president of corporate strategy and international Affairs, Ethiopian Airlines, on 17 April 2014, Ethiopian airlines headquarters)

This is indicative of the continuing difficulty that African airlines face to compete in the intercontinental sector.For instance AFRAA (2013) links the issue withthe absence of intercontinental Airlines and airport hubs in the Westand Central Africa region and restrictive market access policies of some African countries that favor non-African carriers.AFRAA secretary general, Elijah Chingoshu also warns that Africa's airlines are facing eminent challenges from outside as some African governments are offering foreign airlines with unfair advantages (Alan, 2014, p. 21). Although this contributes to the declining market share, there are other challenges facing the African airline industry as discussed in section 3.2 (challenges).

For the Africa-North America sector capacity is further subdivided in to the particular airline and presented in the Table3.1. In this sector only a few African carriers are involved due to safety restrictions and capacity limitations.Especially flights made to the U.S are subject to extensive security and safety checks on part of the Federal Aviation Administration (FAA) which will easily exclude most African airlines from operating on routes to the U.S(Schulumberger, 2010).

Table 3.1 Africa to North America capacity share by Airlines in 2012

Operating carrier	Flights per month	Seats per month	% share (seats)
Delta Airlines	180	42668	36.31
South African Airways	86	23808	20.26
Royal Air Maroc	61	15552	13.23
Egypt Air	30	10380	8.83
Ethiopian Airlines	33	9862	8.39
United Airlines	22	5918	5.04
Air Algerie	19	4781	4.07
Arik Air	12	2844	2.42
TACV cabo Verde Airlines	9	1715	1.46
Total	**452**	**117,528**	**100%**

Source: AFRAA (2013).

The combined African airlines seat capacity share in the Africa -North America route stands at 58.65% with 250 flights made by 7 African airlines. Delta airline of the USA dominates the sector by operating 180 flights per month. Although this airline started operation only in 2006 it was able to take the lion’s share almost every year. It is also reported that the African airlines has shown an increase in capacity of 4% from 2011 in this sector (AFRAA, 2013). Among the African carriers South Africa is in the lead with a monthly average of 86 flights to and from North America.

3.2 CHALLENGES

As part of the global air transport industry, the African Air transport industry has faced many of the challenges that the global air transport industry encountered throughout its history. Nonetheless, there are challenges that are specific to the African continent related to its history, geography, political-economy and international relations among others.

The challenges faced by the African Aviation industry in general and the major airlines in particular are many. It is difficult to put the challenges as a whole as the industry lacks uniformity in its degree of development. There are those countries and airlines that seem to be found at the helm of the industry's success ladder as far as air transport in Africa is concerned and there are also countries with their air transport sector underdeveloped and way behind. It is obvious that both have their own challenges that differ in their form and nature.

The interviews conducted with some stakeholders in the industry and the comments on the online Aviation discussion forums dedicated for Africa reveal some of the challenges that the African air transport (Aviation industry) is facing today.

Although the country by country analysis of the challenges of African air transport results in a very fragmented picture, it is possible to sort out the major challenges that are common for the major airlines. This is partly due to the trans-border and international nature of the air transport industry. The comments on the discussion in the LinkedIn forums are summarized in Table 3.2 along with the categories and the percentages each category represent. It is important to note that some of the comments fall in to more than one category.

Table 3.2 Number and percentage of comments related to the challenges of African air transport categorized in 10 groups (From LinkedIn groups)

Category	**Number of comments**	**Percentage (%)**
Protectionism	14	17.5
Lack of open skies	13	16.25
Foreign competition - Gulf airlines	11	13.75
Political interference	10	12.5
Corruption	9	11.25
Development funding	7	8.75
Brain drain	6	7.5
Training	5	6.25
Customer service	3	3.75
Airport infrastructure	2	2.5
Total	**80**	**100%**

Source: compiled from LinkedIn group discussions

Protectionism and Lack of open skies: They rank first and second of the 10 challenges listed in Table3.2. Theyhave also received 14 comments out of the total 80 and in all comments related to them, the issue of some African countries like Angola and Senegal that allow foreign airlines while closing the market for African airlines is mentioned.

