Assessing the Determinants of Choice of Airline among Domestic Air Travelers in Lagos, Nigeria

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Abstract

The patronage or choice of an airline is determined by the airline's ability to offer numerous service qualities to her passengers' satisfaction. Several studies have identified numerous factors determining passengers' choice of airlines. However, there is still a paucity of information on the degree of determinants of these determining factors. This paper, therefore, examines the degree of influence these determinant factors have on domestic air passengers' choice of an airline in Lagos, Nigeria. Primary data were adopted using the structured questionnaire that focused on the demographic profiles of domestic air passengers, ranking of airline service qualities and the determinants of their choice of airline. The primary data were collected through 352 structured questionnaire forms administered by systematic random sampling method to 400 domestic air passengers at both the departure and arrival lounge of the domestic wing of Murtala Muhammed Terminal 2 (MM2) in Lagos. The results revealed that Air Peace and Max Air ranked first and second respectively among the top ten operational airlines in terms of service quality preference. Furthermore, the results of the hypothesis indicated that the passenger airfare and route availability influence domestic passengers' choice of airline. The stepwise multiple regression results further indicated that passenger airfare exerted more influence at 89.2% (F=27889.785, p<0.05). The study will help the airline's marketing unit to identify the airline service quality they need to improve on, and it will help policymakers not only in Nigeria but also all over the sub-continent to think about long-term strategies towards the provision of sustainable airline services.

Introduction

Air transportation is one of the agents and drivers of economic development whose demand is expected to accelerate in the next three decades (Yue & Byrne, 2021). In addition, air transport is an indicator of development as its volume clearly depends on the level of economic activity as well as on the prosperity of the population (Bourguignon & Darpeix, 2016). The demand for air transport in Nigeria has been on a steady increase recently, with a total of 10 million in 2016, 10 million in 2017, growing to 12 million in 2018, 14 million in 2019, and declining to 8 million in 2020 domestic passenger traffic in 2020 due to the Covid-19 pandemic (FAAN, 2020). With the availability of various domestic airlines, passengers now have a wide choice to select airline that suits their preferences. The choice of airline among passenger depends on the quality of service provided by both the airports and airlines. The choice of airline among domestic air passengers and the service quality provided by airlines is intertwined. However, airline service quality has not received much attention in the domestic air travel system in Nigeria unlike the international scheduled flights. In Nigeria's domestic airlines operation, there are numerous problems associated with airline service quality. Some of these problems are lack of schedule integrity, touting, flight cancellation without adequate notice, flight delays, exorbitant airfares, inadequate airport security and lack of in-flight catering among others. Majority of the Nigeria's domestic airlines do not take seriously the issue of quality service provision and this is largely affecting their operations. This could be said to be responsible for the poor performance of some of the airlines, and in some cases, some airlines have stopped operation because of poor service quality, which in turn led to very low patronage and consequently led to poor unsustainable revenue income for their operations. Furthermore, if the airline patronage and service quality is properly ranked in a way that reflects the choice of these airlines by the passengers based on each of the service quality provided, this could help the airlines see the areas where they have done well and vice versa.

