

Determinants of Airline Choice in Hub Airports of Nigeria

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Abstract

Currently, there are about 2000 airline operators with over 23,000 aircrafts servicing over 3,700 airports across the world, this continually stimulate airline operators to increase their market share on the global air transport landscape. This study investigate the factors determining passenger choice of airline in hub airports of Nigeria, it formulated one null hypothesis stating, **there is no statistical significance relationship between airline passenger's choice and airline service attributes**. Three hub airports (MMIA, Lagos, NAI, Abuja and MAKIA, Kano) and five airlines (Arik Air, Aero Contractor, Air Peace, Azman and Medview) were purposely selected on the basis of flights and passenger traffic recorded. Using Cochran's formula for sample size determination, 384 copies of structured questionnaires were administered to collect information from domestic and international passengers. The data were analysed using descriptive and inferential statistics; Pearson Product Moment Correlation was used to test the hypothesis. The result shows that airline Security ($M = 4.6889$), Safety ($M = 4.6444$) and Flight Cancellation & Delay ($M = 4.62963$) were the six major service elements influencing passengers' choice. The result of the hypothesis indicate that there is a significant statistical relationship between passenger's choice and airline safety ($p\text{-value} = 0.006$), Security ($p\text{-value} = 0.002$), adherence to departure and arrival time ($p\text{-value} = 0.001$), flight cancellation and delay ($p\text{-value} = 0.000$). Whereas, there is no significant statistical relationship between passengers' income and in-flight technology service ($p\text{-value} = 0.583$) and airline staff knowledge to answer passenger's question ($p\text{-value} = 0.347$). The study recommend a progressive service improvements on all the service attributes with significant impact listed above.

* **Key words:** Customers, Airlines, Air Carriers, Service Quality, passengers.

Introduction

Air carriers are crucial to the world economy, without air transportation there will be no leisure, tourism and international trade will be difficult to conduct (Tiernan, Rhodes, and Waguespack, (2008). The overall contribution of air transport industry to the world economy in year 2016 exceeded USD \$7.6 trillion and

this accounts for over 10% of the global gross domestic product. At the continental level, aviation sector contributes about USD \$10 billion to the African economy. Over 2000 airline operators with over 23,000 aircrafts are known to serve over 3,700 airports across the world, these developments continually stimulate airline operators towards increasing

their market share on the global air transport landscape. In airline business, quality service determines the quantity of service demanded by air traveller. The demand of an airline service affects its revenue, through service patronage (Chikwendu, Ejem& Ezenwa, 2012). Wanke, Barros & Nwaogbe(2016), argued that customer satisfaction is determined by identifying the gap between service expectation and the actual service provided by the organization, to this extent, airline service quality must be tailored towards better user satisfaction.

The choice of airline service varies from one passenger to another, this could be influenced by their socio-economic characteristics and other airline service related factors. Clemes, Gan, and Ren (2011), contended that a successful conveyance of customer satisfaction is a fundamental determinant for the long term productivity of organization. However, it seems that several effort by air carriers to improve service quality in Nigeria has not yield the desired result as issues of poor baggage handling, increasing flight cancellation and delay, improper handling of customers complain are still a common phenomenon in Nigerian airports. It is imperative to note that if the overall airline customer satisfaction level is poor, it will have a significant impact on their patronage and hence the overall contribution of the sector to the country's GDP. It is against this backdrop that this study seeks to determine the factors influencing the choice of airline in hub airports of Nigeria. The study formulated one null hypothesis stated as follows: There is no statistical significance relationship between airline passenger's choice and six most important airline service attributes (safety, security, adherence to departure and arrival time, flight cancellations and delays, in-flight technological skills and staff knowledge to answer passengers' question).