As it can be expected, the push for liberalization varies widely across countriesand issues, so while many governments moved relatively fast to start the flagcarrier privatization process, other governments are moving slowly to removecompetition restrictions on flights between important city pairs, or to even thinkabout pan regional interests rather than their own national aviation interests.

'Open skies' refers to a bilateral ormultilateral air service agreement that liberalizes the rules for international aviation markets and minimizes government intervention. One such agreement signed by many African states is the Yamoussoukro decision (YD) which was set to liberalize African air transport through its pan African multilateral agreements. The comments relate the challenge to the long history of failed or ineffective objectives of integrating Africa through implementing the YD. Moreover the comments explain the challenges that the YD faces at the public policy implementation and operational levels, which they think is way behind reaching the objective of opening up African skies for Africans. Moreover, given the pluralism and diversity of interests that naturally accompany such a large landmass and multitude of countries, the full liberalization of air transport in Africa is by no means an easy task,asserts the comments.

The third most important challenge according to the comments, Foreign competition-Gulf airlines, is presented at the end of this discussion along with the interview responses of the executives of the major airlines in Africa.

Political interference and Corruption : with 12.5% of the total comments political interference in Africa ranks the fourth most significant challenge of air transport in general and major African airlines in particular. The comments relate this challenge with both the lack of political will to cooperate and liberalize by African states and the direct involvement and intervention of governments in the operations of the major airlines. Some comments credit the relative success of a couple of major African carriers to the non-intervention policy of the governments they own them. On the other hand, these comments revealed that the operation of many airlines which is entirely based on political considerations and decisions that come out of the political personalities has severely damaged the operations of the airline. In some cases the commercial considerations are completely ignored and the interest of the high profile political elites and persons in their circle gets the priority, as if the airlines are owned by those people, the comments observed.

Corruption in the air transport sector in Africa is the fifth major challenge based on the comments in Table 3.2. The comments relate it to the lack of transparency, good governance and democracy in most of the states in the African continent. In this industry corruption has a lot to do not only with a reduced quality of services but also compromising safety and security of people's lives.

The other challenges include lack of development funding, brain drain, lack of specialized trainings, customer service and airport infrastructure. Brain drain is discussed with the foreign competition part.

Foreign competition –Gulf airlines: Based on the comments,the third major challenge is competition from foreign airlines especially from Gulf and Middle East airlines. This according to some comments is the most prominent challenge for African airlines. The same comments argue that given the strong financial position supported by the petro-money and the geography of the Middle East (at the intersection of three continents), it is even very challenging for the African airlines to operate normal fleet let alone expansion.

Some of these challenges are substantiated by the IATA interview made with some of the CEO's of the major African Airlines and the interview the researcher made with vice president of Ethiopian airlines.The major challenges in the African operation of Ethiopian and most African airlines according to Wegayehu Terefe, Vice president of corporate strategy and international affairs at Ethiopian Airlines, are stiff competition, traffic right restrictions, costly operations, and inadequate infrastructure.

Wegayehu further explains the competition from mega carriers from the Middle East, Gulf and elsewhere is so daunting with some African countries allowing foreign carriers giving unfair advantages and closing for African carriers with the pretext of restrictions. This indeed has direct relation to the challenges identified as first and second challenge in Table 3.2. She explicates the issue by bringing cases like, Turkish Airlines (TK) that opens 20 destinations in just a year (Now this airline has more than 43 destinations in Africa including Mogadishu in Somalia). She also indicated the number of African destinations served by just three of the Gulf airline (Emirates, Qatar and Etihad) is more than 50 in total with new destinations in the pipeline. The most significant challenge Wegayehu,remarksis,the taking over of Ethiopian airlines' home grown market by those multi-million dollar mega carriers reducing the airlines African market share in the continent to 4% (Interview with Wegayehu Terefe, Vice president corporate strategy and international Affairs, Ethiopian Airlines, on 17April 2014, Ethiopian airlines headquarters).