Several studies have examined various issues concerning air transportation system. For instance, Jiezhuoma, Bil & Heiets (2021) examined the impact of digital technologies on passengers' in-flight preference. The study observed that more than one-third of the respondents thought in-flight entertainment was an important element when taking flight. However, the study did not include passengers in the domestic flight schedules. In another vein, Sidiq (2019) conducted a study to determine complex factors influencing passengers' satisfaction in Nigeria airports and found that courtesy of staff, availability of staff, effective way finding signs, availability of telecommunications, and cleanliness of restrooms are the most important five factors that determines passenger satisfaction. Adenigbo and Ubogu (2014) analysed the volume of air cargo handled at the major international airports in Nigeria. They found that electronics and computers dominate flows in Lagos, machine parts in Abuja and Port-Harcourt, and textiles in Kano airports. It also revealed that Lagos airport handled its proportionate share of cargo traffic for the years under consideration except in 2007 and 2010. This study however did not consider the spatio-temporal nature of the fluctuations arising in the supply and demand of the goods (cargoes). Ukpere et. al., (2012) examined choice decision making of the Nigerian domestic air transport. Their results showed that sex, age, marital status, income, comfort, on-board services, frequency, crew behaviour, fare and power of monopoly were significant variables and therefore influence the choice of airline by air travellers. However, their study did not examine other important variable such as adherence to flight schedule among others. In the work of Aderamo (2010) assessed the demand for domestic air transport in Nigeria and the factors responsible for it. The level of patronage enjoyed by air transportation is highly dependent on various reasons, which explain the spatio-temporal nature of local air passenger movements. Mukarramah and Sulaimon (2014) examined how service quality, perceived value and customer satisfaction determined airline choice in Nigeria. Their study revealed that the income/social status, poor states of roads as well as the insecurity accounts for the sudden rise in air transport travellers and that service quality, perceive value influences their satisfaction level on the choice of airline.

However, the study failed to include important variables such as airfare differentials, regular flight schedule, and accessibility to the airport, minimum waiting-time, and previous usage of the airport as part of determinants factors in the choice of airlines by passengers.

From the foregoing, the study attempts to fill the gap by identifying other service qualities that could determine the choice of airline. This study is therefore important in filling the identified gap in the literature by examining other important variables such as airfare differentials, regular flight schedule, accessibility to the airport, and previous usage of the airport as part of the factors that determines the choice of airlines among domestic air passengers. Thus, the purpose of this paper is to examine the level of the determinants of airline choice among domestic air passengers in the Nigeria domestic scheduled air transport system. The following specific objectives are to: ascertain the airline service qualities influencing the choice of airline among domestic passengers and rank the airlines based on passengers' assessment of their service quality performance. The study hypothesized that airline attributes (airfare, route availability, baggage handling, comfort, good customer service, safety, security) will significantly determine airline choice among domestic passengers.

Literature review

Air transport is currently confronted by increasing competition and advanced technological innovations, which have improved the nature of air transport operation, particularly by making it available and accessible to many travelers and tourists (Sultan and Simpson 2000). There are several studies (Koech & Macario, 2023; Bauner & Liu, 2022; Garaus & Hudakova, 2022; Munoz & Laniado, 2021; Sidiq et al., 2021; Lin & Zhang, 2021; Mazareanu, 2020; Lee et al., 2019; Bietsch & Egrie, 2018 and Vopola et al., 2012) on choice of airline among air passengers focusing on numerous areas. Some of these studies are reviewed as follows. Koech & Macario (2023); examined the influence of airline brand awareness and perceived quality on travelers' attitudes towards frequent-flyer programs

and airline brand choice. The findings of the study indicate that airline brand awareness and perceived quality influence travelers' attitudes towards frequent flyers programs (FFPs) positively influence airline brand choice. Additionally, the findings further indicate that attitudes towards FFPs have a conditional (moderating) effect on the relationship between airline brand awareness and airline brand choice and between airline brand perceived quality and airline choice. Bauner & Liu (2022) investigated the incumbents' pricing and non-pricing responses to product entry in market with vertical product differentiation using data from international airline markets observed that the reason for the response by connecting incumbents is the opportunity cost of connecting at desirable airports such as airline hubs. However, the study failed to observe significant policy changes by incumbents offering non-stop flights. In another vein, Garaus & Hudakova (2022) measured the impact of the Covid-19 pandemic on tourists' air travel intentions using the health risk and trust in the airline. The study found that air passengers' perception of airlines' health risk and trust influenced air travel intention during the Covid-19 pandemic. Munoz & Laniado (2021) examined the role of travelers' satisfaction and personality traits using airline choice model for international round-trip flights. The study found that passenger satisfaction with each airline service was associated with airlines' utilities. The findings of the study further highlighted the complex ways in which perceptions can influence airline choice and provided insight for targeted policy interventions. One of the major contributions of this work was the inclusion of passenger satisfaction to the set of measurable factors influencing airline choice among air passengers. However, it is pertinent to state that a combination of airline service qualities largely determines if passengers are satisfied with airline services or not, and the outcome defines the airline choice. Lee et al. (2019) analyzed the mode choice behaviour of air transport on the introduction of remotely piloted passenger aircraft by age, gender and travel frequency. The study found that passengers perceived remotely piloted aircraft differently on safety records and in-flight entertainment. The study mainly examined passengers' perception of safety because the passenger aircraft is remotely piloted while other service qualities were not considered in

