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AN EVALUATION OF THE CHALLENGES, PROSPECT AND
OPPORTUNITIES OF AIR TRANSPORT OPERATION IN NIGERIA

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ABSTRACT

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. This study examined the challenges, prospect and opportunities of air transport operation in Nigeria. Data was obtained from the administration of questionnaires to 170 aviation workers at Muritala Muhammed Airport in Lagos, who were randomly selected. Simple descriptive statistics, Chi-Square and Analysis of variance were employed. The findings show that private investment is critical to sustainable air transport infrastructure in Nigeria. Based on available facts and figure, it can be concluded that government should create an enabling environment for the airlines and come up with maintenance, repair and overhaul policy, as well as address the foreign exchange challenge facing airlines in Nigeria.

Key Words: Infrastructure, Operation, Enabling Environment, Transport, Aviation

INTRODUCTION

Transport is a critical sector of the Nigerian economy, whose influence effect on socio-economic development, cannot be, overemphasized (Adesanya, 2004). In short, the efficiency and effectiveness

of a nation's transport system with which the mobility and accessibility of passengers and goods are achieved would determine the quality of performance of the transport sector among other things.

Active mode of transportation is the backbone of urban life. It serves as an essential factor which determines the mobility of goods, people and services to form an economically viable environment or an urban setting.

Transport provides the arteries through which the economic life of the people, information and raw materials as well as finished products can be moved from one place to the other (Rodrigue, 2013).

The provision of transport infrastructure and services helps in reducing poverty. It needs no emphasis that various public actions aimed at reducing poverty cannot be successful without adequate transport infrastructure and services. It is difficult to visualize meeting the targets of universal education and healthcare for all without first providing adequate transport facilities (Puri, 2003). 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.

Good transportation infrastructure is essential in economic development. It promotes factor mobility and reduces trade costs. In addition, it promotes market integration, thereby providing avenue for the reduction of price volatility and reallocation of resources in line with comparative advantage. Investments in transportation infrastructure can also influence the productive capacity through its use as a direct input in the production process thereby increasing such resources (Oyesiku et al, 2013).

Air transport system is recognized as the fastest of all modes of transportation which is largely responsible for the geometric growth witnessed in any developed countries of the world.

It is reported that there are over two thousand (2,000) airlines operating more than twenty-three thousand (23,000) aircraft that serves about three thousand seven hundred (3,700) airports around the world (Aerospace Global Report, 2011). This makes aviation industry the gateway to any economy aspiring to develop, enabling globalization, trade facilitation and tourism development. It is very crucial in the promotion of foreign direct investment (FDI) (Stephens, et al, 2014). One can therefore say that the industry is crucial to the growth of the economy and national development. It was also noted that as the emerging economies grow, their demand for air transportation will grow as their citizens become more financially empowered with increased disposable income. Development of air transport infrastructures in these emerging economies will further fuel the growth of the industry.

Together with telecommunications, air transport represents the sectors that epitomize globalization in an economic as well as in a socio-political sense worldwide. Compared to other infrastructure sectors such as roads, water and sanitation, etc. the combination of rapid technological change, industry consolidation, the low-cost carrier business model (LCC), the existence of adequate pricing mechanisms and consumer willingness-to-pay for safe cost-effective services has provided the opportunities for air transport to develop commercially (Button, 2006).

Air transportation is a major industry in its own right and it also provides important inputs into wider economic, political, and social processes. The demand for its services, as with most transport, is a derived one that is driven by the needs and desires to attain some other final objective. Lack of air transport, as with any other input into the economic system, can prevent efficient growth (Nwaogbe et al, 2013).

Air transport has a unique advantage over all other modes of transport; speed, time and distance are major considerations. Air transport is of high value in relation to weight. It is also preferred where accessibility by other modes is a problem (especially in riverine or mountainous regions). Air transportation is a system with many inter-related parts. Each airport is connected to the system through the airways and other airports with which it exchanges flights. Its share of the GDP is however, still

legible in Nigeria (Aderamo, 2006). In Nigeria, the demand for air transport services has been on the increase within the past three decades. There has been growth in passenger, aircraft and freight traffic as a result of physical and economic development of cities in different parts of the country. Fast connections between the diverse economic spaces of Nigeria are better achieved through air transportation. According to (Ogunbodede, 2006), the diversity in the resource endowment between the North and the South is an important factor in the growth of air transport in Nigeria.

