




# Determinants of Airline Selection at Nnamdi Azikwe International Airport, Abuja-Nigeria- A Researchers' Perspective

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**Abstract.** In 2016 the contribution of the air transport industry to the world economy is about USD \$7.6 trillion, this accounts for over 10% of global gross domestic product. It is projected that the value of the overall travel industry will grow at an annual compound rate of 3.9% reaching USD \$11.5 trillion between 2018–2017. This will represent more than 11% of global GDP. At the continental level, aviation sector contributes about USD \$10 billion to the African economy. Furthermore, about 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. Arising from these, the study examines the factors that determine passenger's airline selection decision taking at the Nnamdi Azikiwe International Airport, Abuja-Nigeria. The methodology of study involved structured questionnaire in which data was collected on passengers' attributes suggested by Ajzen theory of planned behavior and airline service qualities. Descriptive statistics, ANOVA and regression method were used in data analysis. Result shows that attitude, customer satisfaction scale and airline service reliability with mean score of: 4.42, 4.16, 4.13 respectively were the most significant variables influencing passengers' choice of airlines. The study recommends improvement of airline operation in the critical areas of service quality, reliability and strong public image to enhance current customer attraction and retention.

**Keywords:** Airline - Fare - Passengers - Ticketing and service qualities

## 1 Introduction

The Airline industry plays a major role in economic development of countries through its ability to open-up local and foreign investments. In 2016 the contribution of the air transport industry to the world economy is about USD \$7.6 trillion, this accounts

for over 10% of global gross domestic product. It is projected that the value of the overall travel industry will grow at an annual compound rate of 3.9% reaching USD \$11.5 trillion between 2010–2017. This will represent more than 11% of global GDP. At the continental level, aviation sector contributes about USD \$10 billion to the African economy. Over 7000 airline operators with over 73,000 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 traveler. The demand of an airline service affects its revenue, through service patronage (Chikwendu et al. 2012). Passenger loyalty is best achieved when users are happy with the service offered by the airline. To this extent, airline service quality must be tailored towards better user satisfaction on the basis of service offered. Wanke et al. (2016), suggested that, identifying the gaps between service expectation and the actual service provided by any organization is what determines customer satisfaction is determined.

Nwaogbe et al. (2017) study on airline service quality at category 'one' airport in Kano, showed that based on comfort, affordability and service reliability indices, airline passengers are satisfied with the overall service provide by Arik Airline, Aero Contractors and Azman Air. Akpoyomare et al. (2016) study centered on domestic carriers service quality and passenger loyalty in Murtala Muhammed International Airport (MMIA), Lagos, the result shows a positive relationship between the service quality dimensions of customers' satisfaction and customer's loyalty. Okeudo and Chikwendu (2013) study also revealed that service attributes influence airlines corporate image and passenger loyalty in MMIA Lagos. 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. It is against this backdrop that this study seeks to assess the factors that determine choice of airlines by passengers at the Nnamdi Azikwe International Airport, Abuja. The study further investigated the influence of airline ticket pricing, safety, and service quality on airline choice in the study area. Three alternate hypotheses were formulated are, these are, there is no:

H1: Significant relationship between ticket price and airline selection

H1: Significant relationship between service quality and airline selection

H1: Significant relationship between safety and airline selection

## 2 Theoretical Framework

### 2.1 Theory of Planned Behaviour

Theory of planned behaviour states that intention toward attitude, subject norms, and perceived behavioural control, together shape an individual's behavioural intentions and behaviours. This theory links one's beliefs with behaviour, the theory which was proposed by Ajzen (1991) included perceived behavioural control to improve the predictive power of the theory of reasoned action that was earlier advanced by Ajzen and Fishbein (1975). The theory of planned behaviour suggests that people are much more likely to behave in certain way if they feel that they can exhibit them successfully. In other words,

the more favourable the attitude toward behaviour and the subjective norm, the greater will be the perceived behavioural control and the stronger will be the person's intention to undertake the behaviour.

Put simply, behavioural intention as envisaged by the theory of planned behaviour can be represented mathematically as:

$$BI = w_A A + w_{SN} SN + w_{PBC} PBC$$

The three factors being proportional to their underlying beliefs:

Where:

*BI*: Behavioural Intension

*A*: Attitude towards bahviour

*b*: The strength of each belief toward an outcome or an attribute

*e*: Evaluation of the outcome or attributes

*SN*: Subjective norm

*n*: The strength of each normative belief of each referent

*m*: The motivation to comply with the referent

*PBC*: Perceived Behaviour Control

*c*: The strength of each control belief

*P*: The perceived power of the control factor

*w* = Empirically derived weight/co-efficient

To the extent that it is an accurate reflection of actual behavioural control, perceived behavioural control can together with intention be used to predict behaviour.

([https://en.wikipedia.org/wiki/Theory\\_of\\_planned\\_behavior](https://en.wikipedia.org/wiki/Theory_of_planned_behavior)).

$$B = w_{BI} BI + w_{PBC} PBC \quad \text{Where}$$

*B*: Behaviour

*BI*: Behavioural intension

*PBC*: Perceived Behavioural Control

*c*: the strength of each control belief

*p*: the perceived power of the control factor

*w*: empirically derived weight/coefficient.