Empirical review on service elements and passenger choice of carrier

Literatures on passengers' behaviour and factors affecting their choice of airline service revolves around: service elements and passenger's loyalty, the condition of the market, leisure trips and sensitivity to price, service quality and airline corporate image. Ukpere, Stephens, Ikeogu, Ibe and Akpan ((2012), opined that for a sound decision to be made by airline passenger, the market must be perfectly competitive, because air transport has improved throughout the years consequently its demand has risen. Stephens (2008), noted that service elements like; airline ticket price, absence of flight delay, hosteller's behaviour, comfort, reliability among others strongly determine airline choice in Nigeria. Tsaur, Chang and Yen (2002), argued that the most significant factors determining airline service quality are staffs words of mouth, on-board comfort and cleanliness, safety, responsiveness of the flight attendant, on-board amusement and lengthy travel service. Although airline fare could be a major determinant of airline choice, Smithies (1973) pointed out that leisure travel are less sensitive to price of flight ticket, but airlines dimensions like: safety, reliability, comfort, on-board crew conducts, frequency, power of monopoly, management policy act as a deciding element for carrier choice. In a similar exertion of factors determining airline choice, Akpoghomeh, (1988) identifies convenience, reliability, comfort, security and on-board crew conducts as properties for decision making by airline customers.

Nwaogbe, Abraham, Balogun, Ikeogu, & Omoke (2017) study on airline service quality at category 'one' airport in Kano, the result shows that customers are satisfied with the overall quality of service provide by Arik, Aero and Azman based on comfort, affordability and service reliability. Akpoyomare, Kunle-Adeosun & Ganiyu (2016), investigated the relationship between service quality and

passenger loyalty among domestic carriers in Murtala Muhammed International Airport (MMIA), the result shows the existence of positive relationship among the service quality dimensions of: customers' satisfaction and customer's loyalty. Geraldine & Chikwendu (2013) study also revealed that service attributes influence airlines corporate image and passenger loyalty in MMIA Lagos.

Usman & Noreen (2014), studied customer satisfaction in the airline industry of Pakistan, the result shows that airlines offering better service to customers has higher patronage than carriers with less service satisfaction. Simsek & Demirbag (2017), modelled service quality, customer satisfaction and behavioural goals in airline industry in Turkey, utilizing Structural Equation Model (SEM). The result indicates that, dimension image has a strong significant perceived quality service by customer and, staff words of mouth was identified to have a positive impact on customer satisfaction, thereby enabling customers' loyalty. Curtis, Rhoades, & Waguespack (2012), investigated Customer's satisfaction with airline service quality in US, the study aims at investigating the level satisfaction frequency amongst frequent and non-frequent flyers. The studies revealed that the more the level of customer satisfaction with overall air carrier's quality of service increased, the more air travellers fly. Adeola & Adebisi (2014), examined the perceived value quality and customer loyalty as determinant of Airline choice in Nigeria, the result shows that income, social status, poor states of roads as well as the insecurity accounted for the sudden rise in air transport travellers and that service quality, perceive value influences their satisfaction level on the choice of airline. Rahim (2016) investigated the perceived service quality and customer loyalty, in Nigerian airline industry, the result of the study indicates that the perceived service quality is positively related to both customer's satisfactions and loyalty. Okeudo & David (2013), studied the effects of airline service

quality on airline image and passengers' loyalty using Arik airline as a case study, the result showed a positive relationship between the service quality variables and airlines image. The foregoing studies have shown the degree to which airline passengers' satisfaction relates to service attributes. As such, what is perhaps, lacking is how airline passengers can use each of the attributes in making choice of airline service for purposes of patronage.

The Study Area

There are thirty-one airports in Nigeria, but this study focuses on three hub airports. These airports are: Murtala Mohammed International Airport (MMIA), Lagos, Mallam Aminu Kano International Airport (MAKIA), Kano and Nnamdi Azikiwe International Airport (NAIA), Abuja. These three airports were purposely selected on the basis of local and international flights and passengers recorded. The Murtala Mohammed International Airport, Lagos is located at longitudes $06^{\circ}34'38''N$ and latitude $003^{\circ}19'16''E$, it is about 17km northwest of Lagos City. The development of Lagos as one time capital city of Nigeria, commercial hub of and port city have led to the growth of the region and subsequently attracted many Industries and by implication influenced air traffic. The Mallam Aminu Kano International Airport is the oldest Airport in Nigeria, since the first aircraft landed in Nigeria through Kano in 1922 and the commencement of commercial operations in 1936. The airport is located on latitude $12^{\circ}02'55''N$ and longitude $8^{\circ}31'20''E$. The economic activities of Kano as the commercial nerve-centre of northern Nigeria have had some multiplier effect on air traffic. The Nnamdi Azikiwe International Airport, Abuja is located about 40 kilometers away from the city centre, it is located on $9^{\circ}00'24''N$ and $7^{\circ}15'47''E$. the airport has an international and a domestic terminal which shared a common runway.