The full potential of the civil aviation sector in Nigeria, however, has yet to be realized. This may necessitate an improvement in the quality of services, competitive pricing and better airport infrastructure (Chikwe, 2002).

In the past, steps were taken to improve the quality of air transport services. The emphasis was on liberalization of the air transport sector in order to encourage private sector participation. Over the years, the Government has disengaged itself considerably from commercial airline operations. Private sector participation in domestic air services has been aimed at bridging the resource gap in investments to meet the growing demand and improve the managerial and operational efficiency of air services (Puri, 2003).

Prior to deregulation, the Nigeria airline services were characterized by irregular and ineffective services and poor result oriented in nature. However, after deregulation, the airline services in Nigeria witnessed a new era of growth and advancement. The deregulation regime offered an increased interest and investment in the more dormant Nigerian aviation industry.

In addition, the air service in the domestic and international terminal recorded tremendous changes as compared to the old. Also, foreign airlines use the nation's terminals as hubs for flights operations within and outside the continents. On the other hand, the domestic operations of airline services benefited from deregulation and privatization as consortium invested in terminal development. The improved facilities and amenities offered in the new terminal engendered improved services to the passengers.

Indeed, the airline services in Nigeria after deregulation witnessed an improved, standardized services compared to the period before deregulation.

Although the air mode is recent in Nigeria when compared with the road and railway modes, its contribution to the development of transportation in Nigeria is very significant. For instance, domestic passenger traffic stood at 3,093,000 in 1988. It rose to 4,618,000 in 1998 and 6,424,000 in 2004 (Aderamo, 2006). Similarly, both cargo and mail transportation by air had been on regular demand (FMT, 2004). All these are indications of increasing demand for air transport services in the country. In order to accommodate future demand for air transport services in Nigeria, it is expedient to plan for it. More development on the issue of passenger travel demand will greatly assist the aviation industry. The long run success of any aviation organization is closely related to how well management is able to foresee the future and develop appropriate strategies.

Understanding the development of air transportation management in Nigeria, it is also crucial to understand the challenges facing the industry. In Africa, the potentials for growth and development are quite promising. The expansion in external trade among most African countries such as Nigeria, Ghana and South Africa has resulted in increased demand for more effective transportation. The expansion of international trade in these regions has placed a lot of demand on the importance of the air transportation industry.

At the beginning of 21st century air transport has grown into one of the world's very important industries. It has brought employment and prosperity to millions of people whilst expanding world trade and increasing the opportunities for travel and tourism. With almost 3.8 billion passengers carried in

the year 2016, air transport is global economically vital business, encompassing all subjects of aviation value chain including the aircraft and engine manufacturers, fuel suppliers, airports and air traffic control systems. The current state of the aviation market is characterized by the presence of very strong competition and rapid changes made by forces of deregulation, fast technology improvements, industry consolidation and innovations. In such competitive environment, airlines that can quickly and effectively adapt and change on the market take advantage which is key to winning in the highly competitive arena (Ružica, Jasmin & Bajić, 2017).

Table 1 showed the revenue generated in the aviation industry as well as the volume of throughput and the National GDP of Nigeria. It further showed the contribution in percentage of GDP. However, amongst other things, availability of a strong air transportation system is a key determinant to the flow of FDI (Wilhelms, 1998).

