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The Value Addition of National Civil Aviation Policy Implementation to Airport Development in Nigeria: A Qualitative Assessment

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The contributions of Nigerian airports to economic recuperation and development have become clearer to government, critical stakeholders and international investors who are being strongly encouraged to increase their support to the industry. This has become imperative following the global economic crisis which emerged as a frontline issue that has reinformed the decisions of public policymakers and Chief Executive Officers of organisations. This is not misplaced considering the trend of activities in the aviation sector following the concerted government effort in the formulation of the National Civil Aviation Policy (NCAP) 2013 in Nigeria which addressed the past crises in the industry.

Consequently, the airports have been undoubtedly discovered as the major drivers of Nigerian economy as they are in other parts of the world. Air transport, therefore, is the pivotal point of transportation architecture that created an enabling environment for globalization and movement of the country in all facets. Nevertheless, airports globally as Pizzi (2008) and Mzali (2018) viewed are constantly faced with numerous hurdles of operational efficiency, conformity to aviation industrial guidelines which are stipulated in International Civil Aviation (ICAO) Annexes, Standard and Recommended Practices (SARPs) for the enhancement of passenger experience, and handling of aviation business growth and development. In Africa, for instance, contradictory implementation of international "Standards and Recommended Practices (SARPs)" in the use of Safety Management Systems (SMS) continue to remain a challenge. Thus, prior to the initiation and implementation of NCAP 2013 in Nigeria, the sector has witnessed high challenges of infrastructural investment deficits perhaps due to the country's current high inflationary rate. This unlocked the struggle for the government to establish a substantial platform that will subsequently resonate the aviation industrial changes.

From the above, comparing Nigeria to other developing countries such as Egypt, Ghana, Rwanda, India, Canada, Brazil, China, Ethiopia, the United Arab Emirates, and South Africa, etc. in terms of adequacy or quality of airports infrastructure will show a wide gap between these countries. Hence, before the initiation of NCAP in 2013, infrastructural facilities at the General Aviation Terminal (GAT) in all the regional headquarters of Nigerian airports (Lagos, Kano, Abuja, Port Harcourt and now Enugu and Maiduguri), from where all domestic airlines operate at 60% level have proved to be grossly inadequate, making travel experience for passengers a nightmare. Some of the problems faced by the airports seem to be voiced by some stakeholders in the industry. The Nigerian airports' situation is seen to be the worst of all. "The \$500 million Chinese loans to revamp the airport could not make any Nigerian airport featured in Africa's Top 10 in a 2016 survey, while three South African airports, Johannesburg, Cape Town, and Durham, as well as Kigali in Rwanda, made the list" (E'mbe, 2018; Oriola, 2015; The Punch Editorial, 2017). The classification of the international airport in Port Harcourt as the most horrible by *Sleeping InAirports.net* further created numerous open items in the infrastructural deficit status of the Nigerian airports.

Accordingly, the Nigerian airport sector is majorly bedeviled with the challenges that range from lack of funds to infrastructure. Subsequently, the sector has not been able to produce the expected job-creating growth that is needed due to the lack of improvements in her infrastructural facilities. The small and medium-sized enterprises around the sector have not witnessed growth; "as infrastructure costs and bottlenecks make it difficult for them to be competitive" (Okonjo-Iweala, 2014, p. 138). From the foregoing, therefore, this study will investigate the question of what extent does the implementation of NCAP 2013 positively impacted the development of Nigerian airports sector?

Cross National Civil Aviation Policy: A Review of Relevant Literature

Wensveen (2016) opined that civil aviation is the most high-profile industry in existence but conceivably, one of the most relegated in terms of infrastructural investment. Nonetheless, the civil aviation sector is not free of government policy interventions and individual research for a better situation globally. Several efforts, therefore, have been identified to have stimulated air transport development globally. Ishutkina and Hansman (2011) analyzed the stimulating and suppressing factors that have helped to define the role of government intervention in changing air transportation system development and its impact on economic activity.

Bonser (2019) identified some of the research and development, and implementation organisations to include the Next Generation Air Transportation System (NextGen), Single European Sky (SESAR), Air Traffic Management Research (ATMR), Federal Aviation Administration (FAA) in the USA, Eurocontrol European Union, and Collaborative Actions for Renovation of Air Traffic Systems (CARATS) in Japan. It also comprises of the "Airports Council International (ACI)" and "International Air Transport Association (IATA)." Von Den (2006), Bonser (2019), and Ken (2019) situated all these organs to constitute international critical stakeholders that emphasize and develop safety, security, and infrastructural measures that work in tandem with the ICAO Annexes. They concluded that this association specifies the meeting point of global civil aviation development "in the technological-economic context of innovations development and implementation" (Bonser, 2019, p. 3).

The impact of transport and civil aviation policies has been identified by several studies. Yapicioglu et al. (2017) showed that the variables of innovative strategies in transportation infrastructure improvement have different roles and significant positive impact on safety, security, and sustainable economic development. Thus, Olariaga and Álvarez (2015) found how the air transport/airport industry in Colombia has been directly and positively affected by the implementation of public policies and other legislation. Saheed and Iluno (2015) examined the contribution of air transport to GDP in Nigeria. According to Kılıç et al. (2019), the suitability of civil aviation governance, authorities, and policy structures is dependent on a country's high social and environmental nature.