the study. Sidiq et al. (2021) examine the significant variables that are currently influencing air travellers' preference for domestic airlines in Nigeria. The study found that time, safety, and fare are the most influencing factors determining passenger choice of domestic airlines in Nigeria. However, the study failed to ascertain their degree of influence. Lin & Zhang (2021) investigated air travellers' travel motivation during the Covid-19 pandemic crisis and found that destination image remains the most influential pull factor, while aviation-specific products and services is the least attractive in motivating travels. The findings of this study therefore imply that during pandemic or any crisis the choice of any mode of transport based on service qualities becomes unimportant. In addition, Mazareanu (2020) examined the Nigeria's busiest airports in terms of domestic aircraft movements 2018 and found that the Murtala Muhammed Airport in Lagos was the busiest. This finding could be because Lagos as the commercial capital of Nigeria, the airport in Lagos has more domestic passengers, more airline operators and more air routes compared to other airports.

Ojo (2015) assessed passenger movements in MMIA for the last ten years and the passenger composition today at Murtala Muhammed International Airport, Lagos. The study found that the number of passengers increased by 90.2 % between 2000 and 2008, and dropped by 2.7 % between 2008 and 2009; 87.6 % of the passengers had attained tertiary education; 34.2 % traveled for educational purpose; 50 % of the airlines operated African countries. Fodness and Murray, (2007) conducted an empirical investigation into passengers' expectations of airport service quality. The paper built on the extant literature on service quality to propose an approach for measuring passengers' expectations of airport service quality that can serve as a foundation of a concise and easy-to-administer self-report measure for identifying and managing airport service quality strategies. However, the paper did not consider passengers' expectation of airline service quality. Afolayan et al. (2012) analyzed the variability of passengers and aircrafts movement in Nigeria airports. The study found that the passenger and aircraft variations at domestic airport follow similar pattern of change with slight oscillation. Ladan (2012) conducted an analysis of air transportation in Nigeria. The study

found that air transport in Nigeria suffers from poor reputation for operational efficiency and safety. This is attested by the present state of the industry in the country. Ladan (2012) stated that available statistics and data showed an increase in the use of air transportation in Nigeria, however, this is facing problems, which arise because of factors militating against efficiency of the system. They listed the factors, which include absence of a coherent air transport policy, bad management, decaying facilities, loose security, closure of airports, intermittent air crashes etc. This paper therefore recommends that adequate measures should be taken to ensure efficiency of the system for economic growth and development in Nigeria. Nwaogbe et al. (2013) worked on the impact of the air transport sector showed that air transport sector has contributed immensely to the economic development of Nigeria and the entire globe in two other ways. In another vein, Stephens et al. (2014) carried out a study on the contribution of aviation industry on the Nigerian economy. The study showed that the domestic air transport industry is fast growing when we measure demand for its services. Isaac (2013) examined the role of airport infrastructural development on socio-economic development of Nigeria using a descriptive survey method while Oyesiku et al. (2013) studied the impact of public sector investment in transport on economic growth. Similarly, Akanbi et al. (2013) also assessed the impact of transportation infrastructure improvement on economic growth in Nigeria. Ladan (2012); Ikechukwu and Urael (2012); Oluwakoya and Olufemi (2013) focused on deregulation, liberalization policy and transport infrastructure. Furthermore, Fodness and Murray (2007) developed a theoretical framework that suggested three primary dimensions of quality service. Taylor et al. (2009) worked on the measures and dimensions that reflect multiple perspectives such as passengers, the service providers (i.e., operators), the community and other relevant stakeholders. However, the point of departure for this work is that, the cited works were done in climes outside Nigeria with different social economic and cultural backgrounds. Amba and Danladi (2013) identified some key difficulties in the transportation sector. Afolayan et al. (2012) examined the variation in spatial trend of passengers and aircrafts movement in Nigerian international airports. Afolayan et al (2012) analyzed the trend of