These three airports serve as hubs for Air

Peace, Medview Aero Contractors, Max Airlines and Arik Airlines whose passengers were sampled during the survey. The five airlines were selected because they were the major Nigerian private airlines with their operational headquarters in these airports. Air Peace, is a Nigerian private airline established in 2013, it has its base at Murtala Muhammed International Airport Ikeja-Lagos. It provides aircraft chartering and passenger services for both domestic and international air Traffic. It has a total of twenty three (23) fleets and fly 20 local and international destinations. Medview airline has its headquarters in Lagos; it was first established to handle pilgrimage flights in 2007, but has since commenced full commercial operation flying nine each of domestic and international routes. The airline has five aircrafts which includes two Boeing 737-400, one Boeing 737-500, one Boeing 767-300ER, and one Boeing 777-200ER. Aero Contractor is owned by the Ibru family, it has its base at MMIA Ikeja-Lagos also and operates helicopter and fixed wing domestic and international scheduled passenger services. It has seven fleets which includes two Boeing 737-500, two de Havilland Dash 8-Q400, one Boeing 737-400, one de Havilland Dash 8-Q200, and one de Havilland Dash 8-Q300, the network of operation span across 13 destinations.

Max Air which serves both domestic and international routes was established in 2008, the airline has its hub in Kano and it represents the country longest serving international carriers. The airline has nine fleets which comprises of four Boeing 737-300, three Boeing 747-400, and two Learjet. Arik air was establish in 2006, it has two Hubs in Nnamdi Azikiwe International Airport, Abuja and Murtala Muhammed International Airport, Lagos. The airline secondary hub is at Kotoka airport in Ghana. It has a total of 16 aircraft. The airline domestic network covers: Lagos, Abuja, Benin, Calabar, Enugu, Gombe, Jos, Kaduna, Kano, Maiduguri, Owerri, Port

Harcourt, Sokoto, Uyo, Warri and Yola), it has other Western African Countries destinations (Cotonou, Accra, Kotoka, Freetown and Johannesburg). The airline also served distant intercontinental routes like; London Heathrow Airport in the United Kingdom and New York JFK airport in the United State America.

Methodology

This study adopted descriptive survey approach, the need assessment method was used to select three hub Airport (out of 31 airports) in the country based on domestic and international traffic handled. The airports are: Murtala Muhammed International Airport Lagos, Nnamdi Azikiwe International Airport, Abuja and Mallam Aminu Kano International Airport Kano. Furthermore, five airlines (Air Peace, Arik Air, Medview Airline, Max Airline and Aero Contractors) which operate domestic and international flight on the hub airports were purposely selected from nine local airlines in the Country. Adapted Cochran formulae by Younas et' al, (2019) was used to determine the sample size, a total of three hundred and eighty-four questionnaires was administered through a systematic random technique. The sample size was arrived at through the following step:

$$n = \frac{t^2 PQ}{d^2} \left/ \frac{(1 + \frac{t^2 PQ}{d^2} - 1)}{N} \right.$$

Where: n=required sample size,
 $t^2 = 3.8416$ (table value of chi square for 1 degree freedom at 5% sig. Level) $p=0.50$,
 (maximum assumed sample size)
 $Q=1-P$,
 $d^2=0.05$ (desired level of precision) and
 N = populationsize.

Using this forecasting formulae:

$$P_o = P_i \left(1 + \frac{r}{100} \right)^n$$

Where: P_o = projected passenger traffic,
 P_i = initial passenger traffic,
 r = annual passenger change in %, and
 n = number of years.

The projected airport traffic and number of questionnaire allotted to each airport and the number of questionnaire allotted to airlines at each airport respectively were determined as presented in table 1 and 2 below.