Consequently, Baker et al. (2015), Paul (2019), Mosbah and Ryerson (2016), and Tolcha et al. (2020) established the connectivity between airports, air services, and national socioeconomic development and justify the bases for the expansion and development of airports. This generated debates for aerotropolis phenomenon popularly known as airport city which is anchored on airport access and determination (Appold, 2015; Schaafsma, 2010; Woodburn, 2016). Almeida (2011) maintained the position that airport infrastructural facilities play an important role in the centre of the communities of their location together with other social and economic activities. This is the view of Woodburn (2016) which resulted in "Airport-centric land-use models, like the Airport Region, Airport City, Airport Corridor, and the area recognize that airports function as an instrument for globalisation, attracting certain types of economic activity and patterns of land use."

Accordingly, the historical architectural policy and construction of New York and Paris airports were informed by this conception (Mosbah & Ryerson, 2016; Roseau, 2012). This corroborates the study of Florida et al. (2015) that airports that house civil aviation are cited in densely populated and socio-economic busiest locations. They said it increases demand for air transport services. For example, Forsyth (2006) Almeida (2011), and Kuru (2019) examined that many tourists, investors, industrialists, and innovators now travel by air and the deregulation of

aviation activities has greatly enhanced the global tourism boom. They stress that it generally facilitates and provides the fastest and most dependable delivery of cargoes and services.

From the foregoing, Saheed and Iluno (2015) maintained that "a more cohesive transport policy that benefits all the sub-units in the transport sector should be pursued vigorously" so as to prevent the sector from witnessing the recent disastrous experience of Malaysia and Ethiopian air transport. Effectively, the civil aviation sector is a spectacular corporate industry in the world that requires constant restructuring, reform, and transformation process. Given this, Sanusi (2003) assumed restructuring as a fundamental re-thinking and radical redesigning of business and sectoral processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, and speed of prompt service delivery. This called for the reassessment of the Nigerian civil aviation framework in 2011 following the last review done in 2001. Again, the aviation sector is a globalised industry with frequent dynamics of challenges from safety and security, the efficiency of operation, enhancement of passenger experience, conformity with industry best practices, application of technology to competitive growth and development. For instance, Rodrigues and Cusick (2012) argued that the air transportation industry is extremely peculiar with technological advances, operational strategies, and mergers, consolidations, and bankruptcies rapidly changing the aviation landscape. Worthy of note is the fact that the adoption of technology in airports business results in a rapid growth process (Maghazei et al., 2021; Maghazei et al., 2022; Zhang & Graham, 2020). As Ihua-Maduenyi (2019) buttressed, the development of ICAO safety and security approaches has resulted in the evolution of a new vision and more accountable planning at the international, regional and member-state levels. As a result, Odua (2012) contended that the previous policy of 2001 became obsolete with current challenges that have bedeviled the sector and thereby calls for a review of the old policy in 2012. The major drivers of the Policy are the promotion of a harmonized approach to achieve international standards on safety and security of the passengers and economic growth of Nigeria as visualized in the former President Jonathan's Transformation Agenda (2011 – 2015).

Collins and Funatsu (2000) asserted that aviation is a global sector that is largely commercial, and which is preoccupied with serving over a billion passengers yearly, marketing and engineering design. Its safety development in transportation is equal to none. Furthermore, "the aviation industry also has extensive experience of operating rocket-powered piloted vehicles: during the 1950s several countries operated such vehicles sufficiently and frequently to develop routine operations, maintenance, and repair procedures" (Hall, 2012, p. 10).

Globally, the role of aviation has grown and as such, the cost of equipment and facilities, the complexity and technology, as well as its socio-economic impacts have become subject of public debate (De Quinn, 2000; Hagedoorn, 1993; Hobday, 1998; Maurino et al., 2017; Wensve, 2018). Accordingly, at the time of the global economic recession, the realisation of the benefits of aviation sectoral expansion through capital-intensive would highly depend on some critical factors. These identified dynamics are financial wherewithal, sound business models, the state of airport infrastructure, the operating environmental conduciveness in terms of policy and regulatory activities and the state of manpower in an industry that is technically oriented (Akpoghomeh, 1999; Buhr, 2012; Landover, 2009; Olowo, 2017). These heightened the need for the development of aviation policy and planning. In the FAA Report (1976) and Upham (2003), aviation planning and management have become the initial step for prudent decision-makers at all levels of the aviation community before embarking on a new enterprise, be it the purchase of new avionics or the building of new multimillion-dollar airport infrastructures.