passenger traffic and flights movements in and out of the country for the period of eleven (11) years, starting from 2000 to 2011 without considering domestic passengers. Ukpere et. al. (2012) conducted a study on choice decision-making of the Nigerian domestic air transport industry. The study aimed at determining the factors that influences air travelers' choice of airlines to fly within Nigeria. The study obtained the socio-economic characteristics and the airline attributes that helped influenced the air travellers in making their choice of airlines at the selected airports. The results of the study showed that sex, age, marital status, income, comfort, on-board services, frequency, crew behaviour, fare and power of monopoly were significant variables and therefore influence the choice of airline by air travelers. However, the study did not assess the performance of the available airlines that were operational at the time.

On key decision factors to choose an airline, Chou (2009) evaluated airport service quality in four dimensions: check-in, immigration process, customs inspection and overall, from perceptions of passengers similar to Lee and Kim, (2003) on airport passenger service. The work of Ukpere et al. (2012) examined choice of airline among domestic air passengers and found that sex, age, marital status, income, comfort, on-board services, frequency, crew behaviour, fare and power of monopoly were significant variables and therefore influence the choice of airline among domestic air travelers. In the same vein, Aderamo (2010) assessed the demand for domestic air transport in Nigeria and the factors responsible for it. The finding revealed that Index of Agricultural Production, Index of Manufacturing Production, Gross Domestic Product, Inflationary Rate and Consumer Price Index are important in the explanation of the demand for air transport in Nigeria. In addition, Mukarramah and Sulaimon (2014) examined how service quality, perceived value and customer satisfaction determined airline choice in Nigeria and found that income/social status, poor states of roads as well as the insecurity accounts for the sudden rise in domestic air travel. However, the studies reviewed, focused on diverse issues. Some of the issues focused on air service quality, airport infrastructural development, contribution of air transport to economic growth, and airport passenger service etc.

Those studies on choice of airlines focused on service quality and examined various variables of service quality such as comfort, on-board services, frequency, crew behaviour, fare, safety, and security.

Many other researchers have examined the factors that determine choice of airline carriers. In the literature, a core set of attributes prevail regarding airline choice, most notably; price (Campbell & Vigar-Ellis, 2012; Cho & Dresner, 2018; Unger et al., 2016); frequency of flights (Buaphiban, 2015; Gao & Koo, 2014; Koo, Capenecchia & Williamson, 2018; Cho & Dresner, 2018; Unger et al., 2016); on-time departure (Campbell & Vigar-Ellis, 2012; Koo et al., 2018); convenience of flights (Buaphiban, 2015; Chen & Chao, 2015; Cho & Dresner, 2018); staff courtesy (Cho & Dresner, 2018; Rady 2018; Venkatraman, 2016); airline's reputation (Buaphiban, 2015: Graham & Bansal, 2007); free charges on baggage (Bietsch & Egrie, 2018; Nicolae, Ferguson & Garrow, 2016), airline's safety standard (Campbell & Vigar-Ellis, 2012; Koo et al., 2015); and ease of reservation and online booking (Buaphiban, 2015; Campbell & Vigar-Ellis, 2012).

