

# THE CONTRIBUTION OF AIR TRANSPORTATION TO THE SOCIO-ECONOMIC DEVELOPMENT IN GHANA

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## ABSTRACT

Ghana's Aviation industry features a significant role in the development of the nation's economy by stimulating exchanges between countries and facilitating global business relations. In this, better air services are especially important, because Improvements within the transport infrastructure could raise living standards and alleviate poverty in Ghana by lowering transport prices, supporting an economic upswing and increase personal mobility. This study however, analyses the contribution of transportation to sustainable development in Ghana and considers what policies towards aviation would best promote sustainable development over the subsequent years. Information springs from the literature, work place counts and resource persons.

**KEYWORDS:** Aviation, Air Transport, Socio-Economic Growth and Development & Ghana

## 1. INTRODUCTION

Air transport is one very 'ebullient' industry which has become very scientific geared toward studying all the complex variables that potentially could affect optimum performance and profit margins. Knowing its great impact on a nation's economy, it is also one amongst the world's prime industries in terms of development and technical service achievements. This is because; the expansion within the aviation sector helps so much in economic and social development of the nation and the globe. Conversely, the economic growth can even have significant effects on air transportation expansion. This is often the case of the event of hard infrastructures like airport ones. The correlation between economic growth and air transport has been examined, among others, using statistical methods such as regression analysis.

Despite the mentioned impacts of air transport on economic development, there are few studies addressing the causal relationship between these variables. This sort of body of literature has emerged in the last years of which the actual thrust of globalization is the priority here, but there are also feedback loops due to developments in air transport sector shaping the form and speed of a nation's development, globalization and related processes. The aim of this paper is to raise the extent of awareness of the developmental needs of the aviation sector especially, within the deprived and destitute regions of the country, and make attempts to find solutions to the myriad of problems facing the sector, as well as suggest ways the local indigents can benefit from the sector. The air transport industry has great potentials such as job creation, improve on the standard of education and academic infrastructure and typically improve the living standards of the people.

These potentials serve not only the enhancement of material well-being, but also generate individual and societal self-esteem. The next section talks about the establishment of air transport in Ghana from the colonial era to date. Section 3 analyses the economic advantages of the air transport industry. These merits are categorized under direct, indirect, induced and catalytic impacts. Section 4 explains the relationship between Ghana's GDP and passenger throughput. Section 5 talks about Ghana's airport vis a vis poverty alleviation. Finally, section 6 concludes this discussion by summarizing the foremost findings of this paper, additionally to suggestions and contribution. This paper will have an

impetus on the poverty alleviation strategies of Ghana

## 2. LITERATURE REVIEW

In October 1918, Vickers Aviation Limited invited Sir Frederick Gordon Guggisberg, then governor of the Gold-Coast, to authorize the deployment of their aircraft within the colony. Swinton Limited (Air transport operators) in 1919, London, also gave out an application to ascertain negotiation with the colonial government on aerial transportation. Hence, the governor summoned a four member commission to submit a feasibility report on “Air Transportation within the Gold Coast”. Upon a favorable report from the commission, the nation’s government opened the approach for survey work on the institution of aerodromes within the colony. The subsequent sites and locations were counseled once the survey work: Accra-Polo Grounds (Now Nkrumah Museum), Kumasi old Polo Grounds, and in Tamale-the police Parade Grounds. Thus, airfields were constructed to serve the transport needs of the country.

After an air tour round Africa in a very hydroplane by Sir Alan Cobhan of Alan Cobhan Aviation Company of UK, a report was presented to the Governor, Captain Rattray, within the subsequent words: “I trust that zeal and keenness everyone displayed won't be permitted to die away entirely, but all those good works on the part of individuals who helped and largely contributed to make this flight successful, will soon bear fruits and produce appreciably nearer the day when Ghana can boast of its own air service”. The first aircraft ever to travel to the country landed on 15th April, 1928, piloted by Sir Alan Cobhan in a hydroplane called “Singapore”. The Kotoka International Airport (KIA) was constructed in the prewar years on a tiny low scale to function an instrument of expeditious transportation of mails, goods and persons and for economic development in British region. The KIA received an infinite facial uplift after the world War 2, when its location was recognized as advantageous.