Moreover, on an interview with IATA, in response to the question concerning the challenges related to brain drain and employee turnover Ethiopian Airlines CEO, Tewolde Gebremariam,says;

'Brain drain has been a major issue and it is still a challenge. But we saw that it could be an opportunity too. We said, "instead of complaining, why donot we train enough people not only for our airline but also for the region." We knew that with hard work and the right investment it would be a win-win situation.'(IATA CEO Interview, June 2013)

Although the brain drain issue has been given a wide coverage by mainstream media and academics circle, to the satisfaction of many, the industry seems to respond with a win- win strategy as mentioned above by changing the adversity in to opportunity in some regions of the continent.The response by the Kenyan Airways CEO (Dr. Taitus Naikuni) regarding the impact of gulf and Middle East airlines in terms of commercial challenge and staff recruitment accords this and that of the Ethiopian airlines executives view above.

Mr. Naikuni noted that in terms of staff those airlines have taken some pilots and quite a few cabin crew but the airline has looked at it as an opportunity as it has set up a cabin crew school which generates a good revenue stream by providing its students for the gulf carriers. For him the ‘onslaught’ from them as he puts it is, when it comes to the market place. He explains the Middle East and gulf airlines are diverting traffic from hubs in Amsterdam and London which traditionally remains to be a huge market place for African Airlines. Finally, in spite of his trial to look at the opportunity to complement with the development, he admits that the situation is still a challenge (IATA CEO Interview, Feb2013).

For South African Airways (SAA) with a well-developed domestic air transport market, the challenges are both in domestic and international arena as an interview with SizaMzimela (SAA, CEO) reveals.

Mzimela explains the challenges as follows;

‘Typically we find our regional African and domestic operations do very well although we have seen some softening in the load factors. Part of the reason for this is increased competition from low cost carriers. In response, four years ago, we started our own low cost carrier(LCC), Mango, to allow us to differentiate the SAA brand while still competing in an important market sector.Internationallythe

bilaterals that dominate African aviation are a big problem for us. They are far too limiting. There are plenty of markets where we could increase frequency or begin service but can't because of a bilateral agreement or the lack of one.These restrictions are stunting our growth. It becomes a challenge when deciding on our fleet requirements, as we have to consider building in flexibility and efficiency in a cost effective manner.'(IATA CEO Interview, June 2011)

Concerning the fierce competition from international carriers (Foreign carriers) Mzimela's view is that although the international carriers have advantage over African airlines, the later should never try to stop competition. She takes the case of Lufthansa and Air France to show how freedom to fly wherever they want makes them a stronger airline while SAA is trying hard to get rights to serve profitable African destinations(IATA CEO Interview, June 2011).

The idea and call to merge the-sub Saharan three airlines (Ethiopian Airlines, Kenyan airways and SAA) was officially presented by Kenyan Airways CEO, Titus Naikuni (Dr.) at the 44th AFRAA annual general assembly in Johannesburg on 19th of November 2012. According to Naikuni 'there is no way we (African Airlines) are going to survive as small airlines', he further argues bringing the three African carriers together alone would create a strong one airline that can compete with the giant competitors in the industry.

Data from Center for Aviation (2012) about the proposed merger between the three big sub-Saharan African airlines showsalthough these airlines look big in the context of Africa, they are small in the face of the global giant airlines.

For instance, the combined revenue of the three airlines would amount to only 37 % of Emirates and in terms of passenger number, they can transport (combined) half the passenger numbers served by Emirates in 2012. The combined seat capacity of the three airlines is 650,000 weekly, which will make it the 30th largest airline globally. The center for Aviation further looks in to the trend of consolidation of airlines in Europe, America and Latin America to come up with few major airlines that can survive the fierce competition. In Europe, Lufthansa, Air France-KLM and British Airways/Iberia parent IAG came out a strong airline in a region where there are 27 countries. Whereas in the United States, United and Continental have come together along with Delta and Northwest and in Latin America mega mergers in recent years with LAN and TAM and with Avianca and TACA coming in to the picture (center for aviation, 2012).

The initial reaction from Ethiopian airlines on the proposed merger was to agree in principle for the industry relies in economies of scale and hence size matters. The CEO Tewolde Gebremariam argues the idea of a major pan African airline group should be discussed as airlines are being challenged by not only big carriers but also by governments who treat these carriers as a strategic national asset (Center for Aviation, 2012).