Table 1: Aviation industry contribution to National GDP

| Year | Revenue in Millions of Naira | Throughput in passengers | GDP in Millions of Naira | Industry's Share in percentage of GDP |
|------|------------------------------|--------------------------|--------------------------|---------------------------------------|
| 1985 | 95 | 344,208 | 2,937,037.52 | 0.003234552 |
| 1986 | 187 | 193,649 | 4,353,503.43 | 0.004295391 |
| 1987 | 174 | 152,877 | 5,769,969.34 | 0.003015614 |
| 1988 | 146 | 112,105 | 7,186,435.25 | 0.002031605 |
| 1989 | 106 | 713,336 | 8,602,901.16 | 0.001232142 |
| 1990 | 78 | 305,617 | 10,019,367.07 | 0.000778492 |
| 1991 | 57 | 102,101 | 11,435,832.98 | 0.000498433 |
| 1992 | 26 | 509,819 | 12,852,298.89 | 0.000202298 |
| 1993 | 104 | 917,538 | 14,268,764.80 | 0.000727463 |
| 1994 | 484 | 1,325,256 | 15,685,230.71 | 0.003088255 |
| 1995 | 803 | 1,732,974 | 17,101,696.62 | 0.004696025 |
| 1996 | 996 | 2,140,692 | 18,518,162.53 | 0.005377963 |
| 1997 | 1338 | 2,548,411 | 19,934,628.44 | 0.006710434 |
| 1998 | 1657 | 2,956,129 | 21,351,094.35 | 0.0077626 |
| 1999 | 2072 | 3,363,847 | 22,767,560.26 | 0.009101546 |
| 2000 | 2398 | 3,384,262 | 24,184,026.17 | 0.009914395 |
| 2001 | 2817 | 4,399,333 | 25,600,492.08 | 0.011003304 |
| 2002 | 3304 | 4,831,525 | 27,016,957.99 | 0.012230467 |
| 2003 | 3747 | 5,573,101 | 28,433,423.90 | 0.013178153 |
| 2004 | 4268 | 6,464,545 | 29,849,889.81 | 0.01429955 |
| 2005 | 4817 | 2,744,888 | 31,266,355.72 | 0.015406337 |
| 2006 | 5101 | 7,016,780 | 32,682,821.63 | 0.015606976 |
| 2007 | 5481 | 7,174,200 | 34,099,287.54 | 0.016073063 |
| 2008 | 5988 | 7,033,311 | 35,515,753.45 | 0.016859842 |
| 2009 | 6668 | 7,441,030 | 36,932,219.36 | 0.018053342 |
| 2010 | 7410 | 7,848,748 | 38,348,685.27 | 0.019322696 |
| 2011 | 7532 | 8,256,466 | 39,765,151.18 | 0.018941208 |
| 2012 | 7697 | 8,664,184 | 41,181,617.09 | 0.018690378 |

Source: Nigerian Bureau of Statistics.

DEFUNCT AIRLINES IN NIGERIA

The concept of defunct airlines cannot be fully discussed until certain factors which made them go bankruptcy is analyzed. The table below tends to analyze the various defunct airlines in Nigeria since the day of her independence, why they failed and the solution to their insolvency in the aviation sector.

Airlines registered in Nigeria carry 6 million passengers and 119,000 tonnes of freight a year to, from and within Nigeria (Oxford economics, 2012). Among the many reasons that people and businesses use air transport, people rely on it for holidays and visiting friends and family; while businesses use air transport for meeting clients and for the speedy and reliable delivery of mail and goods often over great distances.

Airlines registered in Nigeria directly employ 7,000 people locally, and support through their supply chains a further 33,000 jobs. Examples of these supply-chain jobs include those in the distribution sector delivering aviation fuel; and jobs in the catering sector preparing the meals served on airlines. A further 21,000 jobs are supported through the household spending of those employed by airlines and their supply chain. These airlines directly contribute around NGN 29 billion to the Nigerian economy (GDP). The sector contributes indirectly another NGN 17 billion through the output it supports down its supply chain. A further NGN 11 billion comes from the spending of the employees of the airlines and their supply chains.

Overall, these airlines contribute over NGN 58 billion to the economy and support 61,000 jobs in Nigeria. Aviation's ground-based infrastructure employs 37,000 people and supports through its supply chain a further 31,000 jobs. These indirectly supported jobs include, for instance, construction workers building or maintaining facilities at airports. A further 30,000 jobs are supported by the spending of those employed by the aviation industry's ground-based infrastructure and its supply chain. (Oxford Economics, 2012).

All these contributions to the Nigeria GDP are only made possible based on the operation of 15 domestically operated airlines and a total of 22 airlines operating internationally in Nigeria. This makes a total of 37 airlines operating currently in Nigeria while a total of 45 airlines are out of business in Nigeria accounting for 54.87% of defunct airlines in Nigeria since independence. Table 2 below shows the list of all defunct airlines in Nigeria since the day of independence.