Then Accra Airport, the KIA was identified as a strategic staging-post for the re-enforcement of Allied Forces in geographic area and also the region. Further development in aviation then took the form of providing and increasing facilities including: extension of existing runway, building of tower, Hangars, workshop and other technical buildings. This intended to equip and convert then Accra Airport (KIA) into a military Aerodrome to satisfy the wars’ vital necessities for victory. The colonial government returned the administration of the Air service to civil use after the Second warfare. This brought about the recruitment of decommissioned Ghanaian soldiers into several sections of the transport service. After the approval of the Civil Aviation Act in 1958, the ability to regulate civil aviation and air navigation, evolving in the republic, was vested within the new Ghanaian government. However, the government of Ghana understood fully the responsibilities of aviation and transport activities in 1960. By 1962, about 800 Ghanaian youth were employed at the transport service, directly.

This variety comprised of complete, semi-skilled, and unskilled labor serving in numerous capacities like traffic management, clerks, clearance, security, cleaner and ramp men. Currently, aside from KIA, Takoradi, Kumasi, Sunyani, and dish airports handle passengers on daily flight schedule basis. Exactly 344 Ghanaian civilians are serving directly in numerous capacities below Ghana Civil Aviation Authority (GCAA), 589 in Ghana Airports Company restricted (GACL) creating a complete of 933 of native labor force. Airline companies (domestic and international) have also engaged an honest number of Ghanaians. In 1986 the PNDC law151, budged the Civil Aviation Department (CAD) name to Civil Aviation Authority (CAA) making it more productive, self-sustaining and financially independent. An Act of parliament further decoupled the functional responsibility of the transport sector in 2006. Hence, entities in-charge of Ghana’s transport services lately is the GCAA and GACL, to make way for optimum output. The core responsibility of GCAA, as

per the act, is to verify safety and reliable air navigation and general aviation development in Ghana.

Registered in 2006, the Act vests the responsibility for coming up with, developing, managing and maintaining all airports and aerodromes in Gold Coast upon GACL. Therefore, in 2011, Ghana's aviation market grew by 15% (my peace fm online.com), and also the identical rate of growth figure is predicted for the industry in 2012. It is significant to note that, like globalization, the entire fashionable world of business is completely tied to the cord of logistics and transportation conceptualization during this 21st century (Joe Effah, Graphic.com.gh). On operational issues, Ghana's airline industry is growing, though small, requiring the operation of an extra international airport to accommodate more airlines and freight. At the time of this analysis, Ghana has twenty eight international airlines and four domestic airlines. Majority of African countries rely on few African based mostly and foreign airlines to supply air services. In keeping with Economic Commission of Africa's (ECA, 2003) study, around seventy fifth of traffic to and from Africa is carried by foreign airlines. Schlumberger (2007, p.38) classifies Ghana below a 3rd class of African countries that have non-public airline operators.

### **3. Impact of Air Transport Industry**

The buoyancy of the aviation industry has a broad economic impact, serving as a facilitator to other industries through its own activities. Under the industry's own activities, the impact may well be direct or indirect. Aviation transports near 2 billion passengers worldwide annually, and 40% of inter-regional exports of products whereas producing US\$ 29 billion, which is comparable to 8% of the world GDP (Oxford Economic Forecast, OEF, 2004).

#### **3.1. Direct Economic Effects**

One good thing about the transportation industry is employment and wealth creation. The industry contributes significantly to improving living standards and alleviating poverty. The industry deploys skilled, semi-skilled and unskilled labor to contribute in diverse ways for expansion. Personnel like clerks, dispatchers, immigration and custom officials, security, flight crew, airline ticketing agents and lots of more are brought on board.