### 3 Review on Airline Service Quality, Customer Behavior and Decision Criteria

Khan and Khan (2014), studied customer satisfaction in airline industry in Pakistan, the result shows that airlines offering better service to customers has higher patronage than carriers with less service satisfaction. Simsek and Demisbag (2017), airline modelled service quality, customer satisfaction and behavioural goals in Turkey, utilizing Structural Equation Model (SEM). The result indicates, dimension image has a strong significant perceived quality service by customer and in addition, staffs word of mouth

was identified to have a positive importance on customer satisfaction, thereby enabling customers' loyalty.

Curtis et al. (2012) investigated Customer's satisfaction with airline service quality in US; aimed at examining the flight frequency issues and the difference in level of satisfaction between frequent and non-frequent flyers, their studies revealed that the more the level of service satisfaction with overall air carrier's quality and selected features decreased, the less air travelers flies. Adeola and Adebiyi (2014) study examined quality perceived value and customer loyalty as factors influencing the choice of airline in Nigeria, the result shows that airline passenger income, social state of road infrastructure and insecurity accounted for the sudden rise in air transport travelers. Rahim (2016) looked at customer loyalty and perceived service quality in Nigerian airline industry. The result indicates that perceived service quality is positively correlated to both customer's loyalty and satisfactions. Okeudo and Chikwendu (2013), studied the effects of service quality on airline image and passengers' loyalty using Arik airline as a case study, the result showed a positive association between airline service quality variables, image and customers repeated patronage.

#### 4 Methodology

Descriptive survey research was used to investigate and report passengers and airline attributes determining the choice of airline. Parameters that control airline passengers buying behaviours as enunciated in the Adzen theory of planned behavior as well as other airline attributes which influences passengers buying decisions were used for the investigation. The study population consists of all passengers (domestic and international) of the selected airlines (Air Peace, Medview Airline, Aero Contractors, Max Air and Arik Air) which operate at the Nnamdi Azikiwe International Airport (NAIA), Abuja. The population of the study comprise of 700 airline passengers in the airport, each of the airlines was purposively administered with forty (40) sets of questionnaires. A combination of stratified and simple random techniques was used in drawing the target population from both domestic and international passengers of the airlines of interest. 176 questionnaires representing 88% of the sampled population was successfully filled, retrieved, and used for the analysis. Descriptive statistics combined with multiple regression in SPSS version 21 were used for data analysis. The three hypotheses were tested using ANOVA at the significant level of 0.05.

#### 5 Results and Discussion of Findings

Majority of the airline passengers are male, this follows the norms in African society that male being mostly the bread winners of families is likely to be more mobile than female. The results show that respondents within the age bracket of 21–60 years are the most active users of the airline services and as such, accounts for about 86% of the airline passengers in the study area. This is expected as they constitute the most active ages and as such will be more mobile for business, education and leisure purposes. Majority (about 81%) of the passengers have first degree and above, implying that air transport being an elite means of transportation will consist mostly of educated class. High income



Table 1. Respondents socio-economic characteristics

S/N	Variables		Frequency	Percentage
1	Gender	Male	99	56
		Female	77	44
2	Age Groups	0-20 Years	19	11
		21-30 Years	49	28
		31-40 Years	56	32
		41-50 Years	31	18
		51-60 Years	15	08
		>60 Years	06	03
3	Educational Level	< Bachelor	33	19
		Bachelors	83	47
		Master	41	23
		> Masters	19	19
4	Income Brackets	< ₦30,000	24	14
		₦30,001-₦50,000	19	11
		₦50,001-₦70,000	23	13
		₦70,001-₦100,000	31	17
		₦100,001-₦120,000	42	24
		>₦120,000	37	21
5	Occupation	Student	39	22
		Private Company	31	18
		Government Employees	58	33
		Entrepreneur	29	16
		Retiree	11	06
		Unemployed	08	05
6	Frequency of Travels	First time	26	15
		Once yearly	30	17
		Less than once a year	18	10
		2-3 time per year	50	28
		Above 3 times per year	52	30
7	Flight Destination	Within Nigeria	96	55
		Within Africa	55	31
		Outside Africa	25	14

(continued)

Table 1. (continued)

8	Airline Information Channel	Search Engines	15	9
		Social Media	26	15
		Airlines Websites	29	16
		Travel Agencies	55	31
		Family and Friends	37	21
		TV Adverts	09	5
		Travel Magazines	05	5
9	Ticket Purchasing Channel	At airport	58	33
		Airline website	48	26
		Airline offices	21	12
		Travel agencies	43	24
		Airline call centres	9	5
10	Purpose of travel	Business	59	34
		Leisure/vacation	29	16
		Seminar/meetings	32	18
		Education	16	9
		Visitation	14	8
		Others (Medicals)	26	15

earners (N100, 001 above) accounted for 43% of the airline passengers, while 81% of airline passengers in NAIA, Abuja are educated above Bachelor's degree level, while majority (55%) undertake domestic flights, whose purpose is majority for business. The travel agents, families and friends as well as airline websites remains the major channels of airline information in the study area as they accounted for 31%, 21%, and 16% respectively. There are different avenues from which airlines tickets can be purchased in the study area, but the airline offices at the airport, airlines websites and travel agents are mostly used as they jointly accounted 83% of the distribution. The implication is that airline passengers in NAIA, Abuja are adopting virtual online approaches to access airline services because of the numerous advantages it offers (Table 1).