Table 2: Defunct Airlines in Nigeria

| S/N | AIRLINES | CALL SIGN | OPERATION COMMENCEMENT YEAR | YEAR THEY CEASED TO EXIST |
|-----|---------------------------|-------------------|-----------------------------|---------------------------|
| 1 | ADC Airline | ADCO | 1984 | 2006 |
| 2 | Afrijet Airline | AFRIJET | 1998 | 2009 |
| 3 | Air Atlantic Cargo | - | 1994 | 1999 |
| 4 | Air Nigeria | NICON FLIERS | 2010 | 2012 |
| 5 | Albarka | AL-AIR | 1999 | 2005 |
| 6 | Al-Dawood Air | AL-DAWOOD AIR | 2001 | 2005 |
| 7 | Amako Air | - | 2002 | 2003 |
| 8 | Amed Air | - | 1994 | 1996 |
| 9 | Arax Airlines | - | 1977 | 1988 |
| 10 | Axiom Air | - | 2009 | 2011 |
| 11 | Barnex Air | - | - | 1991 |
| 12 | BellView Airline | BELLVIEW AIRLINES | 1992 | 2010 |
| 13 | Capital Airline (Nigeria) | - | 2003 | 2010 |
| 14 | Chrome air service | Chrome Air | 1999 | 2006 |
| 15 | Dasab airline | Dasab Air | 2001 | 2006 |
| 16 | Earth Airline | - | 2001 | 2004 |
| 17 | EAS Airline | ECHOLINE | 1993 | 2006 |
| 18 | Easy Link Aviation | FLY ME | 2001 | 2007 |
| 19 | Freedom Air Service | INTER FREEDOM | 1998 | 2005 |
| 20 | Fresh Air (Airline) | Fresh Air | 1999 | 2006 |

| | | | | |
|----|------------------------------------|---------------|------|------|
| 21 | GAS Air Nigeria | - | 1973 | 2000 |
| 22 | Hamsal Air | - | 2008 | 2009 |
| 23 | Harco Air Service | - | 1992 | 1998 |
| 24 | Hold-Trade Air | - | 1991 | 2000 |
| 25 | IAT Caro Airlines | - | 1994 | 1998 |
| 26 | Intercontinental Airlines (Nigeria | - | 1978 | 1990 |
| 27 | Mangal Airlines | - | 2006 | 2008 |
| 28 | Meridian Airlines | - | 2004 | 2008 |
| 29 | Nicon Airways | NICON AIRWAYS | 2006 | 2007 |
| 30 | Nigeria Airways | NIGERIA | 1971 | 2003 |
| 31 | Nigeria One | - | 2013 | 2013 |
| 32 | Nigeria Eagle Airline | - | 2009 | 2010 |
| 33 | Nigeria Global Aviation | - | 2003 | 2003 |
| 34 | Okada Air | Okada Air | 1982 | 2002 |
| 35 | Overnight Cargo Nigeria | - | 1992 | 1994 |
| 36 | Pan African Airline | - | 1961 | 2000 |
| 37 | Premium Air Shuttle | - | 1995 | 2006 |
| 38 | Sosoliso Airline | SOSOLISO | 1994 | 2006 |
| 39 | Space World International Airlines | - | 2002 | 2006 |
| 40 | TAT Nigeria | - | 2003 | 2012 |
| 41 | Trans Sahara Air | - | 2001 | 2004 |
| 42 | Trans-Air Service | - | 1992 | 1994 |
| 43 | Triax Airlines | - | 1992 | 2000 |
| 44 | Virgin Nigeria | - | 2004 | 2009 |
| 45 | Wings Aviation | TRADEWINGS | 2001 | 2012 |

Source: Authors Compilation

FACTORS THAT DIRECTLY INFLUENCES AIRLINE OPERATION IN NIGERIA

Safety and Security

The maintenance and safety culture in aviation is inevitable. Safety culture, according to (Eliff, 1999) refers to a situation in an organization where each individual employee, regardless of position, assumes an active role (supported by the organization) in error prevention. Emphasizing the essence of safety culture, (Wiegmann et al, 2002) recognize that operators do not interact with technology in isolation; rather they function “as coordinated teams embedded within a particular organizational culture. (Johnson et al, 2006) argue forcibly that safety initiatives are required to help reduce the frequency of air accidents. They suggest the approach whereby new cockpit technology can be utilized to enable pilots avoid completely adverse weather or recover speedily from hazardous situations. (Reason, 1990) posits that the basic cause of air accidents is the fallible decisions made by designers and high-level managerial decision makers. He identifies two types of errors; active errors (effects of which are felt in no distant time), and latent errors which linger for a long period, and present themselves sequel to the intervention of regulators, internal auditors or accidents, only when, they have acted with other factors to collapse a system’s defenses. Active errors, according to him, are associated with the actions of air traffic controllers, pilots and control room crews, while latent errors are linked with the actions of maintenance personnel, designers and high-level decision makers. Thus, these errors “pose the greatest threat to safety of a complex system”. This is illustrated in the model below.