Approximately, 4.3 million civilians worldwide are employed by airlines and airports (OEF, 2004), providing around US\$ 275 billion of GDP to the worldwide economy. About 2.1 million people work for airlines and handling agents worldwide. Examples include flight crew and maintenance crew. Nearly, 1.9 million work on-site at airport in emporium, and restaurants (OEF, 2004).

#### **3.2. Indirect Economic Effects**

Air transport industry generates roughly 5.8 million indirect jobs through purchases of products and services from companies of its supply chain. This supply chain consists of, but not limited to, aviation fuel suppliers, construction companies that build additional facilities, the manufacture of goods sold in airport retail outlets, call centers, and taxi services at the airport.

#### **3.3. Induced Benefits**

The air transportation industry induces employment and wealth development in alliance with direct wages and salaries due workers. Spending by those directly and indirectly employed within the aviation sector support jobs in areas like unit vendors, and firms producing goods (Banks, Insurance Companies, Restaurants). About 2.7 million induced jobs are created globally through spending by industry employees (OEF, 2005). The industry is one in all the foremost efficient sectors measured in terms of GDP per worker. It's estimated that individual employees of the industry contribute about

US\$ 65,000 each year to global economy (OEF, 2005).

### 3.4. Multiplier Effects of the Industry

Industries that stand a tall chance of cashing in on air transport external economies of scale include: trade, tourism, location of investments, labor supply, and market efficiency and levy taxation. Air transport is a pivotal role to world trade. It facilitates countries participation in global market (Globalization) by enhancing access to main markets. Substantially, air transport inspires countries to specialize in activities and to trade with countries producing other products. For example, in Kenya, exports by air of agricultural products like fresh vegetables and cut flowers largely to Europe already constitute one all told the country's largest industries and also the second biggest earner of exchange.

It is also very significant to mention that the earth is effectively shrinking in terms of distance that will be covered during a given measure because of faster and more efficient transport; air transport couple with development in other technologies. Air transport contributes to improved living standards for several developing nations by expanding opportunities to affix the planet economy. Development in technology and infrastructure like jets, airlines, and airports has made several varieties of tourism cheap. Sequentially, tourism directly supports jobs in airline and airport operations. Also, spending of tourists arriving by air creates a substantial number of jobs within the tourism industry.

The tourism industry worldwide directly employs 72 million people accounting for 3.8% world GDP, (OEF, 2005). Tourism relies on transportation to bring visitors: hence, air transport encourages tourism, while the transport industry depends on tourism to urge requests for its services. A 20% of 600 million annual international tourist arrivals worldwide are by air transport. The economic significance of tourism has therefore increased dramatically in recent years. Global tourism expenditure is estimated to be nearly US\$ 3 billion (World Travel & Tourism Council, WTTC, 2005). By 2014, the WTTC expects the tourism industry to use quite 84 million people, globally. The industry comprises of obvious sectors like hotels, restaurants, bars, recreational activities. The obscuring benefits of tourism comprises of retailing in many heavily visited areas.

Other benefits include diversification of economic base at national and native levels, increases public revenue through taxes on individuals and company earnings, leads to development of allied industries with substantial direct and indirect employment opportunities. Around 40% of international tourists now pass air from 35% in 1990 (International Civil Aviation Organization, ICAO, 2004). Ghana is that the leading tourist destination in geographic region. It is the fourth largest foreign income earner after cocoa, gold and remittances (Ghana Statistical Survey, GSS, 2010). Viable air transport links are variety of the key considerations that influence, where international companies choose to invest. In step with a survey, 56% of companies consider international transport link to be crucial factor for locating businesses in Europe. Economic benefits are maximized during a region if it can concentrate on the assembly of these commodities and trade its comparative advantage.

