Abstract
In the past few decades, the global aviation industry has grown dramatically, driven by the increasing interdependence of economies (globalization) in both industrialized and developing countries. Consequently, the aviation industry has become a strategic sector, providing employment, spurring foreign direct investment, providing linkages to other sectors of the economy, thus, reinforcing the emergent global production chains. In Nigeria, although the aviation industry has a long history predating the nation's independence in 1960, it was however in the 1970's, in the wake of the oil boom, that the sub-sector witnessed rapid expansion, with the increase in the fleet of the National carrier, the Nigeria Airways, as well as the expansion in the number of the nation's airport and navigational facilities. However, the prolonged economic recession that began in the early 1980s, coupled with the cumulative neglect of the sub-sector by past administrations have left Nigeria's aviation industry in an unenviable position, manifesting in under-performance, institutional decay and dilapidation of infrastructure. Against this background, this paper proposes a comprehensive reform agenda with the over-arching objective of repositioning the nation's aviation sub-sector for better performance and meaningful contribution to the nation's economic growth and development.

The Dynamics of the Global Aviation Industry
The aviation industry can be defined as those activities that relate directly to transporting people and goods by air from one location to another. The industry comprises various activities, including airline and transport operations, scheduled and chartered flights for passengers and freight, general aviation aircraft maintenance, as well as air traffic control and regulation. It also includes activities directly serving air passengers, such as check-in, baggage-handling and on-site retail and catering facilities (OEF, 1999).

The profile of the global aviation industry has risen dramatically, particularly in the past several decades, as air travel has become the most popular means of transportation between countries and increasingly within countries. Globalization has also fuelled accelerated growth in the global aviation industry, contributing to economic growth in both industrialized and developing economies (Abeyratne, 1998).

Global Trends and Development
The global aviation industry is growing at a phenomenal rate and industry analysts believe that the industry will be much larger in the future. For example, aviation has the highest growth rates of all modes of transportation. Between 1970 and 1995, the number of kilometers flown by passengers worldwide grew by 360 percent, from 551 billion to 2,537 billion. Growth in the aviation industry has been particularly impressive in the industrialized economies, which are the drivers of globalization. For example, the United Kingdom's Aviation Industry has grown dramatically since the 1970s. In 1970, 31.6 million passengers passed through U.K. airports. By 1995, the number of passengers has increased rapidly to 129.6 million. This trend represents an increase of 310 percent over a period of 25 years. Over the same period, the number of flight in and out of UK airports increased by 166 percent.

Various studies have examined the dynamics of the global aviation industry, as well as future prospects. There is a consensus that the industry faces long term growth that is unprecedented. For example, the 20-year period between 1995 and 2015 is predicted to record a growth of 122 percent for the global aviation industry (Whitelegg and Williams, 2000). In 1995, the worldwide total of passenger kilometers flown was 2,537 billion. By 2015, the worldwide total of passenger kilometer would be 5,539 billion. The forecast also shows that by 2050 the figure would have risen by 450 percent (compared to 1995). The worldwide total of passenger kilometers would be 5,639 billion.
The Emergence of Freight Aviation

One of the main features of contemporary aviation sector is the emergence of freight transport as an integral part of the aviation industry. The growth in air transport has been accompanied by an increase in air freight, which transports personal, commercial and industrial goods. Freight aviation has been instrumental in transporting various goods across the world, enhancing productivity and spurring growth and development.

In the 10 years up to 1995, the figure for worldwide tonne kilometers of freight more than doubled to 83.1 billion. Airfreight is expected to grow rapidly into the future. At present, most airfreight is carried on passenger aircraft. But forecasts predict that by 2050, there could be as many as 19,000 freight aircraft, comprising up to 31 percent of total global commercial fleet. Increase in air freight is being driven by the emergent pattern of global supply lines as well as increased industrialization in China and India, the world's most populous countries.

The rest of the paper is divided into three sections. Section two examines the aviation industry and the global economy. Section three focuses on the state of Nigeria's aviation industry and the enormous challenges confronting it. Finally, section four, concludes the paper with pertinent recommendations and concluding remarks.

Aviation Sector Contributions to Economic Growth

The aviation sector is regarded as a strategic industry, not only for its potential for economic growth but also its crucial role in national development and regional integration. The civil aviation industry features some unique characteristics that distinguish it from other industries. These include the following (Findlay and Goldstein, 2004):

- Dominant state ownership, with some degree of immunity from competition policy.
- Pervasive of controls on entry, capacity and tariffs
- Existence of an international regime with both bilateral and multi-lateral organizations and institutions.
- High degree of vertical integration, with some control and ownership links between physical infrastructure, air and ground service.