But later on, Ethiopian airlines, by far the biggest and successful airlineespecially in recent periods, of the thought airlines to come to merger seems to find it difficult to form a merger with Kenyan airways. The reasons for this asgiven by Wegayehu relates to the different airline ‘club’ the two airlines subscribe to (Ethiopian airlines is a Star Alliance member while Kenyan Airways is a Sky team member) and the recent poor performance that forces the latter to lay off more than 600 employees while Ethiopian airlines continues to expand and grow in most of its operations(Interview with Wegayehu Terefe, Vice president of corporate strategy and international Affairs, Ethiopian Airlines, on 17 April 2014, Ethiopian airlines headquarters).

Furthermore,Kenyan airway is located in the same geographical region as that of Ethiopian airlines which makes it a rival and competitor for the same market. Another difference that might well affect the merger is the ownership structure: Ethiopian airlines is a 100% state owned company while Kenyan airways is a share company listed on the stock with the Dutch KLM airlines owning 26% share. Consequently, from Ethiopian airlines stand point it is better to operate as it is doing currently as it is hard to envisage a merger with Kenyan airways but leaving some room for merger or some sort of arrangement with South African airways and Egypt air (Interview with Wegayehu Terefe, Vice president of corporate strategy and international Affairs, Ethiopian Airlines, on 17 April 2014, Ethiopian airlines headquarters).

There is also a model that Ethiopian airlines opts for, in the CEO's words

'Ethiopian Airlines is planning something similar to LAN. We are looking at a franchise model where we manage a franchisee airline but do not exceed a 50% equity stake so we stay within bilateral rules. But we cannot use the name of Ethiopian all over Africa. People like to see their country name. In Togo, we have a 40% stake in Asky, for example, which stands for African Sky. So I do not think Africa is ready to follow in LAN's footsteps just yet, but it will come.'(IATA CEO Interview, June 2013)

This is also explained by Wegayehu as a multi- hubing scheme that the airline has envisaged and worked very well by setting up hubs at west, central and southern Africa by holding stakes in the airlines based in the region. As example Asky airlines serves 22 destinations from its hub in Lome. This originates from Ethiopian airlines' long history and vision of addressing African market serving as a pan African airline (Interview with Wegayehu Terefe, Vice president of corporate strategy and international Affairs, Ethiopian Airlines, on 17 April 2014, Ethiopian airlines headquarters).

Given the position of Ethiopian airlines presented in the above discussions, the issue of merger is an unlikely scenario to happen especially with Kenyan airways which is the proponent of the idea. This comes in a time when the small carriers are calling for help and better cooperation from the bigger airlines let alone among the bigger airlines themselves.

3.3PROSPECTS

Notwithstanding the challenges, there is also a bright side of the industry in some parts of the continent which might well sprinkle in to the rest of the region if cooperation and emulation proceeds in the proper way.

Looking at the prospects of the African air transport industry, all forecasts made by Boeing show a positive indication on the growth rate of both passenger numbers and cargo transported (Boeing commercial, 2013). They relate this mostly to the growing economy, tourism and population in the continent combined with its geography and vast land.

According to Boeing’s long-term market forecast,optimism on African air transport in the future comes from expectations of high economic growth that weathered global financial crisis (2008 and 2009) despite a weak global outlook (Boeing current market outlook, 2013).Consistent with economic growth, air travel demand to or from and within Africa is forecast to outpace world average growth at 5.7 % annually (World airline traffic is forecasted to grow at an average of 5 %). Growth to and from other emerging markets is expected to lead the way, as airlines both in Africa and other emerging market regions are planning to increase inter-regional connectivity (Boeing

Commercial,2013). This makes Africa one of the few regions that outpaces the world average based on forecast data from Boeing current market outlook, 2013.

Table 3.3 presents one of the key indicators of airline industry growth (airline traffic growth rates) for different regions of the world until the year 2031 in terms of the intra and inter regional operations.