Table 1: Projected Airport Traffic and No. of Questionnaire allotted to each Airport

SN	Names of Airport	Airport Passenger Traffic (2018)	Growth rate (%)	Projected Airport Passenger Traffic (2020) –	Names of Airlines	Airline Passenger Traffic (2018)	% Change	Projected Airline Passenger Traffic (2020)	No of question. Attached to Airport
1.	MMIA	6,406,888	4.9	7,395,603	Arik Air	2,572,097	-12.88	1,952,194	213
2.	MAKI A	463,650	9.1	602,094	Aero Contr.	558,022	-31.19	264,240	18
3.	NAIAB	3,226,215	18.14	5,319,664	Medview Air	366,605	21.02	536,930	153
4.	-				Air Peace	4,203,341	48.8	9,323,071	
5	-				Max Air	311,923	3.19	332,141	
Total		7,193,153		13,317,361		8,011,988		12,408,576	384

Sources: Adapted from NBS (2018)Record

Table 2: Numbers of Questionnaires administered to Airline Passengers at the Airports

Airports	MMIA, Lagos	MAKIA, Kano	NAIA, Abuja	Total
Airlines				
1. Arik	34	2	24	60
2. Aero	6	1	3	10
3. Medview	9	1	7	17
4. Air Peace	160	13	114	287
5. Max Air	4	1	5	10
Total	213	18	153	384

Source: Authors' Computation (2020)

The questionnaire comprises of five point Likert scale questions were administered to the respondent to respond as appropriate. Passenger service perception ratings are interpreted as: 1 (not satisfactory), 2 (less satisfactory), 3 (neutral), 4 (satisfactory) and 5 (very satisfactory). While passenger service expectation are indicated as: 1 (not important), 2 (less important), 3 (neutral), 4 (important)

and 5 (very important).The Cronbach Alpha method was used to test for reliability of the instrument, the result shows that the questionnaire has high internal reliability ranging from 68% to 96%.270 representing about 70% out of the 384 copies questionnaire administered were successfully filled and retried.

The data were analysed with a combination of descriptive (tables of percentage, charts, mean and standard deviation) and inferential statistics (Pearson product moment correlation) on the Statistical Package for the Social Science (SPSS), version 21. The

resulting mean scores were interpreted relative to the definition of the true lower and upper limit of numbers shown in Table 3, the lower the mean value recorded for a given question, the lower the strength attached to such variable.

Table 3: Decision rule for interpreting the mean score

S/N	Response Mode	Rate	Reg/Limit	Decision
1.	Strongly Agree	4	3.50 – 4.99	Strongly Agree
2.	Agree	3	2.50 – 3.49	Agree
3.	Disagree	2	1.50 – 2.49	Disagree
4.	Strongly Disagree	1	0.50 – 1.49	Strongly Disagree

Source: Authors Computation (2020)

The Pearson correlation coefficient (PCC), also referred to as Pearson's r , is a statistics that measures linear correlation between two variables X and Y . It has a value between +1 and -1, where 1 is total positive linear correlation, 0 is no linear correlation, and -1 is total negative linear correlation. The decision on the testing of the hypotheses was based on a comparison of the significant value with the significance level ($p < 0.05$). That is, where the significant value is less than ($p < 0.05$), the null hypothesis is rejected and the alternate hypothesis accepted.

Discussion of Results

Airline Passengers Socioeconomic Characteristics

Four socio-economic characteristics of the airline passengers (gender, age, educational qualifications and income level) in Nigeria's hub airport were investigated, the passenger gender reported in figure 1 shows that majority of the respondents were males (81%), while 19% were females. This suggest that males are frequent fliers in Nigeria's hub airport.

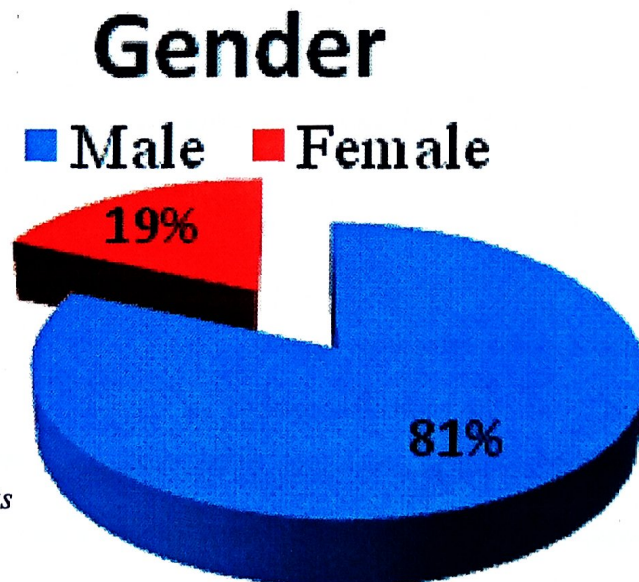


Figure 1: Gender of Respondents
Sources: Authors Survey (2020)