Trading will end in specialization within the under developed regions, to be among economies of scale and better productivity. Increasing per capital income will imply higher savings and investments, and also the process of development set in motion. Air transport improves the labor market by making it easier for companies to draw in top quality employees from round the globe. Similarly, top quality employees from round the country may find it easier commuting by air on weekly basis in two locations (i.e. Headquarters and Regional Location).

Skilled workers and professionals, who previously could reject postings and transfers to the North of Ghana, now accept it during a good fate. Overall, improved access to a wider pool of appropriately skilled labor will improve productivity leading ultimately to higher employment within the local economy. Taxes are being paid to both locals and national authorities round the world through domestic Value Added Tax (VAT) and immigration levies. For example, air transportation is the only transport mode that pays both user charges and taxes. Airport companies also transfer their surplus revenues to the central government as royalties and dividends.

#### **4. Regressive Analysis between Ghana's GDP and Passenger THROUGHPUT**

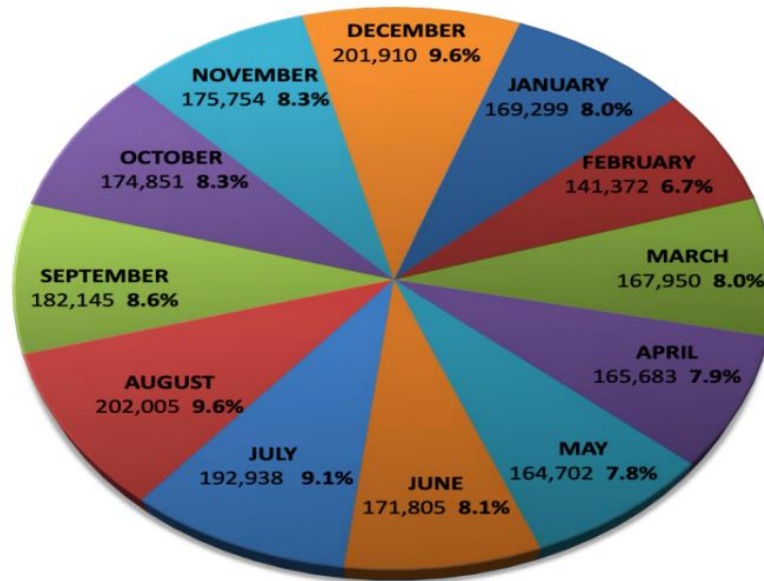
Thirty, out of thirty eight airlines connect directly to different destinations worldwide contributing about \$2.7 billion to Ghana's GDP. Every day, 9.8 million passengers desire the air with 100 and 4 thousand (104,000) flights and some \$18.6 billion worth of products are carried. IATA notes that traffic, globally, has been growing at 5% annually, and is projected to grow at 5.6% p.a. over the next twenty (20) years. It's estimated that the air transport industry in Africa, in 2017, supported some 6.2 million jobs, and contributed US\$55.8 billion to Africa's Gross Domestic Product (GDP), with a 4.5% rate of growth.

In line with IATA, Africa, by 2037, and at an annual rate of growth of 4.6%, will have a whole market of 334 million passengers. The Ministry of Aviation has also initiated plans for a fanatical program, dubbed "Aviation-Driven Developments" that seeks to use aviation as a driver of socioeconomic transformation. Our airports will still undergo systematic face lifts through infrastructure rehabilitation. We also will still open up the country by constructing additional airports to function feeders to Kotoka International Airport. However, Intra-regional travel is on the increase as more and more passengers now travel between Accra and other countries within the sub-region, Ghana Airports Company Limited half-moon passenger data has shown. Regional passenger throughput, which has lagged behind Europe and other regions, accounted for 19.8 percent of the general aviation market as at the highest of March 2019.