Indeed, the most important contribution aviation often makes to the economy is through its impact on the performance of other industries and as a facilitator of their growth (OEF, 1999):

It also contributes to economic activities in its own right as illustrated below:

- An integral part of transport infrastructure:
  The aviation industry is part of transport infrastructure on which many other part of the economy depends. It contributes to the economic growth, providing better transport link across the economy.
- The Aviation industry also facilitates productivity growth because of its position as rapidly growing sector that catalyzes foreign direct investment, tourism and related industries
- The aviation industry is a sector in its own right employing aviation workers and providing livelihood opportunity to service providers in the industry.

The Nigerian Economy and the Aviation Industry

Nigeria's economy is the second largest in Sub-Saharan Africa, after South Africa's. Endowed with natural resources in the mining and agricultural sectors, the national economy relies on primary commodities for both national income and foreign exchange earnings (CBN, 2000; Van Buren 2001; United Nations, 2001). At independence in 1960, agriculture was the mainstay of the economy, providing enough food for the nation's teeming population, supplying raw materials to industry, creating employment for the majority of the workforce and fetching the bulk of the nation's foreign exchange earnings. However, by the early 1970s, the profile of the Nigerian economy changed. Agriculture was replaced by the Petroleum industry as the cornerstone of the nation's economy. As oil production accelerated, so did the revenue profile of the Federal Government, a development that spurred crude oil exports from Nigeria. By the middle of the 1970s, crude oil exports accounted for over 80 percent of government revenue, 90 percent of foreign exchange earnings and over 30 percent of Gross Domestic Product (GDP) (Obadan, 1998).

The consequences of Nigeria's over-dependence on crude oil manifested by the late 1970s, when global economic recession and excess supply of crude oil triggered a sharp decline in the prices of crude oil. By the early 1980s, the nation's economy was in deep shock, constrained by external and
internal factors. In 1986, the nation's crisis was so severe that the Federal Government initiated an economic reform agenda, culminating in the Structural Adjustment Programme (SAP). The initiative aimed at fostering economic stability and liberalization. The social impact of SAP was particularly difficult, as subsidies were removed across the economy and government embarked on privatization and commercialization of State-owned enterprises. Jobs were lost in both public and private sectors, increasing unemployment rates in the economy. The prolonged economic recession triggered mass poverty in Nigeria to unprecedented levels. By the late 1990s, endemic poverty had risen to about 70 percent of the nation's population (CBN, I999a).

The inception of a democratic government in 1999, brought renewed hopes about the transformation of Nigeria's socio-economic profile. The search for an enduring socio-economic transformation of Nigeria culminated in the adoption of a medium-term policy framework dubbed "National Economic Empowerment and Development Strategy" (NEEDS) in 2004. NEEDS, is a development policy document aimed at transforming social and economic livelihoods of Nigerians within the next few years, hinged on a sustained agenda of effective reforms. Table 1 shows selectee Macroeconomics indicators for Nigeria, as well as projections for the near future.

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<tr>
<th>Table I: Nigeria's Selected Macroeconomic Indicators, 2003-2007</th>
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<td>Year</td>
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<td>Real GDP (%)</td>
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<td>Oil Sector</td>
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<td>Non-oil sector</td>
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<td>Oil Production (mbd)*</td>
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<td>Federal Government Finance (% of GDP)</td>
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<td>Retained Revenue</td>
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<td>Total Expenditure</td>
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<td>Money and Credit (Growth rate %)</td>
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<td>Net Domestic Credit</td>
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<td>Net Credit to Government</td>
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<td>Credit to Private Sector</td>
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<td>Narrow money (M1)</td>
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<td>Broad Money (M2)</td>
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<tr>
<td>External Sector</td>
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<td>Overall Balance (% of GDP) Current</td>
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<td>Account Balance (% of GDP)</td>
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<td>External Reserves (US $ million)</td>
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Note: + Provincial
* Million barrels per day.


Nigeria's aviation industry is an integral part of the nation's transport sector. The industry comprises both domestic and foreign airlines operating scheduled and chartered flights within and outside Nigeria. The nation's long-standing recession has created a negative impact on the aviation industry. Economic constraints have also undermined the demand for air travel and reduced government allocation to the sector, resulting in the dilapidation of aviation infrastructure, with the attendant consequences for safety and growth.

