

# An Evaluation of the Failure Pattern of Defunct Airlines in Nigeria

Akin Babatunde Adeoye<sup>1</sup> and Abdulrahman Musa<sup>2</sup>

<sup>1</sup>Department of Management Technology, Bells University of Technology, Ota, Nigeria.

<sup>2</sup>Federal Airport Authority of Nigeria (FAAN).

E-mail: [afolabiseyo@yahoo.com](mailto:afolabiseyo@yahoo.com)

## ABSTRACT

This study evaluates the failure pattern of defunct airlines in the Nigerian Aviation Industry. An investigative approach was deployed in order to aggregate defunct airlines in Nigeria from 1980 to 2012. Descriptive survey design was used to obtain information from aviation workers and experts. In the process of developing a hypothesis, 184 questionnaires were distributed while 170 were returned and the data compiled for analysis to test for postulated hypothesis. Chi-test were deployed to test for reliability and to ensure data does not lack internal consistency, pareto, and fishbone analytical tools were equally deployed. Pareto analysis adopted reveals that finance is the major cause of defunct airlines in the research period and fishbone further shows the root cause of other dependent causes of failure. In summary, the result of the hypothesis shows that finance is a major factor affecting airline operation in Nigeria coupled with other factors such as government policy, organizational structure and ownership problems which are inter-related.

(Keywords: airlines, operations, defunct, transport, aviation)

## INTRODUCTION

The transportation challenges often faced in many cities of the world have attracted the influx of transportation network planners to decipher a proactive measure in order to mitigate these adverse effects by providing viable lasting solution (Sumaila, 2004). Mobility and accessibility provided by the transport system have been playing a major role in shaping countries, influencing the location of social and economic activity, the form and size of cities, and the style and pace of life by facilitating trade, permitting access to people and resources, and enabling greater economies of scale, worldwide and throughout history (Badejo, 2014).

The movement of cargos and finished products from a peculiar location to another by human effort is a focal point to maintain strong economic and political ties between regions in the same state. With a country like Nigeria having land area of 910,768 km<sup>2</sup>, a climbing population estimated at about 200 million people, and GDP-growth rate of 8% per annum, the centrality of effective public transportation in Nigeria is readily seen.

Nigeria's transportation infrastructure is in a dismal state and falls short of the countries it would like to be compared with (Igwe et al., 2013). Stephens (2014) forecasted that the Nigerian Civil Aviation industry will keep growing at an average of 15% domestic traffic so that by 2019 an estimated 12,461,043 passengers will be carried domestically. An industry with this growth rate should be of great interest. Moreover, it is expected to be a crucial industry in general economic growth promotion for any nation.

Air transport plays an important role in Nigeria where the industrial and commercial centers are located far apart and terrain and climatic conditions are quite different from one part of the country to the other (Akpoghomeh, 1999).

The problems facing air transportation in Nigeria have economic and managerial implications which include; first, the decaying facilities at the nation's airports gives Nigeria a bad image and thus investors from abroad are unwilling and hesitant to come and invest in the country. Also, with loose security these same investors will fear coming into the country for fear of being attacked by armed robbers or militants. Thus, Nigeria loses a lot of foreign investments which have negative implications on the economy.

Secondly, the dwindling confidence of passengers on domestic airlines leads to limited business travels by air and thus a lot of time is wasted when other means of transportation are

used and in business time is money. Also, with intermittent plane crashes, passengers will fear to travel by air and thus resort to using road transport which has high rate of accident leading to further loss of lives and properties.

Thirdly, the sudden and long closure of airports especially international ones is a big economic loss in terms of revenues to be collected by FAAN and losses by local businesses at the airports. The suspension of direct flights by foreign airlines is another economic loss.

Fourthly, the problems of air transport portray Nigerians as bad managers who cannot sustainably and profitably manage public corporations and thus had to join hands with foreigners.

Fifthly, the problem of bad management creates persistent crisis in the Nigerian civil aviation industry which have a negative effect on the economy (Faajir and Zidan, 2016).

It is well understood by the international aviation community that the benefits enabled by air transport can only be materialized if States have a safe, efficient, secure, economically viable and environmentally sound air transport system. The sustainable development of the air transport system is dependent on aircraft financing, airport development, and infrastructure financing, hence airline operation become a burden for operators.

International Air Transport plays an important role in the economic development of any nation but even more in the case of small and emerging economies. It contributes to employment and foreign exchange income by transporting business passengers, tourists, and cargo to and from regions of the world that would otherwise be inaccessible or not easily or quickly accessible. In many islands with tourism-based economies, air travel helps the island to compete at long range with other destinations that are much closer to the sources of tourists. Similarly, cargo transport by air now allows these small economies to compete in markets, such as fish, flowers, fruits, or other equally valuable perishables items. Air transport becomes thus an essential part of the infrastructure required for economic development. A healthy transportation system offering reasonable prices and ubiquitous service to the public is vitally important to the health of the small emerging economy it serves (Button, 2006).