The airline age distribution shown in figure 2 was investigated under five class range, majority of airline passengers in Nigeria's hub airports lies within the active age group 26-59

years as they account for about 90%. The reason for this high mobility may be due to: social, economic and educational reasons.

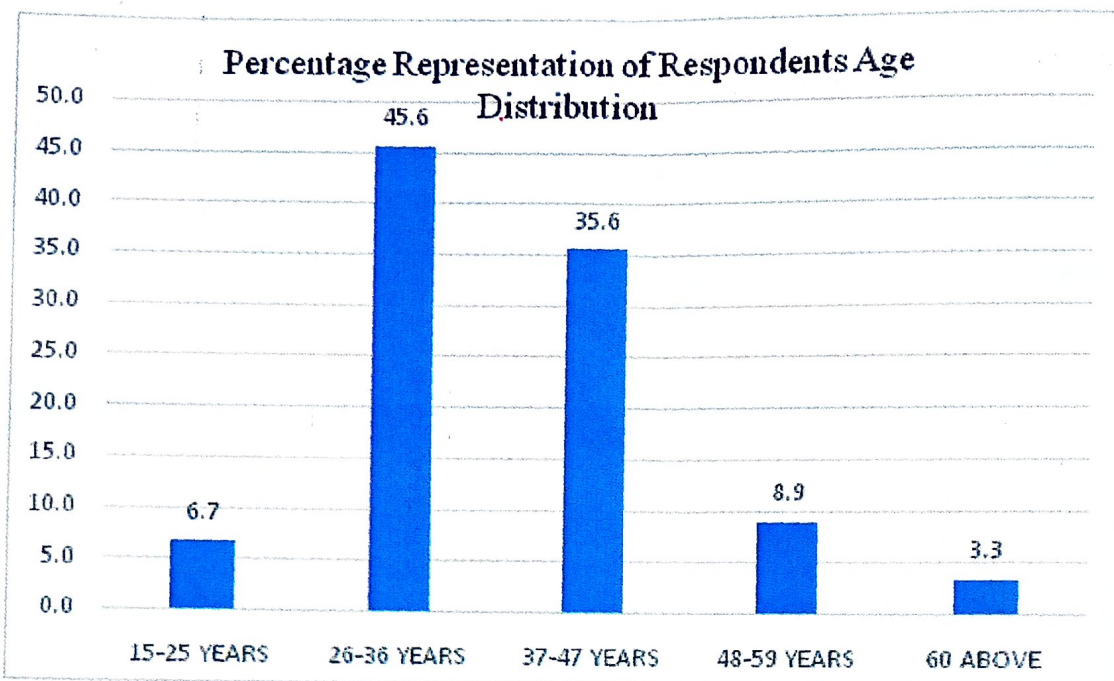


Figure 2: Age Distribution of Respondent

Sources: Authors Computation (2020)

The marital status was investigated on three types (married, single or divorced), the result as presented in table 4 below indicate that,

majority (78%) are married, while about one-fifth (20.4%) are singles.

Table 4: Respondents Marital Status

Marital Status	Frequency	Percent
Single	55	20.4
Married	211	78.1
Divorce	4	1.5
Total	270	100

Sources: Authors Survey (2020)

On the educational Qualification of respondents presented in table 5, it can be seen that majority (41%) of airline passengers in hub airports of Nigeria were educated up to

bachelor degree level. It can be inferred that airline passengers in hub airport of Nigeria are educated.

Table 5: Educational Qualification of Respondents

Educational Qualification	Frequency	Percentage
No formal Education	14	5
Primary Level	21	8
Secondary Level	37	14
OND/NCE	49	18
First Degree Level	112	41
Above First Degree	37	14
Total	270	100

Sources: Authors Computation (2020)

The average monthly income of the airline passengers was investigated under four bracket as shown in table 6 below. As observed, majority of the respondents (48%) had average monthly income of N300, 001

above, followed by income group between N200,001-N300,000 and N100,001-N200,000 accounting for 22% each respectively. This suggest that hub airline passengers in Nigeria are high income earners.