Until recently, Nigeria's aviation industry was severely regulated, with the now defunct.
State-owned monopoly, Nigeria Airways operating domestic and international flights. However, as a result of bad management, as well as massive corruption, the Nigeria airways fared badly in the 1980s and 1990s, culminating in its eventual liquidation. Meanwhile as part of government's economic reform agenda, the aviation industry was deregulated in the 1980s, paving the way for private investors to operate scheduled and chartered flights on domestic routes. With the demise of Nigeria Airways, international routes were fowed out to private operators to create a level-playing field in the industry. In 2005, Virgin Nigeria was created, with a foreign ownership standing at 51 percent. The Nigerian government owns the balance of the share-holding structure. These developments have created a fully de-regulated framework for Nigeria's civil aviation industry.

The Nigerian aviation industry is yet to contribute significantly to economic growth. Despite the potential of the sector to create employment and spur the development of other industries, such as the hospitality and tourism sectors, lack of adequate infrastructure has constrained the aviation industry in Nigeria. The under performance of the aviation industry is apparent in the sectoral contributions to the nation's GDP as illustrated in figure 1.

![Figure 1: Sectoral Contributions to Nigeria's GDP Growth, 2003 (Percentage). Source: ADB/OECD, 2005.](image)

Figure 1, shows the sectoral contributions to the nation's GDP growth, dominated by the mining and agricultural sectors. On the other hand, the transport and communications sector of which the aviation industry is a part, contributed less than 1 percent of GDP growth in 2003. This is the manifestation of the lack of dynamism that characterizes the aviation industry in Nigeria. Since the inception of democratic governance in 1999 however, efforts have been made to reposition the aviation industry for effective performance. More reforms are being proposed and implemented to foster growth and dynamism. The tasks are quite challenging because recent trends continue to show unimpressive performance. For example, the number of passengers departing and transiting within Nigeria in 2003, dropped relative to the level in 2002. The numbers of departing and transiting passengers were 646,777 and 31,261 respectively for 2003. Arriving passengers grew from 611,307, in 2002 to 614,770 in 2003, while arriving aircraft grew from 6,930 in 2002 to 7,869 in 2003 (VC, 2004).

The State of Nigeria's Aviation Industry

The Nigerian aviation industry is a key segment of the national economy, acknowledged for its strategic contributions. The industry pre-dates the country's independence in 1960, providing a platform for commercial activities in Nigeria's relatively large and diverse geo-political zones.

The Evolution of Air Transportation in Nigeria

Foreign airlines began to operate in Nigeria after World War II, when the British Overseas Airways Corporation (BOAC) replaced Imperial Airlines to service routes covering the Gambia, Ghana, Sierra Leone and Nigeria. In 1957, following Ghana's independence, the Nigeria government, BOAC and Cider Dempster formed the West African Airways Corporation (WAAC Nigeria Limited. And in 1959, the
Federal government bought over the shares of BOAC and Elder Dempster and renamed the outfit Nigeria Airways Limited. The aviation industry was regulated in its early days by the Ministry of Civil Aviation, with three parastatals in the Nigeria Airways Limited. Nigeria Airport Authority now known as Federal Airports Authority of Nigeria (FAAN) and Nigeria College of Aviation Technology (CBN, 2000).

From an operational standpoint, Nigeria's aviation industry could be classified into three areas: domestic transport; international air transport and specialized air services (helicopter services, air ambulances, aerial surveys and executive charter). In order to enhance these services, some airports were upgraded to international standards, with necessary navigational aids and infrastructure, while Nigeria Airways became the national flag carrier. Nigeria Airways remained the only domestic airline licensed to operate as scheduled carrier until its monopoly was broken between 1985 and 1992. When about 25 airlines were licensed to operate non-scheduled cargo and passenger air charter services within and outside Nigeria. By 1994, the number of licensed private airlines rose to 28, 14 of which operated passenger services, while 7 and 7 operated cargo and charter flights respectively. Also, two of the private airlines were granted permission to operate international routes in 1995.

The phenomenal growth of private airlines in Nigeria was also matched by the development of airports around the country. With about 78 landing fields in Nigeria, private interests owned and operated 30 fields. By 1998, FAAN operated 18 airports across the country, with locations in Abuja, Kano, Benin, Calabar, Enugu, Ibadan, Ilorin, Jos, Kaduna, Lagos (Ikeja), Maiduguri, Port Harcourt, Sokoto, Yola, Minna, Akure, Makurdi and Owerri. Apart from Lagos, Kano, Abuja and Port Harcourt, which operate both domestic and international services, others are mainly restricted to domestic operations. Most of the airports could not be used effectively because of the low growth of the aviation industry, which has been plagued by bad management and the dearth of physical infrastructure. Inadequate funding by government has been blamed for the poor state of the nation's aviation industry.