Any such economy with a safe and reliable airline service gets an edge over its competitors in the world market. Aircraft becomes an important economic tool and, ideally, a fleet at its disposition puts it in an advantageous position. New demand creates the need for more aircraft which needs to be acquired and financed. The interesting part of a study on aircraft financing is that it is of an interdisciplinary nature which requires one to understand the overall industry.

Law is important, but one has to get an understanding of the different aspects of management including international finance, economics, marketing, strategy, and so on. Airline finance for most of the growing economics like Nigeria has a similar challenge based on study and literatures reviews and this has greatly contributed to the number of defunct airlines in Nigeria today due to shortage of funds, while the roles commercial banks are playing in the aviation industry has not made huge impact in sustaining airline operators in Nigeria.

It has been generally observed by aviation experts that the interest rates given to the airliners in Nigeria for aircraft acquisition and capitals to run their business is far too high and unrealistic, hence it becomes imperative for the commercial banks to reduce their interest rate and give airlines more time to pay up their loans due to low return on investments (ROI) mostly caused by the unstable economy and dwindling oil prices at the international market. (Guardian Newspaper, 2014).

## RESEARCH METHODOLOGY

The data collected were sorted, processed, and analyzed by using descriptive and inferential statistics. The analysis was in accordance with research hypotheses. The descriptive analysis defined the properties of the data to show the variations in responses and opinions using frequencies, percentage denotations as well as other descriptive tools. Data collected for the study was analyzed using appropriate descriptive and inferential statistics such as Chi-square and Analysis of Variance to test hypotheses and was done using Statistical Package for Social Sciences (SPSS).

## RESULTS AND DATA ANALYSIS

It contains details of the analysis and presentation of the data based on the specific objectives and research questions of the study. A total of one hundred and eighty-four (184) questionnaires were given out, of which one hundred and seventy (170) copies of the questionnaires were returned which was used to obtain information on the failure pattern of defunct airlines in Nigeria.

To enrich further the information collected for the study, observations were used largely in the various sections of FAAN, NAMA, NCAA, NIMET, AIB and NCAT as a means of generating independent information on management and administration processes, as well as corroborating

the data obtained from other sources in order to access defunct airlines in Nigeria and why they failed.

The items of measurement were rated on a 5-point Likert type scale which ranks responses on a scale of (1) strongly agree to (5) strongly disagree. The Ranking of the Likert scale for each item is given as we have it below:

- Strongly Agree SA = 1,
- Agree A= 2,
- Undecided UD = 3,
- Disagree SD = 4,
- Strongly Disagree SA = 5