Table 6: Respondent Income Bracket

Monthly Income Bracket	Frequency	Percent
N10,000-N100,000	21	8
N100,001-N200,000	60	22
N200,000-N300,000	60	22
N300,001 and above	129	48
Total	270	100

Sources: Authors Computation (2020)

The nature of flights undertaken by airline passenger presented in table 7 is investigated

and reported under three categories: local, international and both.

Table 7: Nature of Flight

Nature of Flight	Frequency	Percent
Domestic	137	51
International	81	30
Both	52	19
Total	270	100

Sources: Author' Computation (2020)

As observed, majority (51%) of airline passenger are embarking domestic flights, while (30%) make international flight and (19%). This implies that most passenger in hub airlines make more domestic flights than international.

Airline Service Related Factors Influencing Passenger Choice

Table 8 below airline service attributes determining airline choice, the relative degree of importance attached to the respective airline service attributes by the passenger is indicated by its mean value.

Table 8: Service Attributes Determining Airline Choice

Service Attributes	Mean (M)	Standard Deviation (STD)
Cleanliness of Seats	3.8852	.91951
Aircrafts Seats	3.8852	.90730
Cleanliness of Aircraft Toilets	3.8407	.87966
Looks of Aircrafts	3.7815	.90045
Looks of Airline Hostels	3.6444	.96378
Adherence to Arrival and Departure Time	4.5778	.99698
Flight Cancellation and Delay	4.62963	.581509
Fare Price Offered	4.4667	.68765
Performing the Service Right	4.4259	.65105
Staffs Speaks Nice to Customers	4.3704	.68158
Handling of Passenger Luggage's Properly	4.4037	.68167
Compensating Passengers for Loss	4.1667	.77962
Aircraft Provided Meets Customers Demand	4.2296	.69988
Airline Safety	4.6444	.52402
Airlines Security	4.6889	.50963
Inflight Technological Skills	4.6074	.59235
Staff knowledge to answer question	4.7883	.47636
Handling of Complains	4.3741	.69843
Airline Staff Willingness to Help	4.2815	.72298
Providing Rights Service	4.3370	.67985

Sources: Authors' Computation (2020)

It can be observed that, greater importance is attached by airline passengers in the three hub airport to six service elements based the result of the mean score, the service elements are: staff knowledge to answer passenger's question (M=4.7883), airlines security (M= 4.6889), airline safety (M= 4.6444), flight cancellation and delay (M= 4.62963), in-flight technological skills (M=4.6074), and adherence to arrival and departure time (M= 4.5778). The six service elements is likely to influence their choice of a specific airline. Furthermore, service elements like: Fare price offered (M= 4.4667), performing the service right (M= 4.4259), handling of passenger luggage's properly (M= 4.4037), handling of complains (M=4.3741, staffs speaks nice to customers (M= 4.3704), knowledge of takeoffs by staffs (M= 4.3556), compensating

passengers for baggage/luggage losses (M= 4.1667), providing rights service (M= 4.3370), willingness to help (M= 4.2815), aircraft provided meets customers demand (M= 4.2296) are also given significant consideration by passenger in the choice of airline.

Test of Hypothesis

Table 10 below present the correlation result of airline passenger choice and the six most important service attributes(safety, security, adherence to departure and arrival time, flight cancellation and delays, in-flight technological skills and staff knowledge), this was used to test the hypothesis which states that, there is no statistical significance relationship between airline passenger's choice and airline service attributes.