Out of a whole passenger throughput of 478,621, Europe accounted for 37.9 percent; nation 19.8 percent; nation, 14.3 percent; M. East, 10.1 percent; Southern Africa, 8.7 percent; geographic region, 4.8%; North America, 4.1; and 0.2 percent for other regions. Travel within the nation sub-region was within the past a difficult task. There are no direct flights between various points within the sub-region. The only Single African Air Transport Market (SAATM) initiative has also received full support from the International Air Transport Association (IATA), as they posit that an open-air arrangement will boost traffic, drive economies and build jobs.

Currently, 28 countries have signed up to the SAATM: Benin, land, Botswana, Cape Verde, Central African Republic, Chad, Congo, Côte d'Ivoire, Egypt, Ethiopia, Gabon, Gambia, Ghana, Guinea Conakry, Kenya, Liberia, Mali, Mozambique, Niger, Nigeria, Rwanda, land, Republic of Republic of South Africa, Swaziland, Togo, Zimbabwe, Lesotho and Cameroon. These countries represent over 80% of the prevailing aviation market in Africa

**2019 (JAN - DEC) GENERAL STATISTICS INT.  
( PASSENGER THRUPUT) - PER MONTH**



**Figure 1**

The value for air transportation, passengers carried into Ghana was 467,438 as of 2018. as a result of the graph below which shows, over the past forty eight years this indicator reached a most price of 691,272 in 2012 and a minimum price of 96,444 in 2004.

**5. Ghana’s Airport in Relation to Poverty Alleviation in Ghana**

The development of Kotoka international airport in reference to poverty alleviation takes the form of “trickle-down effect and polarization” involving the cyclic movement of capital, labor and commodities. This is often more vividly explained by Walter Christaller’s central place theory. The idea posits that the dimensions and distribution of market and repair centers varies per relative size (population and buying power). The opening from the Airport shall lead to growth of employment directly by the industry whereas industry’s suppliers and other related sectors indirectly.

Perhaps, the activities of the industry at the airport may lead to reduced seasonality as surplus labor, during off-farming seasons; seek employment at the forest, gold and cocoa farms at Southern Ghana. Hence, rural-urban migration would be pleasingly reduced. Salaries and benefits due these workers will surely be accustomed reinvest and expand farmlands, trade and businesses back reception. Such investment and business expansion accruing from income earned from airport direct and indirect employment of local labor force, successively create avenues for brand new employment and job opportunities for members of the family, friends, peers and other relations.

Moreover, the airport stands to draw in capital and enterprises to take advantage of the expanding demands for locally produced goods and services. Thus, increases local pool of trained industry’s labor supply. It’s a good asset for educational development and illiteracy eradication, bridging the socioeconomic gap between the north and also the south of Ghana. As an example, although the primary explicit advertising of Bali as a tourist destination came about in 1914, visitations remained small until 1969, when the international airport was opened. The event of the airport followed the opening of the primary large coastal hotel (The Bali Beach Hotel) at Sanur in 1966. Villages grow agricultural products to

feed tourists, perform for tourists in hotels and restaurants.

**5.1. Ghana’s Airport in Perspective**

Second to road traffic aviation is the largest transport sector in the world. To move high value goods and fresh agricultural products to fulfill the wants of the international market, Ghana needs air transportation, which could be a more reliable and faster mode of transportation. The Kotoka International Airport is one with bright future prospects because of its improved set of visual navigational aids, and its runway length of 2435m. Preliminary technological drawings towards upgrading the airport to a world status are complete, awaiting finances and government’s commitment.