Therefore, the National Civil Aviation Policy 2013 is a reform initiative that emerged to tackle the hydra-headed challenges facing civil aviation development in Nigeria. In other words, the birth of the policy is captured by the specificity of transformation as an attempt to rehabilitate the aviation sectoral dynamics to give it the required capacities to achieve its original objectives. This is based on the submission of Bojang (2008) who said, the air transport sector of the African economy is rich with industrious and committed people who encounter frustration due to personnel and other requirements. He adds that the necessity to identify the appropriate methodology for stimulating and promoting the growth of civil aviation cannot be neglected in Africa. The prominence is pivotal to the generation of expected traffic needed at most African airports to enable both airlines and airports to break even (see Figure 1).

Figure 1



The Global Propensity to Travel by Nations

Note. ATAG (2018; 2020).

From Figure 1 above, it is developing economies that possess the susceptibility to travel by air between 2017 and 2036 and this is not surprising. These countries are: Thailand (178%), Indonesia (188%), Lebanon (192%), China (224%) and India (269% increase). Available information reveals that the rate of growth in the south-south direction will increase at a higher level than the world average rate. However, "the last decade has seen substantially more traffic between China and Africa, for example. Besides, half of the top 20 countries projected for high passenger traffic are now developing or emerging economies" (ATAG, 2018, p. 26).

Methodology

The study adopted a case study research design because it "takes a more holistic approach to the single case like field, institution, person, and setting" Clarke (2019, p. 4). Moreover, "case studies tend to examine a real-life phenomenon, not to make statistical inferences concerning the wider population" (Taherdoost, 2016; Yin, 2015). As stated above, the cardinal goal of this study is to assess the value-addition of the NCAP 2013 to the development of airports sector of the Nigerian civil aviation vis-à-vis the economy. The fundamental purpose of the study is to examine the implementation of NCAP 2013 to the development of Nigerian airports sector. There was an interaction between the researcher, critical stakeholders and passengers alike to possess a comprehensive understanding of the effect of the transformation

through the implementation of the policy. This is therefore, the essential research objective that this research aims to achieve. This informed the method that has been explored.

The research further adopted a qualitative approach. The adoption of this design is consequent upon the submission of Nilsen et al. (2013) and Umar (2018) that studied on the impact of the implementation of a particular policy. "Studies in policy implementation research have used both qualitative and quantitative research methodologies, but there has been an emphasis on qualitative case studies" (Nilsen et al., 2013). The challenges of airport infrastructure and development was addressed by the initiation and implementation of NCAP 2013. This is because the airport's development needs to be understood and this could only be achieved through the qualitative approach. This research report is based on verifiable facts and observations (Creswell, 2003; Creswell & Creswell, 2017).

Data Presentation, Analysis and Discussion of Findings

Table 1

S/N		
	AVIATION INFRASTRUCTURAL	PROJECT SIGNIFICANCE
	DEVELOPMENT PROJECTS	
i.	Remodelling and reconstruction of all the	International airports have been certified
	terminal buildings of Nigerian airports to an	and categorized by ICAO and Airport
	excellent standard.	Council International (ACI).
ii.	Inauguration of a \$19 million Power and	This provided concessionary long-term
	Aviation Intervention Fund (PAIF) by the	credit to power and airport development
	Central Bank of Nigeria (CBN).	programmes.
iii.	Designation, renovation and accreditation of	The project has made FAAN Training
	FAAN Training Centre as Aviation Security	School as an African Aviation Security
	(AVSEC) ICAO Regional Training School of	Training Centre.
	Excellence.	_
iv.	Transformation of FAAN Aviation Health	The clinic is now qualified to admit
	Centre into state-of-the-art 24 hours general	patients and does consultancy services.
	outpatient clinic with modern laboratory service.	
v.	Inauguration of the Precision Approach Lighting	It strengthens the aircraft landing system
	System, Instrument Landing System Category II	and airport operational safety and
	and other critical landing equipment installed by	certification.
	NAMA to enhance operational capacity for	
	Benin Airport.	
vi.	Execution of 10 megawatts Independent Power	The project has put end to power outage
	Plant for Nnamdi Azikiwe International Airport	witnessed in the airport before the year,
	(NAIA), Abuja.	2013.

Aviation Infrastructural Development Projects

Note. FGN (2013); Ibrahim (2019); Agbagwu (2020); Field Survey (2021).

Table 1 above contains some of the tabulated projects of civil aviation infrastructural development undertaken through the implementation of NCAP 2013. Table 1 shows the remodelling and reconstruction of all the terminal buildings; provision of \$90 million Power and Aviation Intervention Fund (PAIF); accreditation of NCAT and FAAN Training Institute by ICAO; conversion of FAAN Aviation Health Centre into 24 hours general out-patient clinic;

launching of 30 passengers electronic information platform; provision of Precision Approach Lighting System, Instrument Landing System Category II, and quality weather forecast equipment for NAMA and NiMET, and acquisition of fire simulator.