## SUMMARY OF RESPONDENTS RESPONSES

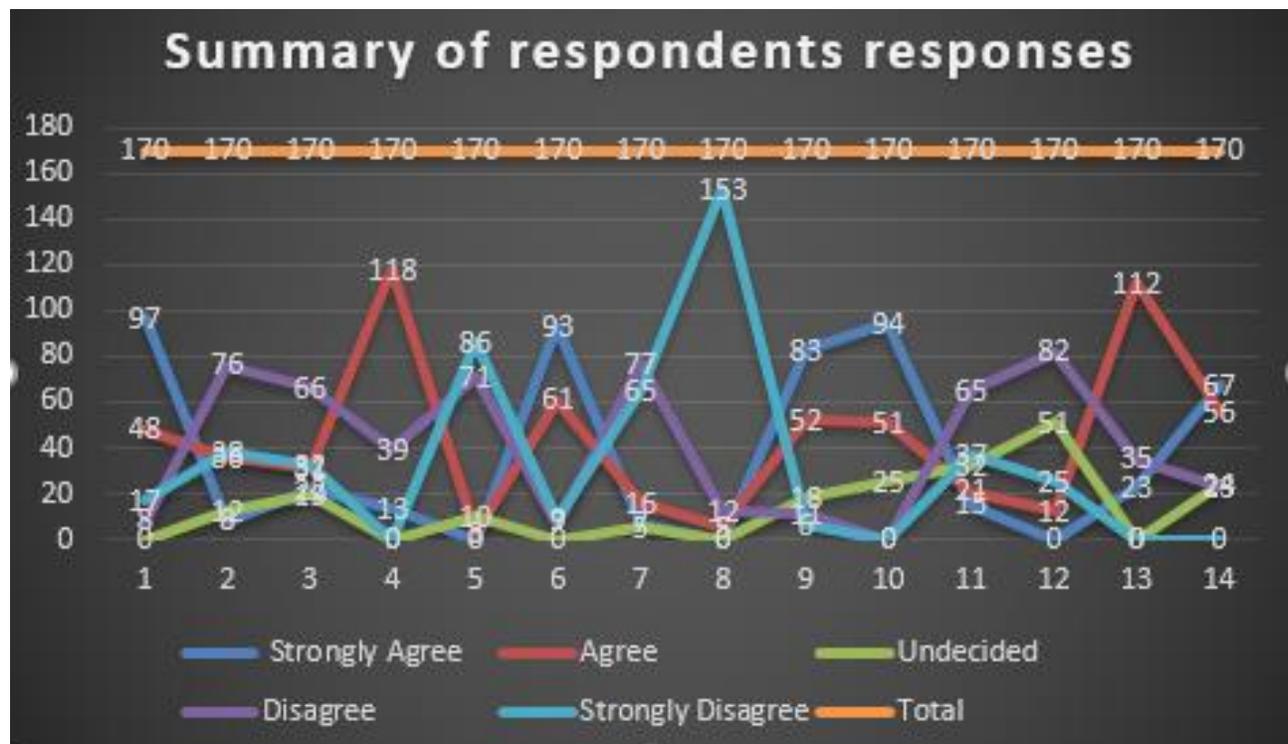
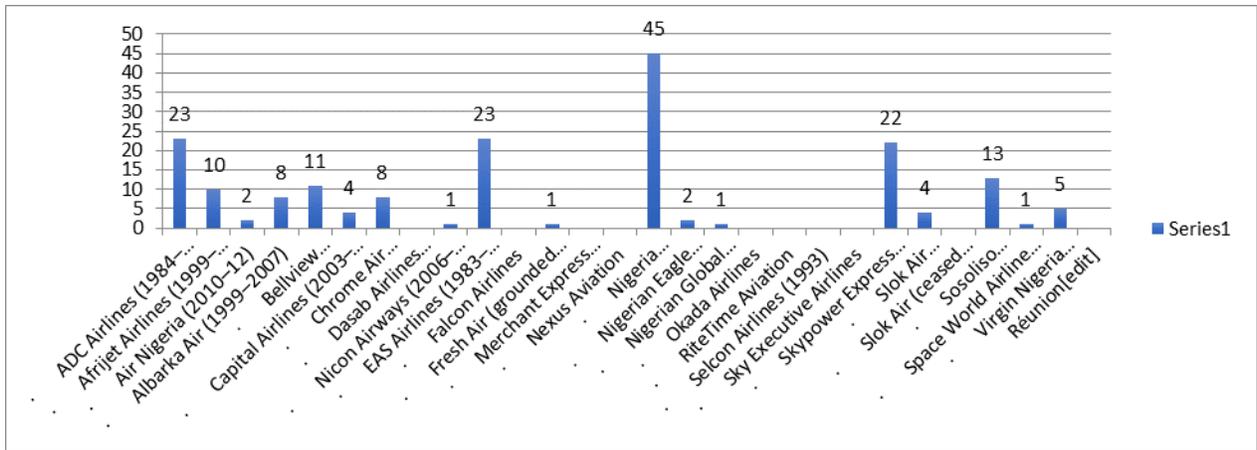


Figure 1: Showing the Interrelating Components that Constitute the Questionnaires Generated.

## DEFUNCT AIRLINE LIFESPAN

The concept of defunct airlines was first analyzed so as to understand their failure patterns. The image shown below shows how long these airlines operated in Nigeria before they went under.