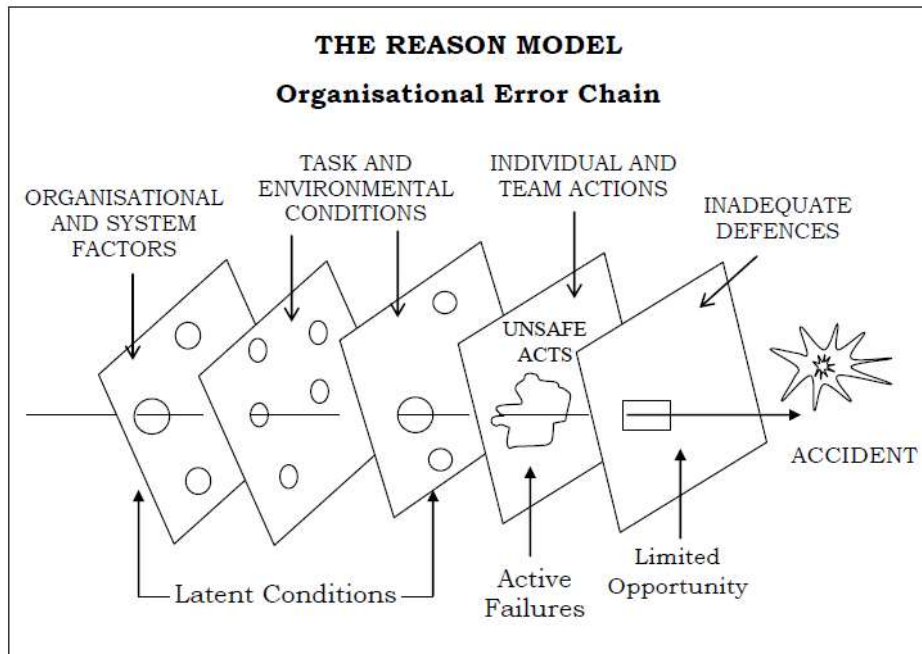


Figure 1: The Reason Model

Source: Reason (1990). Human Error. Cambridge University Press

According to (Akintola, 2006), Nigerian’s air safety record is appalling, as the airspace is regarded as one of the most dangerous; making nonsense of whatever reforms the government had embarked upon. (Nwokoro, 2007) posits that some operators “cut corners in their day to day flight operations, thus compromising safety and endangering the lives of passengers, contrary to the rules and regulations guiding the airline industry”.

Table 3: Aircraft Accidents and Incidents at Murtala Muhammed International Airport, Ikeja, 1968-2012

| Year | Total Accidents and Incidents | Approach Landing/Phase of Accidents and Incidents | Percentage Difference |
|-----------|-------------------------------|---|-----------------------|
| 1968-1972 | 8 | 7 | 87.5 |
| 1973-1977 | 2 | 2 | 100 |
| 1978-1982 | 2 | 2 | 100 |
| 1983-1987 | 2 | 1 | 50 |
| 1988-1992 | 4 | 2 | 50 |
| 1993-1997 | 8 | 6 | 75 |
| 1998-2002 | 5 | 3 | 60 |
| 2003-2007 | 5 | 4 | 80 |
| 2008-2012 | 4 | 2 | 50 |

Source: Hassan (2016)

RESEARCH METHODOLOGY

The data collected were sorted, processed and analysed 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 analysed 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 challenges, prospect and opportunities of air transport operation in Nigeria with special reference to Muritala Mohammed International and Local Airport. The simple percentage was used to analyse the respondents' bio data and their responses to opinion questions while the chi – square and analysis of variance were used for test of hypotheses.