Table 2Nigeria Airports Ratings and Categorization as At May 2023

S/No	Airports	States of Locatio n	Airfield Lightin g Categor y	Airport Current Rating –	Fire Tenders Cover
1	Murtala Muhammed International Airport, Lagos	Lagos	CAT II RW/18R/36L CAT I RW/18L/36R	5	9
2	Nnamdi Azikiwe International Airport, Abuja	Federal Capital Territory (FCT)	CAT II	5	9
3	Mallam Aminu Kano International Airport, Kano	Kano	CAT II 06 24 CAT I 05 23	5	9
4	Port Harcourt International Airport, Omagwa	Rivers	CAT I	5	8
5	Akanu Ibiam International Airport, Enugu	Enugu	CAT I	3	8
6	Kaduna Airport, Kaduna	Kaduna	CAT I	2	7
7	Calabar Airport, Calabar	Cross- Rivers	CAT I	2	7
8	Sam Mbakwe Airport, Owerri	Imo	_	2	6
9	Yakubu Gowon Airport, Plateau Jos		CAT I	2	6
10	Maiduguri Airport, Maiduguri	Borno	CAT I	3	8
11	Benin Airport, Benin	Edo	CAT I	2	6
12	Ibadan Airport, Ibadan	Оуо	CAT I	2	6
13	Ilorin Airport, Ilorin	Kwara	CAT I	2	7
14	Akure Airport, Akure	Ondo	—	2	6
15	Yola Airport, Yola	Adamawa	CAT I	2	6
16	Minna Airport, Minna	Niger	CAT I	2	6
17	Sultan Abubakar Airport, Sokoto	Sokoto	CATI	2	6
18	Makurdi Airport, Makurdi	Benue – 1		4	
19	Sir Abubakar TafawaBauchi–1Balewa Airport, Bauchi–1		1	_	
20	O Osubi Airport, Warri Delta CA		CAT 1	_	5

21	Zaria Airport, Zaria	Kaduna	-	1	5
22	Umar Musa Yar'adua Airport, Katsina	Katsina	CAT I	2	8

Note. FAAN Operations (2023); AFFRS (2023); FAAN R&D (2024).

Table 2 indicates the categorization of Nigerian airports. It shows that MMIA Lagos is classified in CAT I and II with RW/18R/36L, NAIA Abuja CAT II, and MAKIA Kano are in CAT II 06/24 CAT I 05/23. The table shows that PHIA Omagwa is still on CAT I with other Nigerian airports. However, Table 2 points to Akure Airport, Makurdi Airport, Sir Abubakar Tafawa Balewa Airport, Bauchi, and Zaria Airport yet to be categorised.

Figure 2

Port Harcourt International Airport, Omagwa Before, 2013



Note. FMA (2020).

Figure 2 shows the sorry state of PHIA, Omagwa in 2012, before the aggressive implementation of NCAP, 2013. The figure is the dilapidated departure and arrival halls of the international airport that are made up of canopies. This situation classified the airport as the worst international airport of 2014' in Africa in particular and the world at large by relevant aviation ranking bodies like InAirports.net, Aviationworld Today, etc.

Figure 3

The Terminal Building after the 2013 Remodelling Exercise



Note. Field Survey (2021).

Figure 3 represents the remodeled PHIA Omagwa which commenced immediately after the NCAP, 2013 was initiated. The project started in February 2014 by China Civil Engineering and Construction Company (CCECC) following the \$500 million loan and counterpart funding by the Federal Government of Nigeria through the FAAN.

Figure 4

Murtala Muhammed International Airport, Lagos



Note. Field Survey (2021).

Figure 4 is the modernized MMIA Lagos, the most viable airport in Nigeria. The MMIA Lagos with 1km apart terminal buildings in the figure is located in Ikeja and serves Lagos and all South Western States of Nigerian before the creation of Ibadan, Akure, and Ilorin airports. It is the second airport to be established in Nigeria after MAKIA Kano, and immortalized after the late Head of State, Gen. Murtala Ramat Muhammed by Chief Olusegun Aremu Obasanjo in March 1976. MMIA Lagos in the figure contains three terminals (the International, local and Presidential Wing) like NAIA, Abuja. This occurred due to the fact that Lagos was the former FCT and presently the economic nerve center of Nigeria.

Figure 5



Nnamdi Azikiwe International Airport, Abuja Before and After NCAP, 2013

Note. Field Survey (2021).

Figure 5 pictured the renovated NAIA, Abuja. The airport was established following the relocation of FCT from Lagos in 1992 to Abuja by Ibrahim Badamasi Babaginda's military regime. It is the most important international airport in Nigeria because of the role it plays in international relations and diplomacy being the air gateway into the Federal Capital Territory of Nigeria, Abuja. The airport in Figure 5 is sited 40km away from the Abuja city center. Figure 5 shows that the airport is made up of three terminals (the International, local and Presidential Wing) because of its peculiarity as a "Protocol Airport" in the Nigerian civil aviation sector.

Figure 6

Mallam Aminu Kano International Airport, Kano Before and After NCAP 2013



Note. Field Survey (2021).

Figure 6 illustrates the MAKIA Kano, in the northern part of Nigeria. The airport in figure 6 is the oldest airport in Nigeria. The significance of MAKIA Kano to civil aviation is hinged on the fact that it was initially a polo field before an aircraft took off from there using rail line as a navigational aid to Ikeja, Lagos, in July 1925. MAKIA used to be the second busiest airport in Nigeria after MMIA, Lagos before the emergence of NAIA, Abuja in the 1990s.