The mean score of airline choice determinants in the study area as presented in Table 2 shows that the Attitude scale has the highest mean score ( $M = 4.42$ ), implying that attitude scale is the major factor which determines the selection of airline by passengers. This is followed by Airline reliability ( $M = 4.13$ ), customer satisfaction ( $M = 4.16$ ), airline convenient scale ( $M = 4.10$ ), airline safety ( $M = 4.10$ ) and airline reputation scale ( $M = 4.08$ ) all have significant influence on airline selection in that order in the study area. The Perceived Behavioural scale with a mean score of 4.00, price scale and service quality scales with mean score of 3.68 and 3.84 respectively will also to a high degree influence airline selection in NAIA, Abuja.

**Table 2.** Determinants of airline choice

Factors	Average mean	Rank
Attitude scales	4.42	1
Subjective norm scale	3.41	10
Perceived behaviour control scale	4.00	7
Price scale	3.68	9
Airline reliability scale	4.13	2
Airline convenience scale	4.10	4
Airline service quality	3.84	8
Airline reputation scale	4.08	6
Airline safety scale	4.10	4
Frequent flyer programme	3.23	11
Customer satisfaction scale	4.16	3
Buying intention scale	3.17	12
Buying behaviour	2.91	13

Source: Authors Computation (2019)

## 6 Test of Hypothesis

The ANOVA result was used to test the three hypotheses that were earlier formulated.

**Hypotheses One:** There is a significant statistical relationship between ticket price and airline selection.

**Table 3.** Airline ticket price analysis of variance

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	6.793	3	2.264	5.664	.001 <sup>b</sup>
Residual	66.363	166	.400		
<b>Total</b>	<b>73.156</b>	<b>169</b>			

a. Dependent Variable: Airline Selection

b. Predictors: (constant), purchasing ticket from this airline is easy for me, selection of a ticket type is my absolute decision and selection of airline is under my control.

Table 3 above, shows that the F-value is 5.664, degree of freedom is 169 and the calculated p-value is 0.001. The alternative hypothesis is therefore accepted since it is less than the tabulated p-value of 0.05. This finding aligns with the work of Nwaogbe

et al. (2017) which posits that as the price of air tickets continues to drop, more passengers will be willing to travel by air.

**Hypotheses Two:** There is a significant statistical relationship between airline quality of service and airline choice.

**Table 4.** Airline quality of service variance

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	90.121	3	30.040	566.465	.000 <sup>b</sup>
Residual	8.379	158	.053		
<b>Total</b>	<b>98.500</b>	<b>161</b>			

a. Dependent Variable: Airline Choice and b. Predictors: (constant).

Table 4 above shows that the F-value is 566.465, degree of freedom is 161 and the calculated P-value is 0.00. Therefore H1 is accepted, since it is less than the tabulated p-value of 0.05, which means that there is a significant statistical relationship between quality of service and airline choice. Nwaogbe et al. (2013, 2017) states that, quality of service measurement regarding passengers perception of airline services (cleanliness, customer relation and reliability) has positive contribution towards the selection of airline.

**Hypotheses Three:** There is a significant statistical relationship between airline safety and airline selection.

**Table 5.** Airline safety analysis of variance

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	11.581	5	2.316	474.437	.000 <sup>b</sup>
Residual	9.025	166	.054		
<b>Total</b>	<b>20.606</b>	<b>171</b>			

a. Dependent Variable: Airline Selection and b. Predictors (Constant).

From Table 5 above, it be seen that the F-calculated value is 474.437, degree of freedom = 169 and the calculated p-value is 0.00, therefore H1 is accepted since the calculated p-value is lower than the tabulated p-value of 0.05. The implication of the result is that, there is a significant relationship between safety and airline choice in the study area.



## 7 Recommendations and Conclusion

This study has examined the factors which determine airline selection at Nnamdi Azikwe International Airport, Abuja. The factors are: attitude scale, subjective norms and behavioral control parameters like- ticket price, service reliability, convenience, safety, customer satisfaction, buying intention and buying behaviour. In a bid to increase airline service patronage in the study area the following recommendations would suffice:

1. The pricing of Airline tickets should be reasonable and competitive.
2. The quality of service delivery should be improved upon on a sustainable basis based on the major parameters with highest mean score.
3. Airlines operations should strive to follow all laid-down safety procedures and protocols to ensure safety of customers life and properties all times.
4. The airline service offerings should be such that confers maximum value for money to passengers.

In conclusion, air transport industry is a key sector of Nigeria's national economy considering its high potentials for the development of trade, investment, culture and tourism within and among nations. The industry's capacity to facilitate global linkages among worlds' economies cannot be overemphasized especially at this period of recession, economic downturn and low pricing of Nigeria's oil resource.

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