In 1929, the destination of the second airplane to land in Ghana was Tamale. The airplane with identification number GE-BZZ was piloted by Captain R.S. Rattray, a provincial commissioner within the gold-coast. Realizing the strategic position of Tamale, the primary republican government of Ghana lead by Dr. Kwame Nkrumah approved the arrangement to build a replacement International Airport, 11 miles North-West of Tamale. The president had reserved hopes of using Tamale Airport because the headquarters of a multinational African supreme headquarters. Unfortunately, the overthrow of Nkrumah in 1966 brought this project to a halt. The planning of the airport included a fancy underground bunker for military aircraft. Initially, it absolutely was used as a detachment base. Construction resumed on the proposed International Airport during National Redemption Council (NRC) regime, led by colonel Acheampong. The Air Force didn’t have expertise to repair the beacon. Consequently, the NRC government instructed the Civil Aviation Department (CAD), with the lads and expertise, to require over operations of the airport (Dwemoh and Associates, 2007 p.23).

**Table 1: Descriptive Features of the Proposed International Airport**

City	Accra
location	<u>05°36’16.8”N 000°10’02.6”W</u>
elevation	205 ft / 62 m
Runway direction	03/21
Runway length	11,165ft (3403m)
Runway surface	Asphalt
lighting	visible
marking	Installed
Parking Ramp	Adequate in size

**6. CONCLUSIONS**

This paper finds that a lot of industries use transport to shorten delivery times as a part of their just-in- time delivery systems. This permits them to deliver products to clients quickly and reliably to cut back cost. Moreover, this study unearths that the transport sector creates direct employment in areas like passenger carriers, air cargo carriers, airline ticketing, and general aviation activities. The industry also creates employment through its supply chain including off-site fuel suppliers, food and beverage vendors, and construction firms.

The impact on the performance and growth is that the industry’s most significant contribution. Examples are ability to serve larger markets, business operations, influences on investments and market, similarly as leisure travel stimulation. In lieu of the foregoing, the study shows that with great ambition, African countries have embraced the virtues of the transport industry at a multilateral level to facilitate intra Africa shipment of products and other people so on reestablish these ostensibly dim realities within the individual countries Ghana’s World Bank-Sponsored trade and investment gateway project aims to draw in export oriented investors and to put the country as a hub in geographical area.

This shall enhance trade and passenger flows through measures like absolute deregulation of the transport industry and investment. The productive capacities of all regions are mobilized by linking them in both structural and organizational sense to the mainstream of financial system. The necessity to cut back inequality and adverse polarization, thereby ensuring greater national progress through collective use of the resources of all areas within the country provides the premise for transport development within the most deprived regions of Ghana. To determine regional development implies, taking deliberate measures that may ensure effective and efficient allocation of national resources in an exceeding way on to achieve relative equity among all regions and social groupings.

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## REFERENCES

1. Airport Council International Europe (2004). *The Social and Economic Impact of Airports in Europe*. Brussels.
2. Dwemoh, E.R.K. and Associates (2007). *History of Civil Aviation in Ghana*, Ghana Civil Aviation Authority.
3. Hilhorst, J.G.M. (1967). *Regional Planning: A systems Approach*. Rotterdam University Press.
4. International Civil Aviation Organization (ICAO, 2004). *Economic contribution of Civil Aviation*.
5. International Civil Aviation Organization (2004). *Economic Contribution for Civil Aviation*.
6. OEF (2005). *Measuring Airline Network Benefits*. Survey Conducted on behalf of International Air Transport Association (IATA).
7. OEF (2007). *Aviation Services for the city of London*. Survey carried out in the central London Business District
8. Oxford Economic Forecast (OEF, 2004): *Regional Employment and GDP impact*. Oxford Economic Forecast (March, 2005 *The Impact of the Express Delivery Industry on the Global Economy*).
9. Oxford Economic Forecasting (OEF) (2005). *The Economic and Social Benefits of Air transport*. A study undertaken for Air transport Action Group (ATAG) Oxford Economics (2010).
10. *The Economic Impact of Air Travel Restrictions*. World Travel and Tourism Council (WTTC) (2005). *Tourism Satellite Accounts*.
11. Yaro, J. A. (2009). *Theory and Practice of Geography, Geog 305*. Institute for Continuing and Distance Education (ICDE) model, University of Ghana.