Figure 7

Akanu Ibiam International Airport, Enugu Before and After NCAP 2013



Note. Field Survey (2021).

Figure 7 reveals the pre and post 2013 AIIA, Enugu in South Eastern-central Nigeria. The airport which was renamed Akanu Ibiam Airport by the Chief Olusegun Obasanjo administration

was built by the colonial administration with the establishment of three aerodromes in Enugu, Calabar, and Port Harcourt for administrative facilitation. The airport in figure 7 began as a colonial aerodrome before it was inaugurated as an airport on 22nd October 1976 by the late Gen. Shehu Musa Yar'Adua (rtd), the then Chief of General Staff and was upgraded to international status by President Goodluck Ebele Jonathan's administration with Senator Stella Adaeze Odua as Minister of Aviation in 2013. AIIA Enugu is an airport that previously served Enugu and nearby cities like Nsukka, Afikpo, Awka, Abakaliki, Onitsha, Nnewi, Okigwe, Ugep, Orlu, Idah, Anyigba, Anyigba, Otukpo, and Ogoja before the establishment of Sam Mbakwe International Airport (SMIA) Owerri, and Asaba Airport respectively. The airport is named after an Afikpo, Ebonyi State-born medical doctor and elder statesman, the late Pa Akanu Ibiam (1906–1995).

Figure 8

Sam Mbakwe Airport, Owerri Before and After NCAP 2013



Note. Field Survey (2021).

Figure 8 exemplifies the Sam Mbakwe International Cargo Airport Owerri, located in Ngor Okpala Local Government Area of Imo State, South-eastern, Nigeria. The figure shows the earlier structure of the terminal building before remodelling started in 2013. The airport in figure 8 presently serves Owerri, Oguta, Onitsha, Nnewi, Arochukwu, Aba, Umuahia, Arochukwu,

Okigwe, and Orlu. SMIA Owerri also assists the economic activities of Calabar and Akwa Ibom State in the South-South, Nigeria.

Figures 2 – 8 are pictures of the remodeled international airports following the NCAP, 2013 which encapsulates the conceptualization of the projects. They were the products of President Goodluck Ebele Jonathan and some members of the Federal Executive Council's economic and infrastructural development diplomatic tour to China in 2013. The trip provided an opportunity to seek a single digit loan interest rate, with a large dose of a moratorium for civil aviation infrastructural development projects. The five new international airport terminals in Lagos, Port Harcourt, Abuja, Kano, Enugu, and Owerri showed in figures 1 - 8 are also verifiable and veritable aviation developmental giant-strides of a \$500 million loan with the approval of the Chinese government, the China Exim Bank and Nigeria counterpart funding of \$100 million.

Figure 9

New MMIA Power Plant



Note. Field Survey (2021).

Figure 9 is the outcome of the Airport Power Project, in the NCAP, 2013. It is in response to constant power outage in all the airports and this constituted a considerable hazard to flight and terminal operations.

Summary of Findings

- There is policy, programme and project continuity in the civil aviation industry; a very rare Nigerian situation in particular and developing economies at large. In other words, there is no single project of President Jonathan's administration (2011 2015) in the aviation sector that was suspended by the Buhari's government (2015 2023).
- Remodelling and reconstruction of terminal buildings to a world-class standard was achieved.
- The provision of infrastructures have positively resulted in international airports categorization/certification by ICAO and other relevant aviation regulatory bodies at both local, regional and international levels (see Table 2).
- The three above has attracted foreign investors like the China Exim Bank who has entered in Bilateral Service Agreement (BASA) with the FAAN to build and transfer the new terminal buildings in the five designated international airports – NAIA, Abuja; AIIA, Enugu; MAKIA, Kano; MMIA, Lagos and PHIA, Omagwa-Port Harcourt to the Authority.
- The policy has led to the creation of Aerotropolis for the connection of airport cities to boost the economy particularly in Lagos, Abuja, and Kano.
- There is provision of Avio-bridges and boarded passengers conveyor buses within the tarmac and from the arrival hall to the car park at the MMIA, Lagos, and NAIA, Abuja.
- The MMIA since 2014 has not experienced power outage due to the provision of an excellent power plant.

Discussion

The research reveals that the implementation of NCAP 2013 has created the availability of massive infrastructure in airports in Nigeria as pointed out in Table 1 above. This confirms **Part VI** of the policy that is targeted at the "development of modern airports and infrastructure, the creation of airport cities (Aerotropolis) with multi-modal access and aviation-linked commercial infrastructure using a private sector-driven approach." The emergence of NCAP 2013 brought efficient and effective progress to the sector through the remodelling and reconstruction of terminal buildings to a classical standard.