For the purpose of this study, the following factors (Passenger airfare, route availability, baggage handling, comfort, good customer service, safety and security) were examined. The various airline attributes utilized in this study are discussed in the following paragraphs. The first airline characteristic considered was the passenger airfare. Several studies supported this argument that passenger airfare is one of the major factors in choosing airline see (Camelleri, 2018; Campbell & Vigar-Ellis, 2012; Cho & Dresner, 2018; Unger et al., 2016), the passenger air fare is not the primary driving factor for all kinds of passengers. The passenger's choice is also influenced by their specific individual characteristics such as socioeconomic profiles which are usually not the same (Milioti, Karlaftis, & Akkogiounoglou, 2015; Nenem, Graham & Dennis, 2020). Wang et al. (2014) assert that rich passengers and big organisations/companies there seems to be little regard for cost, which can encourage business travelers to select more expensive tickets. Unger et al. (2016) as well as Johnson, Hess and Matthews (2014) agreed with this statement and add that business passengers display a high

willingness to pay higher fares in return for direct flights, although this is contrary to leisure travellers because price and frequency are often important to them (Buaphiban 2015). Regarding other determinants, flight convenience starts from convenience of online reservations, ease of reservation and online-seat selection. However, in a study by Chen and Chao (2015), they included priority check-in for business travellers and business lounges availability in their definition of the convenience of flights. Rouncivell et al. (2018) opined that either the reason for travel, which could be for business or leisure, might influence the willingness to pay for preferred seat. Another study by Dana and Schmitt (2017), as well as Unger et al. (2016), claimed that the business travelers in the United States (US) chooses the airline and flight based on services, fringe benefits and convenience due to the fact that they do not pay for their own tickets. For many business travelers, free charges on baggage might seem unimportant especially if they plan the same day flight, but free baggage is however an important factor when traveling for business for long periods of time. Law (2017) noted that free baggage is preliminary a sensitive matter for leisure travellers who travel infrequently. However, Nicola et al. (2016) found that airlines prefer to offer free baggage fees to regular business travelers as they are not sensitive to price changes but rather to convenience during their business trips. Several other aspects of service quality influences airline choice. In a study on South African passengers, it was revealed by Fourie & Lubbe (2006) that flight frequency was significantly more important for full carrier passengers than low-cost carrier passengers. This suggests that passengers make a trade-off between frequency and price. According to Douglas (2019), time taken to travel is often viewed as unproductive, with employees preferring the trip to be as quick as possible to improve productivity and punctuality thus become vital for customers who cannot afford to miss important business meetings. At the same time, punctuality of flights is equally important for passengers travelling for holiday as they rely on the punctuality of flights. This was corroborated by the work of Cambell and Vigar-Ellis (2012) that identify punctual or reliable flights as the second most important attribute to respondents when selecting an airline.

Methodology

Study Area

The domestic wing, otherwise known as local wing of the Murtala Mohammed Airport Ikeja was used for the study. The airport was named after Nigeria's former head of State (Late General Murtala Muhammed). The airport has two runway directions namely 018 and 036, both measuring about 3600m/11,842 ft (Nigerian Aeronautical Information Publication (NAIP), 2013). The airport has both international area, which serve domestic and international flights, and the private area that is used for charter flights, and provides flight service both to domestic and international destinations. It is a public airport operated by the Federal Airports Authority of Nigeria and is managed by the Federal Airport Authority of Nigeria (FAAN), a federal Government agency. Fig. 1 shows the location of MMA in Ikeja Lagos while Fig. 2 shows the various destinations of flights from MMA in Lagos. The airport at Ikeja near Lagos was built during World War II. West African Airways Corporation was formed in 1947 and had its main base at Ikeja. De Havilland Doves were initially operated on WAACs Nigerian internal routes and then West African services. (FAAN, 2012) Originally known as Lagos International Airport, it was renamed in 1976 after a former Nigerian military head of state Murtala Muhammed. The international terminal was modeled after Amsterdam Airport Schiphol. The new terminal opened officially on 15 March 1979. It is the main base for most Nigeria's such as Aero contractor, Air Peace, Arik Air, Azman Air, Dana Air, Ibom Air, Max Air, Overland Airways, United Nigeria Air, Green Africa Airways, as well as for several other Nigerian airlines. Murtala Muhammed Airport has separate terminals for international and domestic travelers. The terminals are located about one kilometre from each other. Both terminals share the same runways. This domestic terminal used to be the old Ikeja Airport. International operations moved to the new international airport when it was ready while domestic operations moved to the Ikeja Airport, which became the domestic airport. The MMA includes some facilities that include the headquarters of the