The Challenges of the Aviation Industry

Prior to 1983, in the wake of the nation's economic recession, Nigeria had a virile, dynamic and growing aviation industry. Nigeria's oil boom of the 1970s, contributed enormously to the growth of the aviation industry. Increased government revenue realized from crude oil exports generated the resources invested to provide aviation infrastructure, including airports and related facilities. The national carrier also expanded its fleet of aircraft enhancing its domestic and international services. The oil boom also facilitated higher aviation traffic on both local and international routes, making aviation business highly profitable, until the nation's economy was hit by a deep recession in the early 1980s. Consequently, the aviation industry was characterized by rising cost, poor management, policy inconsistencies as well as the unfriendly investment environment (The Guardian, 2005).

The neglect of the nation's aviation industry by past administrations has created an institutional decay in the sector, undermining performance and growth of the industry. This cumulative neglect of the aviation sub-sector came to the fore lately with spate of incidents and disasters (with two of such major disasters occurring within Ewo months). These negative developments have created immense fears and anxiety in the minds of air travellers, thus, necessitating the urgent need for thorough cleansing of the litany of rot in the industry. Some of the industry's most important challenges include (Borishade, 2005; Business Times, 2005; The Guardian, 2005):

- Infrastructure, security and safety deficiencies
- Foreign investment mobilization
- Technical partnership subscription
- Obnoxious policies
- Delays in indemnifying air crash victims.

These obstacles have combined to undermine the industry's performance and its inability to meaningfully contribute to the nation's Gross Domestic Product (GDP), unlike in most other nations of the world.

These developments call for a holistic reform agenda aimed at repositioning the industry for better performance and the development of the nation's economy.
Recommendations

In order to re-position the aviation industry for better performance aimed at making Nigeria a regional hub of air transportation, the following recommendations are pertinent:

- **Create Institutional Reforms:** The reform agenda should embrace regulatory mechanisms to be adopted by the Ministry of Aviation, the Federal Airports Authority of Nigeria and the Nigerian Airspace Management Agency. This is aimed at restoring operational efficiency, safety mechanisms, as well as implementation of relevant international Civil Aviation Conventions and Protocols.

- **Provide Enabling Environment:** Government should adopt a mix of financial and administrative incentives aimed at attracting investors to the industry. These include tax holidays reduction or exemption from excise duty on selected goods imported into the country for use in the industry.

- **Initiate Public-Private Partnership Agenda:** It is an imperative to adopt a public-private partnership agenda as an effective vehicle to transform the aviation industry. Reforms must take into cognizance the primacy of the private sector and allow operatives in the aviation sector to build and manage aviation infrastructure in order to conserve public resources and also engender transparency and accountability.

- **Spur Regional Integration:** The nation must move to become the regional hub of the aviation industry, which would allow operatives in the nation's aviation industry to capture the regional market in West Africa.

- **Special Financing for Acquisition of New Aircraft:** Government, financial institutions and industry operatives should create a special fund to be administered by banks to finance new aircraft for use in the nation's aviation industry.

- **Increase Level of Capitalization for Airlines:** In order to re-position the nation's aviation sector for higher performance aimed at meeting global competition, the capital base of commercial airlines should be increased considerably, allowing the flow of additional capital into the industry.

- **Adequate and Timely Compensation for Air Crash Victims:** The National Assembly should set a reasonable time limit for the submission of reports on all aviation accident cases, as against the present time frame of 2 years. Such prompt response to accidents and quick payment of liability to air crash victims would go a long way in restoring public confidence in the air travel industry.

Concluding Remarks

The aviation industry has grown in both industrialized and developing economies, contributing to economic growth and development in many countries. However, a dynamic aviation industry depends on the private sector, which can provide the enabling environment for the industry. In the case of Nigeria, the aviation industry has not contributed to economic growth because of the negative position of the industry, particularly in the past couple of decades. The demand for air transportation in Nigeria has been low due to the low disposable income profile of most Nigerians. Many have come to identify air travel in Nigeria with the rich and the famous. The nation's poverty is to blame for the low demand of air services in Nigeria. Also, inadequate government funding is responsible for the decay of infrastructure across the industry, which constrains optimal operational performance.

References