Thus, the positive impact of the implementation of the NCAP 2013 gave birth to the National Aviation Masterplan and Airports Remodelling Project (ARP) which continued apace with the massive construction project of the international and cargo terminals adjudged as the biggest of its kind in the Nigerian aviation industry since independence in 1960 and one that is widely acknowledged. The efforts are hinged on a roadmap developed by the then Minister of Aviation Stella Adaeze Oduah which fed directly into the Airports Development Programme of President Goodluck Ebele Jonathan (2011 - 2015) with the determination to ensure that the aviation sector undergoes a programme of change and development to put it on a par with the best in the world. The programmes as encapsulated in NCAP 2013 "provided the institutional framework for the provision of infrastructure, monitoring, and control of the industry."

This followed part of a larger package of the bilateral agreement between the Republic of China (Exim Bank) and the Government of Nigeria in 2013 which involved the loan of \$106 billion (\$678m) to provide funding for the new airport terminals construction with a lifespan of 24 months. It is observed that the projects are being implemented with a concessionary loan of over 22 years at an interest rate of 2% with a 5-year moratorium. It also includes six cargo

terminals across the country to enable the easy movement of perishable goods that is vital for the agro-economic sectoral development as well as for the aviation industry.

Accordingly, MMIA Lagos, NAIA Abuja, PHIA, Omagwa, MAKIA Kano, and AIIA Enugu benefited from the building of the new and excellent international terminals. Following their completion, the terminal buildings at NAIA Abuja and PHIA, Omagwa has started providing world-class services and best practices to both local and foreign customers with the available infrastructures. In particular, the MMIA Lagos, PHIA, Omagwa, Rivers State, and NAIA, Abuja the FCT had lately been completed, inaugurated and being put in use.

We have also observed that the new passenger terminal buildings incorporated modern facilities such as those at Chicago O'Hare and Terminal 5 at London Heathrow thereby making Nigerian airports a second home for relaxation and a conducive travelling environment.

The impactful First Phase of the implementation of the NCAP 2013 manifested in the complete overhauling, remodelling, and reconstruction of eleven airport terminals to improve effective services and passenger experience. These terminals are in Abuja, Benin, Calabar, Enugu, Jos, Kaduna, Kano, Lagos, Owerri, Port Harcourt, and Yola respectively. For example, the Murtala Muhammed Airport Lagos new General Aviation Terminal (Local Wing) was commissioned in October 2014. This increased faster and easier passenger facilitation and cargo processing. The old terminal building, which was re-designed and refurbished in the late 1990s was demolished in November 2011. A year later, the new terminal was reconstructed on a total land area of 4,000 square meters (43,000 square feet), with a maximum passenger capacity of about 1,500 at ultimate periods. There was expansion of the departure and arrival lounges to 830 and 980 sq. metres (8,900 and 10,500 sq. feet), while the check-in area occupies about 1,550 sq. metres (17,000 sq. feet).

The Second Phase encompasses the remodelling work in the following airports.

- Maiduguri Airport,
- Umar Musa Yar'Adua Airport, Katsina,
- Sultan Abubakar Saad III Airport, Sokoto,
- Akure, Airport,
- Ibadan, Airport,
- Sir Abubakar Tafawa Balewa Airport, Bauchi,
- Ilorin, Airport, and
- Jalingo, Airport.

In the summed words of Yakubu (2021)

The renovated Hajj terminals at Kano, Kaduna, Abuja, and Sokoto were well received by pilgrims travelling to Saudi Arabia. Facilities have been mordernised with modern bathrooms, wudu area, and easily accessible and well-ventilated masjids. The remodelling of the terminals is very significant, as it marks a departure from the previous ad hoc [*unsustainable*] arrangements. It is further testimony to the authorities' determination to enhance and safeguard the welfare of the pilgrims, by eliminating undue hardships and difficulties experienced when Nigerians perform their religious obligations.

In addition, the taxiway and runway resurfacing has been completed at the Margret Ekpo Airport Calabar, Maiduguri, Sokoto, and Ibadan airports. This has improved aircraft take-off and landing capabilities. NAIA Abuja has gained second runway in 2018 following the implementation of the ARP embedded in the NCAP 2013. From the analysis above, all the airports' development efforts have redoubled the traffic and passenger numbers.

Top Down Theory and the Implementation of Airports Development Project

Policy implementation study became an important research area in the 1970s when concern for effectiveness and efficiency of public policy assumed a subject of debate following the work of classical top-downers like Pressman and Wildavsky (1973), titled "Implementation." Accordingly, this study is anchored on "Top-Down Theory of implementation" to assess the level of execution of National Civil Aviation Policy 2013, and the development of airports in Nigeria. The foundation and adoption of the theory is on its historical old age which predates the "Bottom-up Model." The advocates of the theory after Pressman and Wildavsky (1973) are not far-fetched. Prominent among them are classical top-down scholars like Van Meter and Van Horn (1975), Bardach (1977); Nakamura and Smallwood (1980); Mazmanian and Sabatier (1983); Sabatier (1986); Macdonald (1995); Matland (1995); Larrison (1999); Pülzl and Treib (2007), and Birkland (2007). They characterized public policy formulation and implementation processes as 'black box' model and system analysis, bureaucratization and centrality, professionalism and leadership analyses, large-scale infrastructural development interventions-centered, and correlation between policy decisions and outcomes.