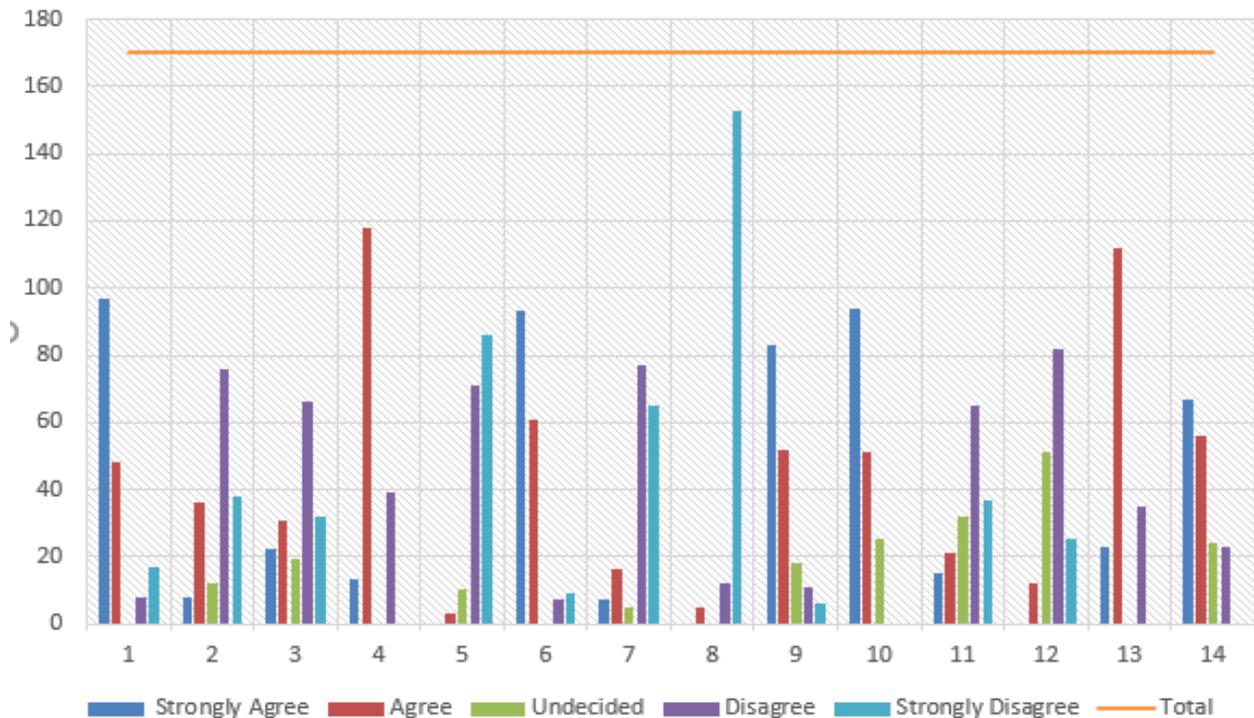
**Figure 2: Life Span of Defunct Airlines.**

The result of the figure 2 above clearly depicts that Nigeria airways has the highest number of operating years in Nigeria airspace followed by EAS and ADC airlines while space world and NICON Airways only operated for a year in Nigeria before they went under.

### CHI-TEST

Questionnaires were administered to know the root cause and to understand the failure trend which exist among these defunct airlines. The summary of the data generated is as shown below:

### Summary of respondents responses



**Figure 3: Showing Summary of Respondent's Assertions based on the 14-Questions Generated.**

The result of the chi-test and hypothesis carried out on the garnered data gave the following conclusions:

1. The high cost of aviation fuel is not a major reason why most airline operators are out of business in Nigeria.
2. The high exchange rate over the years has grossly been responsible for most airline failures and as a result, they are out of business.
3. The hypothesis clearly revealed that lack of proper planning by airline operators is not a major reason why we have over 45 defunct airlines in Nigeria since independence.
4. Multiple taxation by the regulatory bodies in the aviation industry is grossly responsible for the ever-increasing number of defunct airlines in Nigeria.

As an effort to ascertain the aggregate contributory factors that has led to the failure of

airlines in Nigeria, it can be inferred that the result of the stated hypothesis above has clearly shown that certain factors such as foreign exchange rate and multiple taxation are the major contributory factors to airlines failures in Nigeria.

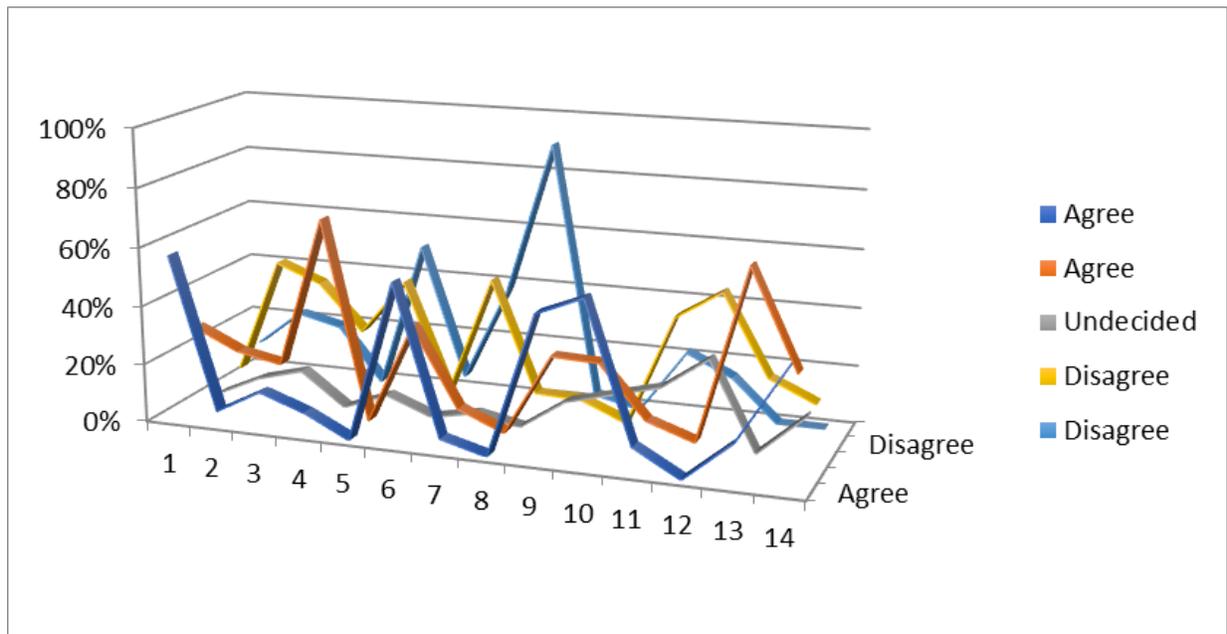
Domestic airlines, on the average, pay about 35 per cent to 40 per cent of a ticket cost as taxes and charges that come under the guise of statutory levies in addition to other charges. These include 5 per cent Ticket Sales Charge, 5 per cent Cargo Sales Charge, 5 per cent Value Added Tax (VAT), Passenger Service Charge, Charter Sales Charge, Aircraft Inspection Fees, Simulator Inspection Fees, Landing Charges and Parking Charges. Others are Terminal Navigational Charge, En-route Charge, Fuel Surcharge, Airport Space Rent, Electricity Charges, and Apron Pass, Ramp Access Charges, ODC and a newly imposed Registration Fee all of which are paid to government agencies. The taxes were imposed on these airlines without adequate subsidy on exchange rate for airlines operator.