Table 3.3 world Airline Traffic growth rates by region 2012-2031

	Africa	Latin America	Middle East	Europe	North America	Asia Pacific
Asia Pacific	7.4%	5.4%	7.2%	5.7%	4.8%	6.7%
North America	6.0%	5.1%	6.4%	3.8%	**2.2%**	
Europe	4.8%	4.6%	5.1%	**3.5%**		
Middle East	6.9%	-	**5.1%**			
Latin America	8.3%	**6.5%**				
Africa	**6.2%**					

Source: Boeing current market outlook (2012-2031), 2013.

Table 3.3 shows the African airline traffic growth records the highest rates in the Latin America and Asia pacific regions with 8.3% and 7.4% respectively. The two figures are by far the highest for the global air traffic growth forecast.

With regard to airline startups the prospects of new and smaller African airlines coming in to the picture has been observed in recent times. According to Airline Leader (2012) Africa's potentially rich aviation pickings are now attracting a new breed of start-ups. Some, like Starbow and fastjet, have ambitions to develop pan-African networks through franchise models as a way to overcome bilateral restrictions. Others, including Africa World Airlines and Korongo Airlines, are focused on their domestic markets and regional services to neighboring states. While several of the start-ups are backed by their respective governments, it is a promising sign that the strongest contenders are both largely or wholly privately owned and funded.

Africa is as a result poised to become the next emerging growth story as the world turns to the continent's bountiful resources, from minerals to oil and water. The emerging middle class, with its higher propensity to travel, will inevitably have an increasingly substantial role in regional aviation as well as in local and international tourism traffic.

CHAPTER FOUR: CONCLUSIONSAND RECOMMENDATIONS

4.1 CONCLUSIONS

The results of the analysis of the data on the market share of African and non-African airlines both in the intercontinental and intra-African operations along with comments gathered and analyzed from LinkedIn groups and interviews with executivesof the major African airlines render in the following conclusions.

With regard to the trend of the share of the African Airlines as compared to the foreign carriers the following trends has been observed;

i. In the intra Africa sector the African airlines are performing excellent with a general annual market share of above 95%. Although there was a slight change in favor of the non –African airlines, it was not significant (with a very low coefficient of variation of 1.58%) and does not last long.
ii. The intercontinental capacity share of African airlines in terms of passenger number shows a decline of an average of 4.1% for most part of the last six years under consideration. The Africa-Europe and Africa-Middle East regions are the sectors with the highest volume of intercontinental flights to or from Africa. In those regions the African airlines have lost about 12% seat capacity share in 6 years time with the Middle East airlines taking much of the share lost by the African carriers. This is in line with the report by African airlines of stiff competition from Middle East and Gulf airlines discussed in section 3.2 (challenges).

This shows how the issue of fierce foreign competition has come in to the picture of the already existing challenges and problems of aviation. This has also been identified as one of the challenges of the major African airlines as per the interview with Ethiopian airlines and the discussion on LinkedIn groups.

Besides, the discussion has shown the top 10 African Aviation problems in major airlines to be protectionism, open skies, Foreign Competition- Gulf Airlines, political interference, corruption, development funding, brain drain, training, customer service and Airport infrastructure. Most of the challenges stated also apply to Ethiopian airlines with a differing degree and impact.

Concerning the prospects of the African Aviation industry Boeing's forecast for Africa shows a strong growth for passenger and cargo air traffic. This is in connection with the growing middle class, the emerging economies, relation with the Asian economies and tourism. It is also forecasted that the number of start- up airlines with franchising model will increase, which may significantly increase the share of African airlines in the world market.

4.2RECOMMENDATIONS

Africa has huge potential for air transport, and air transport in turn serves as a catalyst for the economic and social development of the continent. From the findings and discussions above it is apparent that the future holds a great opportunity for Africa in terms of market, the question remains whether Africa especially its Airlines are ready or will be in the near future able to harness the industry for the betterment of the people of Africa.

Some African governments should also know the detrimental effects of giving traffic rights for foreign carriers while restricting the market for African airlines will have on the overall African air transport industry and on their respective countries. In this regard regional and continental institutions should work hard in creating collaboration and dialogue forums. In line with its mission of creating a unified Africa, The African Union (AU) and its specialized body AFCAC along with the AFRAA should work on developing policies that will promote African air transport and create collaboration among African states.