Table 10: Correlation Result of Passenger Choice and Service Attributes

		Passenger's Choice	Safety	Security	Adherence to Arrival & Departure Time	Flight Cancellations and Delays	In-flight Technological Skills	Staff Knowledge
Passenger's Choice	Pearson Correlation	1	-.166**	-.186**	-.203**	-.229**	.034	.057
	Sig. (2-tailed)		.006	.002	.001	.000	.583	.347
	N	270	270	270	270	270	270	270
Safety	Pearson Correlation	-.166**	1	.851**	.686**	.663**	.255**	.298**
	Sig. (2-tailed)	.006		.000	.000	.000	.000	.000
	N	270	270	270	270	270	270	270
Security	Pearson Correlation	-.186**	.851**	1	.825**	.783**	.263**	.337**
	Sig. (2-tailed)	.002	.000		.000	.000	.000	.000
	N	270	270	270	270	270	270	270
Departure & Arrival Time Adherence	Pearson Correlation	-.203**	.686**	.825**	1	.887**	.297**	.364**
	Sig. (2-tailed)	.001	.000	.000		.000	.000	.000
	N	270	270	270	270	270	270	270
Flight Cancellation & Delays	Pearson Correlation	-.229**	.663**	.783**	.887**	1	.249**	.303**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	270	270	270	270	270	270	270
In-Flight Technological Skill	Pearson Correlation	.034	.255**	.263**	.297**	.249**	1	.683**
	Sig. (2-tailed)	.583	.000	.000	.000	.000		.000
	N	270	270	270	270	270	270	270
Staff knowledge	Pearson Correlation	.057	.298**	.337**	.364**	.303**	.683**	1
	Sig. (2-tailed)	.347	.000	.000	.000	.000	.000	
	N	270	270	270	270	270	270	270

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' Computation (2019)

From the table above, it can be deduced that there is a statistical significance relationship between passengers' choice and importance attached to four of the six of the key service attributes investigated. The attributes are: (airline safety (p-value=0.006), airline security (p-value= 0.002), adherence to aircraft arrival and departure time (p-value=.001) and Flight Cancellations and Delays (p-value= 0.000). because the p-values for the four is less than 0.05. Therefore, the null hypothesis is rejected and the alternate hypothesis accepted. On the other hand, there is a significant statistical relationship between airline passenger choice and two of the six service elements viz; In-flight technological skills (p-value= 0.583) and airline staffs knowledge to answer passenger's questions (p-

vale= 0.347), in this case the null hypothesis is accepted because the p-value for the two service attributes is greater than 0.05. These findings agrees with the work of Liou et'al (2007), which shows that passenger attached more value to airline safety and attributed more critical factor of service quality to it. Furthermore, the result of Oyewole (2001) work on the influence of demographic variables on customer satisfaction with services in the air travel industry, indicated that; occupation, marital status, gender, and education level of passenger exert significant influences on customer satisfaction with airline services, while age and household income had no apparent influence on satisfaction.

Conclusion

The study assess the determinant of airline choice in hub airports of Nigeria, the result shows that six service attributes (i.e. airline security, safety, aircraft arrival and departure time, in-flight technological skills, knowledge of the staffs to answer customers' questions, aircraft arrival and departure time and flight cancellation and delay) are the major service attributes influencing airline passengers choice of airline carriers. It is therefore recommended that airline operators should progressively and continuously improve on those key service elements so that their current fliers will not only be retained, but potential passengers who are not currently within the dragnet of the airline operators could be captured.