**Table 1: Responses from Respondents.**

	Reasons	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
1	The most important attribute to be possessed by every employee is creativity and discipline	97	48	0	8	17	170
2	The Nigeria government policy on airliners has enabled airlines to make huge profit	8	36	12	76	38	170
3	Nigeria airliners has excellent safety record	22	31	19	66	32	170
4	Air crashes is the major reason why some airlines are out of business	13	118	0	39	0	170
5	High cost of aviation kerosene/Gas is NOT one of the major reason some airlines go bankrupt	0	3	10	71	86	170
6	High foreign exchange rate greatly influence airline operation in Nigeria	93	61	0	7	9	170
7	Lack of proper planning by airline operators is chiefly responsible for their operational failure	7	16	5	77	65	170
8	Multiple taxation by FAAN, NIMET, NCAA, AIB & NAMA is NOT a major factor that make some airline to go out of business	0	5	0	12	153	170
9	Many airports do not have runway light, navigational system, therefore most airlines operate 7am – 6pm	83	52	18	11	6	170
10	Aircraft that fly Nigeria's airspace must have a specified age limit	94	51	25	0	0	170
11	Airline operators in Nigeria do not adhere to stipulated regulations issued by aviation regulatory body NCAA	15	21	32	65	37	170
12	NCAA does not set policies in line with the stipulations made by ICAO	0	12	51	82	25	170
13	Mergers/acquisition would have prevented some airline from going bankrupt	23	112	0	35	0	170
14	NCAA's surveillance capacity on airlines is satisfactory	67	56	24	23	0	170

### Percentage Variation of Table 1

	Reasons	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
1	The most important attribute to be possessed by every employee is creativity and discipline	57%	28%	0%	5%	10%	100%
2	The Nigeria government policy on airlines has enabled airlines to make huge profit	5%	21%	7%	45%	22%	100%
3	Nigeria airlines has excellent safety record	13%	18%	11%	39%	19%	100%
4	Air crashes is the major reason why some airlines are out of business	8%	69%	0%	23%	0%	100%
5	High cost of aviation kerosene/Gas is NOT one of the major reason some airlines go bankrupt	0%	2%	6%	42%	51%	100%
6	High foreign exchange rate greatly influence airline operation in Nigeria	55%	36%	0%	4%	5%	100%
7	Lack of proper planning by airline operators is chiefly responsible for their operational failure	4%	9%	3%	45%	38%	100%
8	Multiple taxation by FAAN, NIMET, NCAA, AIB & NAMA is NOT a major factor that make some airline to go out of business	0%	3%	0%	7%	90%	100%
9	Many airports do not have runway light, navigational system, therefore most airlines operate 7am – 6pm	49%	31%	11%	6%	4%	100%
10	Aircraft that fly Nigeria's airspace must have a specified age limit	55%	30%	15%	0%	0%	100%
11	Airline operators in Nigeria do not adhere to stipulated regulations issued by aviation regulatory body NCAA	9%	12%	19%	38%	22%	100%
12	NCAA does not set policies in line with the stipulations made by ICAO	0%	7%	30%	+	15%	100%
13	Mergers/acquisition would have prevented some airline from going bankrupt	14%	66%	0%	21%	0%	100%
14	NCAA's surveillance capacity on airlines is satisfactory	39%	33%	14%	14%	0%	100%