Farazman (2002) claimed that the top-down model is fundamental in the explanation and advancing the remote reasons for reforms and restructuring by modern governments. It also presents conceptualization of the framework for organizational investigation "of modern governance and public administration." Following the above development, Paudel (2009) authoritative decision and centrally positioned stakeholders like political office holders, upper-level public servants, and their subordinates remain the starting point and critical factors in policy implementation. The theory emphasises the hierarchy in the policy execution process. Sabatier and Mazmanian (1979) and Sabatier (1986) affirm that, the top-down theory is grounded on the following six beliefs. These are:

- i. Clarity and consistency in policy objectives and goals.
- ii. The causal theoretical validity of the intended programme is made known.
- iii. The adequate structure of the implementation process is emphasised.
- iv. There is a priority in the commitment to the achievement of policy goals by the implementers.
- v. Political and interest groups' support and sovereignty are enshrined.
- vi. There is an absence of detrimental effects on socio-economic structural situations on the programmes.

Figure 1 below skeletally discusses the above-itemized variables of top-down model of policy process from conception to implementation.

Figure 10

The Implementation Process flow of Variables



Note. Sabatier and Mazmanian (1980).

Figure 10 above illustrates the distinction and inter-relationship that exist between policy implementation major variables. These are tractability of problem, the ability of statute to structure implementation and non-statutory variables affecting the manifestation of policy intended goals. From the figure, all these variables dictate the stages of dependent variables of policy outputs. Subsequently, Nilsen et al. (2013, p. 4) stated:

Policy implementation research, meanwhile, distinguishes between two types of dependent variables: output is the impact on the implementers (*i.e.*, frontline staff and/or organizations involved in the implementation process) and outcome is the impact on the targets in society (*i.e.*, citizens and organizations). Outputs are generally administrative decisions

These variables situate the connection involving policy input and output. The model is according to the globalized, highly restricted and centrally regulated peculiarities associated with the civil aviation sector in the world. The government is the sole initiator of aviation regulatory and operational frameworks through ICAO and the Member States Civil Aviation Authorities (CAAs). "The Marshall Plan, the Monroe Doctrine, and the Stalin styled export of Soviet industrialism and communism, and National Development and Rolling Plans in Nigeria are all examples of significant policies that adopted the approach" (Paul & Ofuebe, 2019).

Application of the Theory to the Study

The top-down approach largely concentrates on the understanding of the attainment of the degree of impact the implementation of the policy has made considering the goals (Winter, 2006). Palumbo and Calista (1990), in Paudel (2009) believed in policy purpose specification and definite implementation mechanisms. This perception is 'policy-centered' with the

policymaker's views, application of command over the implementers and coincidence of implementers and the beneficiaries' actions in achieving the policy goals (Paudel, 2009; Sabatier & Mazmanian, 1979). According to Mohammed (2007), in the Top-down theory, the broad strategic thrusts, targets, and instruments of development projects come from the highest echelon of policymakers and the various institutions of the government. Top-down development model and marketplace underlying forces are justification for part of societal transformation; network dynamics and reflexive behaviour are responsible for others (Loorbach, 2010). The application of "Top-Down theory" of policy implementation in this study is an attempt to consider the impact of NCAP on the development of airports infrastructure in Nigeria.

In addition, the Top-down theory demonstrated a well-built research interest to develop overall policy recommendation, prescriptive orientation, clarity, and consistency, reducing "the number of actors, limit the extent of change necessary and place implementation responsibility with an agency sympathetic with the policy's goals" (Nilsen et al., 2013; Paul and Ogwu, 2013). Hence, the remarkable responsibilities and collaboration of Nigerian aviation agencies like the "Federal Airports Authority of Nigeria (FAAN), Nigerian Civil of Aviation Authority (NCAA), Nigerian Airspace Management Agency (NAMA), Nigerian College Aviation Technology (NCAT), Nigerian Safety Investigation Bureau (NSIB), and Nigerian Meteorological Agency (NiMET)" played significant roles in the implementation of NCAP. Therefore, apart from Information and Communication Technology (ICT), the airports remained unchallenged pivotal driver of globalisation in that it cross-nationally enhances the rapid growth of businesses, as well as conserving time and energy wastage in travelling. However, Hasan (2008, p. 1) argued that it "is not a normal industry, but rather a highly politicized industry that involves issues such as the sovereignty of individual nations, national security, and diplomacy." Table 3 reveals the meeting-point of Top-down and NCAP implementation standpoints.

Table 3

S/N	Variables	Top-Down	NCAP
1.	Policy decision	Policy makers	Federal Executive Council (FEC) & National
			Assembly (NASS)
2.	Starting point	Statutory language	Technical planning
3.	Structure	Formal	Bureaucratic
4.	Process	Pure administrative network	BASA
5.	Output/Outcomes	Prescriptive	Strict implementation
6.	Discretion	High level bureaucrats	FMA/Parastatals

Convergence between Top-down and NCAP 2013 Implementation Viewpoint

Note. Paudel (2009); Paul & Ofuebe (2019) and revised by the Researcher.