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

Socio-economic characteristics of the Respondents

Table 4: The characteristics of respondents

| S/N | Responses | Respondents | % |
|-----|-------------------------|-------------|------------|
| 1 | Top-level management | 30 | 17.64 |
| | Middle-level management | 86 | 50.58 |
| | Permanent staffs | 42 | 24.71 |
| | Contract staffs | 12 | 7.05 |
| | TOTAL | 170 | 100 |

Source: Author's Field Survey, 2018

Table 4 above shows that 17.64% of the respondents are top managers. 86 respondents, representing 50.58% belong to the middle – level management. While 24.71% are permanent staff, 7.05% are working on contract basis. The analysis shows that the highest percentage of the workforce is represented by the middle management cadre. One can therefore infer that a significant portion of responsibilities is delegated to staff within the middle management cadre.

Table 5: Age Distribution of Respondents

| S/N | Responses | Respondent | % |
|-----|----------------|------------|-------------|
| 2 | Below 20 years | - | - |
| | 21 -29 | 11 | 6.47 |
| | 30-39 | 43 | 25.29 |
| | 40-49 | 95 | 55.88 |
| | 50-59 | 21 | 12.35 |
| | Above 60 | - | - |
| | TOTAL | 170 | 100% |

Source: Author's Field Survey, 2018.

From the table above, only 12.35% of the respondents fall within the age bracket 50 – 59 yrs. The rest are not up to 50 years of age. This implies that the bulk of employees of FAAN, NAMA and NCAA, on the basis of chronological age, can be considered fit to carry out stipulated responsibilities.

Table 6: Respondents’ Length of Service in the Authority (FAAN, NAMA, & NCAA).

| S/N | Response | Respondent | % |
|-----|-------------------|------------|-------------|
| 3 | Less than 5 years | 15 | 8.82 |
| | 5-10 years | 44 | 25.88 |
| | 11-20 years | 84 | 49.41 |
| | 21 and above | 27 | 15.88 |
| | TOTAL | 170 | 100% |

Source: Author’s Field Survey, 2018.

Table 6 shows that 8.82% of the respondents have worked for less than 5yrs. A clear majority of the respondents affirm that they have worked for upwards of ten years and above, while 15.88% have worked for over twenty years. One can then assume that daily operations are carried out effectively, considering the fact that majority of the staff of NCAA have had up to 10 years of working experience

Table 7: Sex Distribution of Respondents

| S/N | Responses | Respondent | % |
|------------------------|--------------|------------|------------|
| 4 Indicate your sex | Male | 126 | 74.11 |
| | Female | 44 | 25.88 |
| | Total | 170 | 100 |

Source: Author’s Field Survey, 2018.

The sex distribution in the table above shows that 74.11% of the respondents are males, while 25.88% are females.

Table 8: Highest Educational Qualification of Respondents

| S/N | Responses | Respondents | % |
|--|-----------------|-------------|-------------|
| 5 What is your highest qualification? | Ph.D. | 2 | 1.17 |
| | Master’s Degree | 49 | 28.82 |
| | B.Sc./B. A. | 106 | 62.35 |
| | Diploma | 13 | 7.64 |
| | WASSCE/GCE | - | - |
| | TOTAL | 170 | 100% |

Source: Author’s Field Survey, 2018.

Table above shows that 28.82% of the respondents have university education up to master’s level. 62.35% also have university education, but have not obtained masters degrees. Only 7.64% of the respondents are holders of the National Diploma. The inference here is that majority of the employees of FAAN, NAMA & NCAA have attained a reasonable level of education.

TEST OF HYPOTHESIS

Hypothesis One: Hypothesis one is sort to ascertain whether the high cost of aviation fuel is either responsible for the ever-increasing number of defunct airlines in Nigeria or not.

To test the hypothesis, relevant data on high cost of aviation fuel have been utilized. Thus the null and alternative hypotheses, H_0 and H_1 respectively, are stated below:

H_0 : The high cost of aviation fuel is not responsible for major airline failures in Nigeria.

H_1 : the high cost of aviation fuel is grossly responsible for the failures of major airlines in Nigeria.

Level of significance = 0.05

Sample size = 170

TEST STATISTICS

$$F(c - 1), (n - c) = \frac{SB^2}{SW^2}, \text{ where}$$

n = Total number of observations in the sample

c = number of groups

SB^2 = Variance between groups

SW^2 = variance within groups.