**Figure 4:** Graphical Representation of Interrelated Problems of Causes of Airlines Failure in Nigeria.

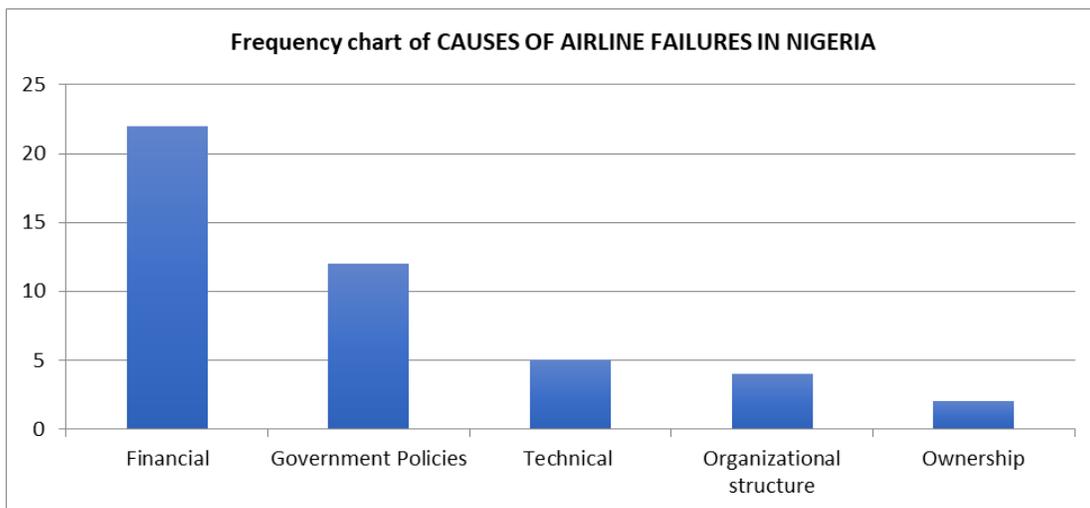
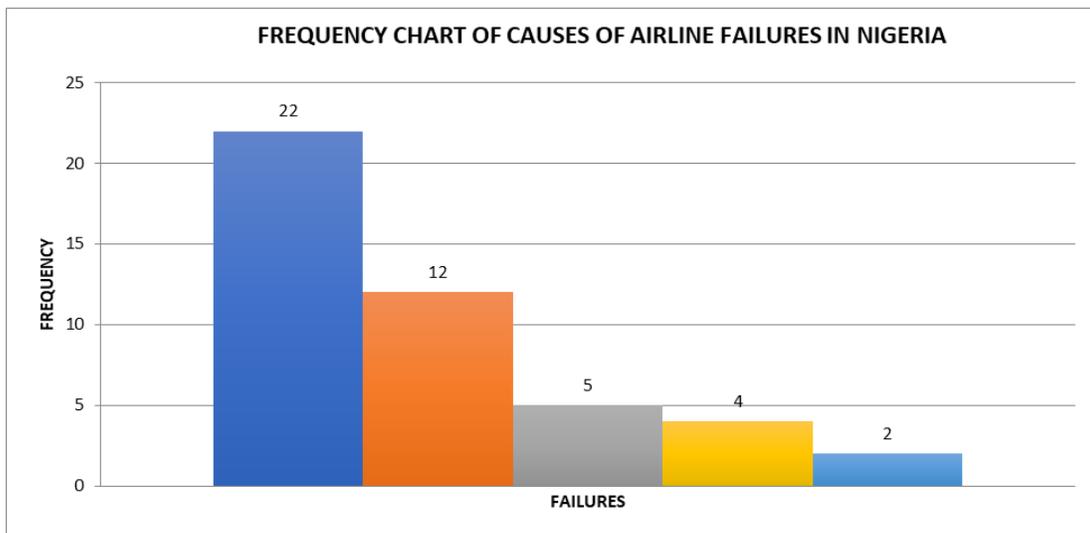
## PARETO

The pareto model was designed from the available data presented above as summarized below using pareto.