Reference

- Akpoghomeh, O.S. (1988). Air Choice of Air Transport In Nigeria (*Unpublished M. Sc. Thesis, Department of Geography, University of Ibadan*), pp. 124–201.
- Akpoyomare, O. B., Kunle-Adeosun, L. P., & Ganiyu, R. A. (2016). Airline Service Quality Dimensions and Customer Loyalty: Empirical Evidence from Air Passengers' in Lagos State. *Czech Journal of Tourism*, 5(2), 155–171. DOI: 10.1515/cjot-2016-0009.
- Chikwendu, D.U, Ejem. E. & Ezenwa, A. (2012). Evaluation of service quality of Nigerian airline using servqual model. *Journal of Hospitality Management and Tourism Vol. 3(6)*, pp. 117-125, December, 2012 Available online <http://academicjournals.org/JHMT> DOI: 10.5897/JHMT12.019 ISSN 2141-6575 ©2012 Academic Journals.
- Clemes, M.; Gan, C.; Ren, M. (2011). Synthesizing the effect of service quality, value, and customer satisfaction on behavioural intentions in the motel industry: an empirical analysis, *Journal of Hospitality & Tourism Research* 35 (4) : 530 – 568 .
- <https://doi.org/10.1177/1096348010382239>
- Geraldine, U., & Chikwendu, D. U. (2013). Effects of airline service quality on airline image and passengers' loyalty: Findings from Arik Air Nigeria Passengers. *Journal of Hospitality and Management Tourism*, 4(2), 19–28. DOI: 10.5897/JHMT2013.0089.
- Liou, J.J.M., Tzeng, G.H. & Chang, A.C. (2007). Airline Safety Measurement Using a Hybrid Model. *Journal of Air Transport Management* 13(4):243-249. DOI: 10.1016/j.jairtraman.2007.04.008.
- Nwaogbe, O.R; Abraham. P; Balogun, A.O; Ikeogu, C.C; Omoke. V. (2017). Assessment of Airline Service Quality in a Category One Nation: Focus on Mallam Aminu Kano International Airport. *International Journal of Aviation, Aeronautics, and Aerospace*, 4(1). <https://doi.org/10.15394/ijaaa.2017.1157>
- Oyewole, P. (2001). Consumer's socio-demographic characteristics and satisfaction with services in the airline industry, *Services marketing quarterly*, 23:2, Pp61-80 http://doi.org/10.1300/j396v23n02_04.
- Smithes, R.M (1973). The changing demand for air transport: The Horth Atlantic case. *J. Transp. Econ. Pol.*, 7: 231–249.
- Stephens, M.S. (2008). The Structure of Air Transport in Nigeria. *Unpublished Ph.D. Dissertation. Department of Transport Management Technology, Federal University of Technology, Owerri Nigeria.*
- Tiernan, S. Rhodes, D.L. and Waguespack, J, B. (2008). Airline Service Quality: Exploratory analysis of consumer perceptions and operational performance in the USA and EU, *Managing Service Quality Vol. 18 (3)*, PP. 212-224.
- Tsaur, S., Chang, T. & Yen, C. (2002). 'The evaluation of airline service quality by

- fuzzy MCDM', *Tourism Management*, 23(2): 107–115. [Online] Available at: [http://dx.doi.org/10.1016/S0261-5177\(01\)00050-4](http://dx.doi.org/10.1016/S0261-5177(01)00050-4). Accessed: 8 July 2011.
- Ukpere, W.I., Stephens, M.S., Ikeogu, C.C., Ibe, C.C. & Akpan, E.O.P. (2012), Determinants of airline choice-making: The Nigerian perspective, *African Journal of Business Management* 6(15), p. 5442-5455 <http://www.academicjournals.org/AJBM>. Doi: 10.5897/AJBM11.2606. ISSN 1993-8233 @20212 Academic Journal
- Wanke, P., Barros, C. P., & Nwaogbe, O. R. (2016). Assessing productive efficiency in Nigerian airports using Fuzzy-DEA, *Transport Policy*, 49, 9–19. doi: <http://dx.doi.org/10.1016/j.tranpol.2016.03.012>.
- Younas, M. Awan, I, Benbernou, S. (2019) eds: Big Data Innovations and Applications, Proceeding of 5th international conference, Innovate-Data 2019, Istanbul Turkey



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Notes For Contributors

The Journal of Contemporary Urbanology is dedicated to publishing research findings and innovative ideas dealing with urban problems. It is housed in the Department of Urban and Regional Planning at Benue State University, Makurdi, Nigeria, but welcomes contribution from all researchers concerned about the city. The Journal is Published twice a year.

You are invited to contribute articles in: either or two areas: empirical research into urban problems confronting cities from researchers in urban fields including but not limited to architecture, sociology, geography, economics, politics, archaeology, education, engineering as well as urban and regional planning.

Guidelines for Contributors

1. Articles submitted for consideration must not have been published or under consideration for publication elsewhere.
2. Articles must reach the editor at least three months before the date of publication.
3. Articles must be written in good clear English.
4. The title, name of author(s), address, and e-mail should be submitted on a separate cover page
5. An abstract of not more than 200 words should be submitted on a separate page along with keywords.
6. Articles should be formatted A4, double line spaced with only the left margin justified; font should be Time New Roman set at 12 points, minimum 1 inch margin all round.
7. Articles should normally be 10 pages long including tables, diagrams and references.



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