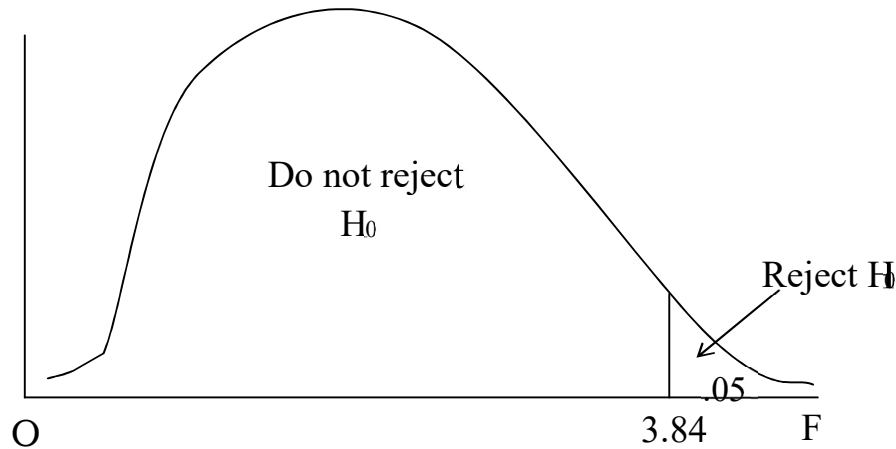


Fig. 2: Regions of rejection and non-rejection for the analysis of variance at the 5% level of significance with one degree of freedom.

Decision Criterion:

If the computed F – value is greater than the critical F – value at 3.84 at one degree of freedom, we reject H_0 , otherwise we accept H_0 .

Statistical Decision:

Since the computed F value at 0.05 level of significance, 3.040 is less than the critical value, 3.84, H_0 is accepted and H_1 is rejected.

Conclusion:

The high cost of aviation fuel is not a major reason why most airline operators are out of business in Nigeria.

Hypothesis Two: In hypothesis two, the researcher desires to know if a relationship actually exists between the respondent’s opinion on high exchange rate influencing airline operation in Nigeria and what is obtainable in the society or of the populace. The data presented with respect to influence of exchange on airline operation has been used for testing the hypothesis. The null and alternative hypotheses, H₀ and H₁ respectively, are stated below:

H₀: foreign exchange rate is the major reason why some airline went out of business in Nigeria.

H₁: foreign exchange rate is not major reason why some airline went out of business in Nigeria.

$$\chi^2_{(R-1)(C-1)} = \sum_{\text{all cells}}^n \frac{(f_0 - f_t)^2}{F_t}$$

Where:

f₀ = observed frequency in each cell.

f_t = theoretical frequency in each cell.

R = number of rows in the contingency table.

C = number of columns in the contingency table

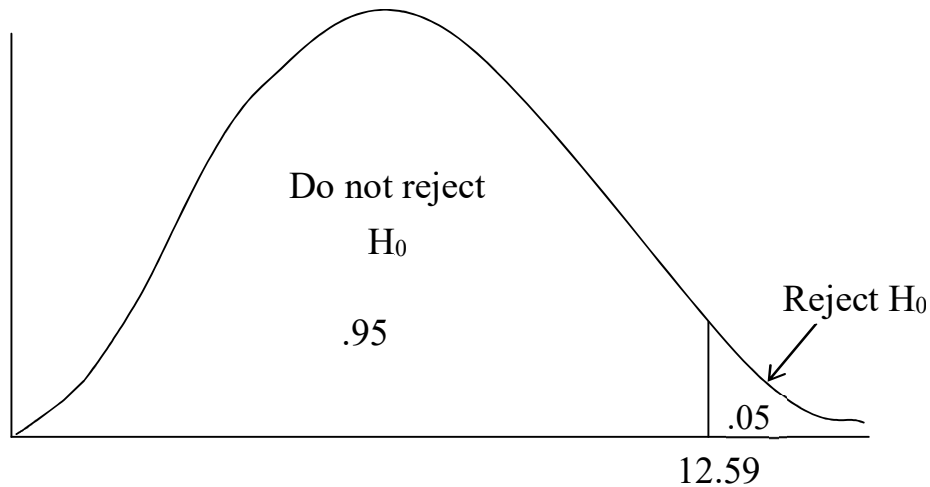


Fig. 3: Determination of the critical value of Chi – square at the .05 level of significance with degrees of freedom.