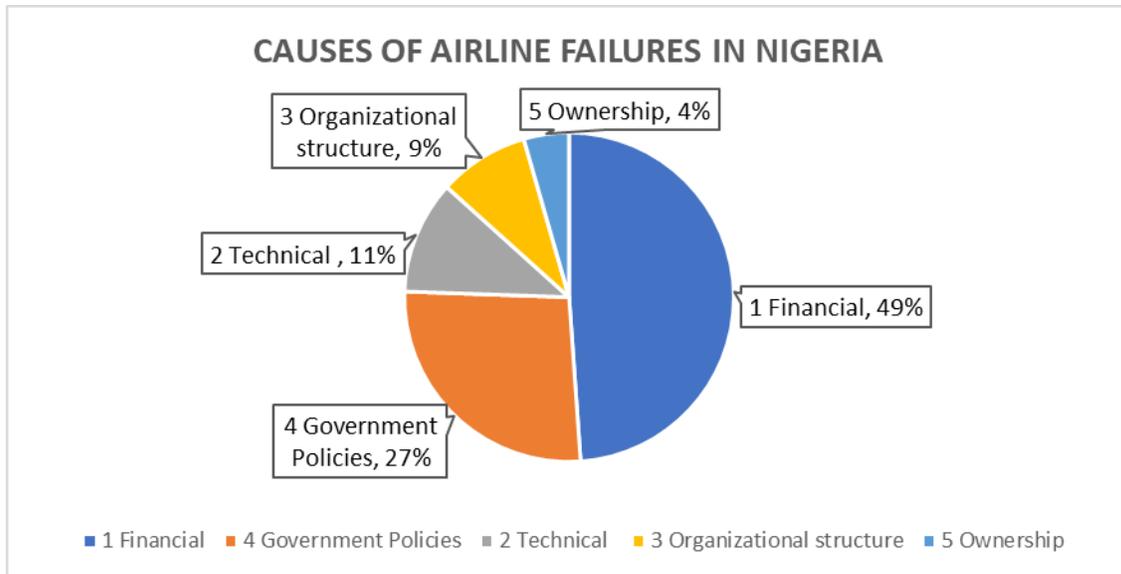
**Table 2:** Pareto Result for the Cause of Airline Failures in Nigeria.

Sr.No	CAUSE OF AIRLINE FAILURES	FREQUENCY	CUMMULATIVE FREQUENCY	PERCENTAGES
1	Financial	22	22	49%
4	Government Policies	12	34	75.56%
2	Technical	5	39	86.67%
3	Organizational structure	4	43	95.56%
5	Ownership	2	45	100.00%
		45		

With pareto tool, the impart of each of the identified problems were categorized based on their level of significance and impact as shown below.



**Figure 5:** Graphical Plot of Airline Failure Pattern in Nigeria.



**Figure 6:** Pie Chart Showing Airline Failure Pattern in Nigeria.

With the result generated from the Pareto analysis, the hierarchy of the interrelated problems from the most significant to the less important identified problem is as follows:

1. Financial problem
2. Government policies
3. Technical challenges
4. Organizational structure
5. Ownership.

Pareto analysis has clearly shown the major failure trend or patterns for which most defunct airlines in Nigeria followed. With financial problem topping the list, it is obvious that any business or organization that is not adequately funded risk the possibility of surviving in a highly competitive market space such as the Nigerian economy. With wrong policies and ever-increasing taxation rate for airline operators that are heading towards verge of collapse, the chances of survival remain minimal. Based on the available data garnered for this research and the analysis carried out on them using pareto, about 80% of the problem emanated from these killing-machine problems. Do we want to stop further airlines from going down these dangerous terrains? Let's resolved these two core problems .

Presently, the major biggest airlines operating in Nigeria today (ARIK AIR and AERO CONTRACTOR) has been taken over by asset management company of Nigeria (AMCON) based on the fact that their debt profile has exceeded 50 billion Naira. This further justifies the

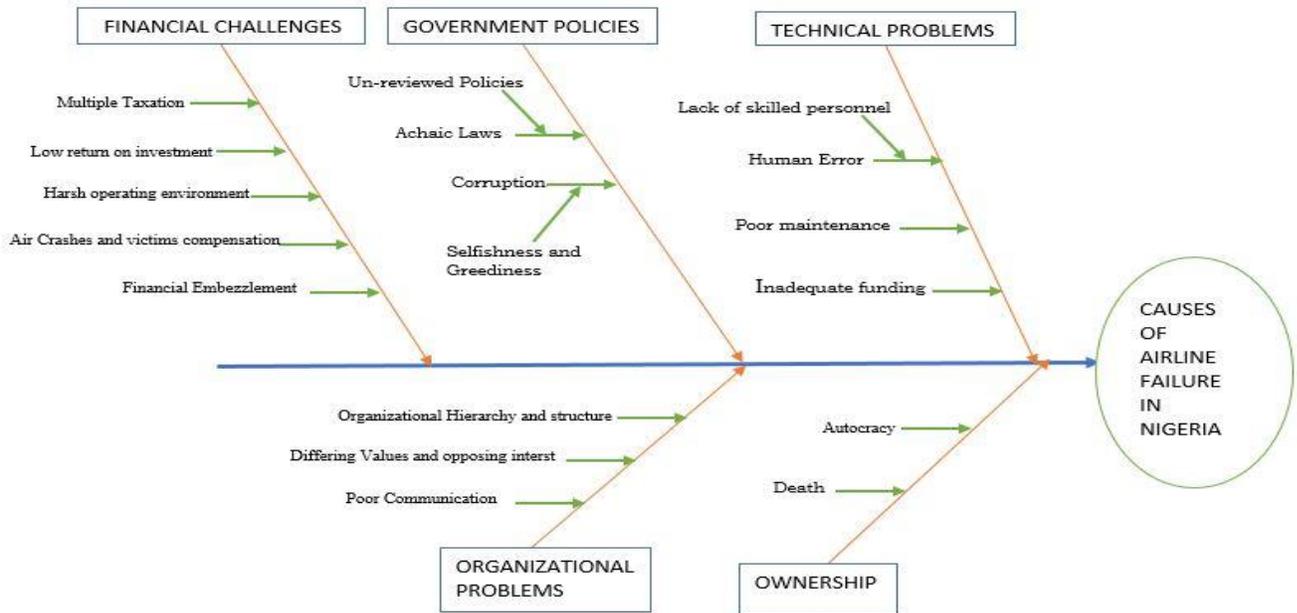
research as these two airlines are currently following the same failure pattern other defunct airlines went through. Obviously, without adequate funding, purchase of aircraft parts becomes burdensome and therefore compromise sets-in for substandard products which endangers lives while some has resulted into fatal crash that has eventually led to the end of those airlines such as Sosoliso and others. Organizational and ownership problem constitute the least problems, however if not well managed, they could also speed up the rate at which the airlines would exit the aviation business in Nigeria.