Thus, the top-down model on the implementation of public policy has assumed prominence in social sciences research adaptation since the rational sequential model of the implementation process emerged. The NCAP "implementation, therefore, implied the establishment of adequate bureaucratic procedures which ensured that policies are executed as accurately as possible [through] the implementing agencies like FAAN, NCAA, NAMA, NCAT, NSIB, and NiMET should have sufficient resources at their disposal, and there needs to be a system of clear responsibilities and hierarchical control to supervise the implementation actions" (Paul & Ofuebe, 2019, p. 8).

Further to the above, the adoption of this model is fundamental sequel to the preidentified difficulties like unconstructive criticisms and bureaucratic bottle-neck that will be experienced in the implementation process of NCAP if it has to follow through the critical stakeholders and non-stakeholders' "clearance points" (Pressman & Wildavsky 1973). Thus, airports compulsory development and transformation requires the ingenuity of the political leadership in the absence of which no reform can materialize.

The top-down emphasis on clarity, rule promulgation and monitoring bring to mind the implementation of ICAO revered Annexes in relationship to Weber's bureaucracy that emphasises making of independent decisions based on merit and technical criteria, free from political influence (ICAO, 2020; Matland, 1995). On a final note, the improvement and reorganisation of airports industry, which is the target of NCAP, therefore, deals with "the provision of key structural arrangements to facilitate administrative [government] engagement in development programmes" (Sabatier & Mazmanian, 1980, p. 33).

Theoretical and Empirical Significance of the Study

This study has contributed to the existing knowledge in development and Airports Policy making and implementation studies through the findings and recommendations. It identified and encouraged government and the major stakeholders' intervention on critical projects and investments drive through the implementation of NCAP 2013 considering the current contributions of the sector to the development of tourism and national revenue drive of countries like Canada, France, Singapore, UAE, Ethiopia, Kenya, South Africa, Egypt, etc. This is more realistic due to the current economic situation of Nigeria from a global context.

Empirically, this adoption of the recommendation of this study will lead to the enhancement of the development of airports in Nigeria. Moreover, the commitment of the Federal Ministry of Aviation to ensuring development in the sector adds an essential element to the study of how the industry has fared. Although there were considerable challenges predating NCAP 2013, it is only fair to assess the improvements by the concerted efforts that have made to turn the situation round. This is hinged on the fact that Nigeria cannot achieve the UN 2030 Agenda– 17 SDGs "(Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development)" without airports development. This is based on the critical roles it plays that deals with international relations and treaties that cannot be achieved in the absence of air transportation.

Conclusion and Recommendations

The data gathered shows that the implementation of NCAP 2013 has positively impacted the infrastructural development of the airports sector in Nigeria. Consequently, has provided an answer to research questions which posit that: "to what extent does the implementation of NCAP 2013 positively impact the development of the airport sector in Nigeria?" The Federal Ministry of Aviation has aired the ingredients of the NCAP 2013 that contains the Aviation Master plan in an international environment. The Aviation Road-show to China, the United States, and Canada focused on the need to tackle the huge infrastructural deficit in the sector by attracting FDI in the development of facilities and infrastructure that meet international standards and best practices.

The overall implementation target of NCAP 2013 is to have excellent airports in Nigeria that will strengthen the aviation sector to making it self-sustaining and contributor to socioeconomic growth. To achieve this, the policy has transformed the airports into efficient, profitable, self-sustaining businesses that provides safe, secure and comfortable air transport as the preferred mode of transportation for all. Consequently, upon the findings of the paper, we recommend:

i. The establishment of Nigerian Airports Infrastructural Maintenance Standing Committee whose membership should be drawn from all the aviation organisations. This committee

should be primarily charged with the responsibility of periodic turnaround maintenance of all the facilities that have been provided. We say this for facility sustainability, expertise reasons and to avoid further waste for the government.

ii. That MMIA Lagos, NAIA Abuja, PHIA, Omagwa, MAKIA Kano, and AIIA Enugu should be given uttermost development priority. These international airports are the gateways into the country and 'the breadwinners' of all civil aviation agencies in Nigeria. We canvassed that their development should not be sacrificed on the platform of development politics as usual.

Contributions to Knowledge

- i. The study affirmed that the formulation and implementation of NCAP 2013 berthed a significant reformation of the infrastructures necessary for the sector to become competitive in relative and absolute terms. This is even more so when compared to previous policy efforts based on their inability to develop and standardized Nigeria airports' well-being.
- ii. The study reestablished confidence in public policy formulation, implementation, continuity, and outcome for promoting sustainable political, social and economic development against the growing consensus of policy suspension, prebendalism and primordial considerations, and summersault which are regular features in Nigeria's policy and project environments.

Suggestion for Further Studies

- i. The budgetary allocation and financial analysis of the implementation of NCAP 2013 is a worthwhile research endeavour.
- ii. The aviation industry has dramatically changed after the COVID-19 pandemic. Therefore, this is a very important area that has hugely impacted both the culture and practice of airport services. To this end, it is a very important area of research that can answer several "how", "what", "when" and "why" questions.

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