Decision Criterion:

If the computed Chi – square value is less than the critical value, the null hypothesis, H₀ is accepted, but if the computed value is greater than the critical value (12.59), H₀ is rejected.

Hypothesis Three: In hypothesis three, the author desires to ascertain whether lack of proper planning by airline operators is grossly responsible for their operational failure or not. For testing the hypothesis,

the responses provided by respondents as regards planning by airline operators has been utilized. The null and alternative hypotheses are hereby stated:

H₀: Lack of planning by airline operators is chiefly responsible for their operational failures.

H₁: Lack of proper planning by airline operators is not responsible for their operational failure.

$$X^2_{(R-1)(C-1)} = \sum_{\text{all cells}}^n \frac{(f_0 - ft)^2}{ft}$$

Where:

f₀ = observed frequency in each cell.

ft = theoretical frequency in each cell.

R = number of rows in the contingency table.

C = number of columns in the contingency table

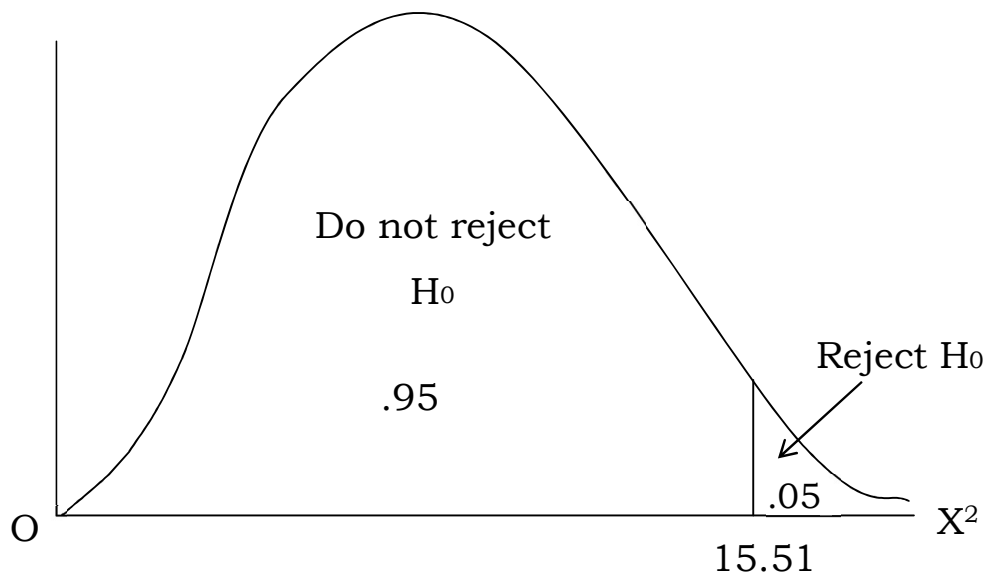


Fig. 4.5: Determination of the acceptance and rejection regions for Chi – square at the 0.05 level of significance with 8 degrees of freedom.

Decision Criterion:

If the computed Chi – square value is less than the critical value, H₀ is accepted, but if the computed value is greater than the critical value, H₀ is rejected, and H₁ accepted.

CONCLUSIONS

Based on available facts and figure, it can be concluded that government should create an enabling environment for the airlines and come up with maintenance, repair and overhaul policy, as well as address the foreign exchange challenge facing airlines 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.

Against, the backdrop that local airlines are catalysts for economic development, used to energize other sectors, providing seamless intra-connectivity by taking passengers from one state to another, it is imperative that relevant government ministries, agencies and departments should come up with favourable foreign exchange policy to address the challenge of foreign exchange rate in the aviation sector.

Government must create the right environment and incentives for stakeholders to contribute to development and ensures that resources needed for construction and maintenance of transport infrastructures are available at the lowest possible cost or price through a more pluralistic and inclusive approach to transportation planning, in which all stakeholders function as partners.

Conclusively, policies should be made to stimulate local airlines operators whose revenue reserves has been dwindling and whose debt profile has geometrically increased over the years to merge together with other airlines to form a bigger entity to remain relevant in the aviation business. This would reduce the rate at which airlines operation fails in Nigeria.

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