### FISHBONE

Based on the result achieved from the deployment of Chi-test, five major problems were also identified as root cause of airline failure in Nigeria as shown below. All the airlines that have failed so far were directly impacted by these problems which include:

- a) Financial problem
- b) Technical Problems
- c) Government policies
- d) Ownership problems
- e) Organizational problems

The fishbone analytical tool was used to find out the root-cause of these problems as shown below:



**Figure 7:** Showing Cause-Effect Analysis of Airline Failure Pattern in Nigeria.

The figure above has revealed the backbone of the various problems identified in this research. Operational management deficiencies and poor regulatory framework and practice can be seen from Figure 7 justifying the deduction of result obtained from the Chi-test. With unreviewed government policies and differing values and opposing interest emanating organizational problems, it can be concluded that these factors has formed a major trend for airline failure pattern in the last 45 years in Nigeria.

## RECOMMENDATION

According to (Wensveen, 2007), Airline management is the process of achieving an airline's goal through coordinated performance of five specific functions which include planning, organizing, staffing, directing and controlling. Based on this definition, strategic airline management is key to sustainable growth of any airline.

Therefore, in order to avoid and avert the surge in the number of airlines operating in Nigeria today, extensive planning approach must be deployed, where airline personnel are better equipped to efficiently run the airline uninterrupted. With

proper organizing and staffing procedures, the risk for human error is eliminated as airline workers followed due protocol to execute set task before them, guided by set standard in these organization. The idea of control or regulating airline procedures is also key for effective division of labor internally. With adequate sensitization routine program schedule to further enhance the knowledge of airline managers and staffs, everyone definitely knows what is expected of them to avoid running the airline aground.

The fishbone analytic method deployed has clearly revealed that in order to mitigate individual core five problems identified for this research, the underlisted problem forming the ribs of the fish be addressed individually, hence these problems start to disappear, and with all the ribs and its root cause resolved, the fish dies and the airline began to function optimally.

Based on available facts and figures, the Nigerian government should create an enabling environment for the airlines by overhauling draconian policies biting so-hard on airlines operating in Nigeria. Investigation also revealed that there will be need for improvement in manpower requirements of the aviation industry. The government of Nigeria at all levels should

collaborate to achieve the manpower needs of the industry. Government should ensure that they do not give preference to foreign airlines at the expense of our local airlines.

There is urgent need to support our domestic airlines to enable them grow and build their fleet capacity. Aviation experts has argued over the years that there was need for the government at all levels to do the needful actions and ensure that indigenous airlines are not only encouraged to grow, but proper incentives and support be granted them so as to have the strength to compete favorably with their foreign counterparts flying into the country.

Airlines should make efforts to seek strategies that would enable them carry out their aircraft fleet maintenance locally to save up and avoid much spending resulting from exchange rate.

Finally, it would be recommended that it is high time airline operators in Nigeria start to venture into other business by diversifying and widening their scope of operation. Space technology and rocket launching, or active transport system are untapped areas with huge prospects and opportunities for airlines and other aerospace companies.

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## SUGGESTED CITATION

Adeoye, A.B. and A. Musa. 2019. "An Evaluation of the Failure Pattern of Defunct Airlines in Nigeria". *Pacific Journal of Science and Technology*. 20(2):112-122.

 [Pacific Journal of Science and Technology](http://www.akamaiuniversity.us/PJST.htm)