Given the declining market share of African airlines in the intercontinental operations a mechanism by which their capacity can increase should be put in place. One such mechanism that has a proven record of success in the industry is joint venture and merger. The doubts and concerns about joint ventures and mergers are well understood. But the world trend and the African context imply deeper integration and joint venture is essential and inevitable. It is only the way the partnerships, airline collaborations or mergers are structured and managed that determines its success.

Hence it is highly recommended to build a strong foundation and determine the right structure beforehand as trust with previous competitormight not come easily. Equitable and flexible arrangements should be in place from the beginning and all parties should focus on common goals. These greatly help in building trust and align incentives in the same direction for all.

It might also be the case that competition from the foreign carriers serves as a wakeup call for African airlines and states to modernize their fleet and the industry at large. As in the brain-drain challenge where some major African airlines changed the situation in to an opportunity, the challenge with respect to the competition from foreign airlines can be used by African airlines to improve service quality and operate the airlines with market and commercial considerations alone.

Evidently the potential for achieving full maturity within the global challenges faced by Africa remains within the African states and their airlines, hence Autonomy in Airline operations and cooperation among African airlines and states is they key that could open the door for the improvement and development of major African airlines and Air transport inAfrica.

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APPENDIX 1

Guideline for interview with Ethiopian Airlines official

1. While airlines all over the world are struggling to stay afloat, Ethiopian is reporting a remarkable growth. What are the reasons behind this?
2. As an icon of the African Airline industry and serving the continent with more destinations than any other carrier, what are the major challenges that you face in your services (Business) in the African market ?
3. What are the challenges that African airlines in general and Ethiopian airlines in particular facing today (in terms of market, human resource, competition, safety, infrastructure, finance and Government). (Both in the intercontinental and intra Africa operations)
4. What is the impact of Gulf and Middle Eastern airlines on the Expansion and growth of Ethiopian airlines?
5. Is there any role for mergers and alliances in overcoming some of the challenges faced by Ethiopian airlines? (Is there any chance for a pan African airline in the near future?)
6. Given the slow progress of the Yamoussoukro Decision, What do you want to see in the liberalization process of Air transport in Africa?

7. What does the future hold in terms of Air transport for Africa? [In light of the operation of Ethiopian Airlines in Africa]

APPENDIX 2

DISCUSSION TOPICS ON LinkedIn AFRICAN AVIATION FORUMS

The following discussion topics were posted in the forums; here the topics are put along with the groups that post it.

- What are the major challenges of the African aviation industry? (*African Aviation*)
- What are the most important challenges that the major airlines should address if they are to survive in the very competitive environment? (*African Aviation professionals*)
- What are the major impediments that hold the African Air Transport industry back? (*African Aviation and African Aviation Professionals*)
- Does air transport in Africa hinder or promote growth (development)? Let us discuss on the real problems of the industry in Africa (*African Aviation* and *African Aviation Professionals*)

APPENDX 3

ANOVA TABLES

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DATASET ACTIVATE DataSet1.
ONEWAY African BY NonAfrican
```

ANOVA

African

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	39.333	5	7.867	.	.
Within Groups	.000	0	.		
Total	39.333	5			

```
ONEWAY African BY NonAfrican
```

ANOVA

African

	Sum of Squares	df	Mean Square
Between Groups	140280.667	11	12752.788
Within Groups	.000	0	.
Total	140280.667	11	

```
ONEWAY Middleeast European BY African
```

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Middleeast	Between Groups	75.714	5	15.143	7.571	.269
	Within Groups	2.000	1	2.000		
	Total	77.714	6			

	Between Groups	20.857	5	4.171	2.086	.480
European	Within Groups	2.000	1	2.000		
	Total	22.857	6			

Declaration

I, the under signed, declare that this thesis is my original work and has not been presented for a degree in any university, and that all sources of the materials used for the thesis have been properly acknowledged.

Name Kidane Getachew

Signature _____________

Date of submission: May 30, 2014

Place: Addis Ababa University

This thesis has been submitted for examination with my approval as a university advisor.

Name of the advisor: Kidist G/Selassie (PhD)

Signature__________

Date of approval___________________