Federal Airports Authority of Nigeria (FAAN). It also houses the head office of the Nigerian Civil

Aviation Authority (NCAA), and the head office of the Accident Investigation Bureau (AIB). The
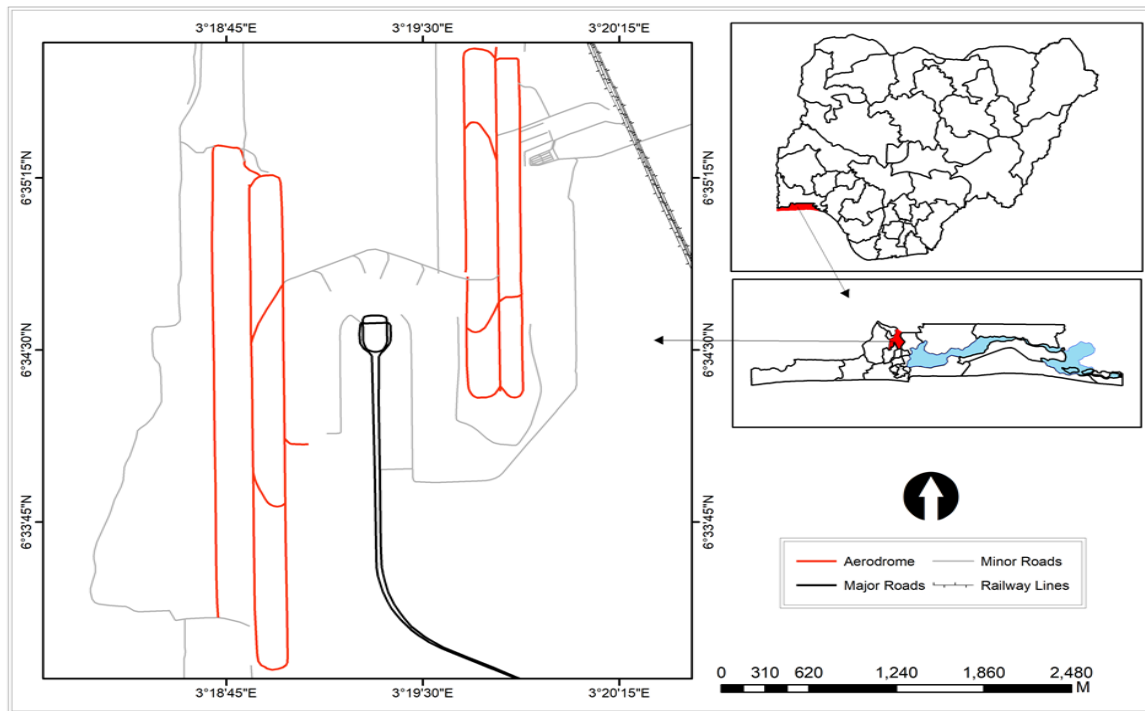
Lagos office of the Nigerian Civil Aviation Authority is located in Aviation House on the grounds

of the airport. Other facilities which included some domestic airlines, these are Arik Air's head office

is in the Arik Air Aviation Center on the grounds of the airport. In addition, Aero Contractors has

its head office in the Private Terminal of the Domestic Wing at Murtala Muhammed International

Airport. Before the Nigeria Airways folded-up, its head office used to be in Airways House on the

airport property.

Fig. 1: Map showing Murtala Muhammed Airport, Ikeja, Lagos, Nigeria.
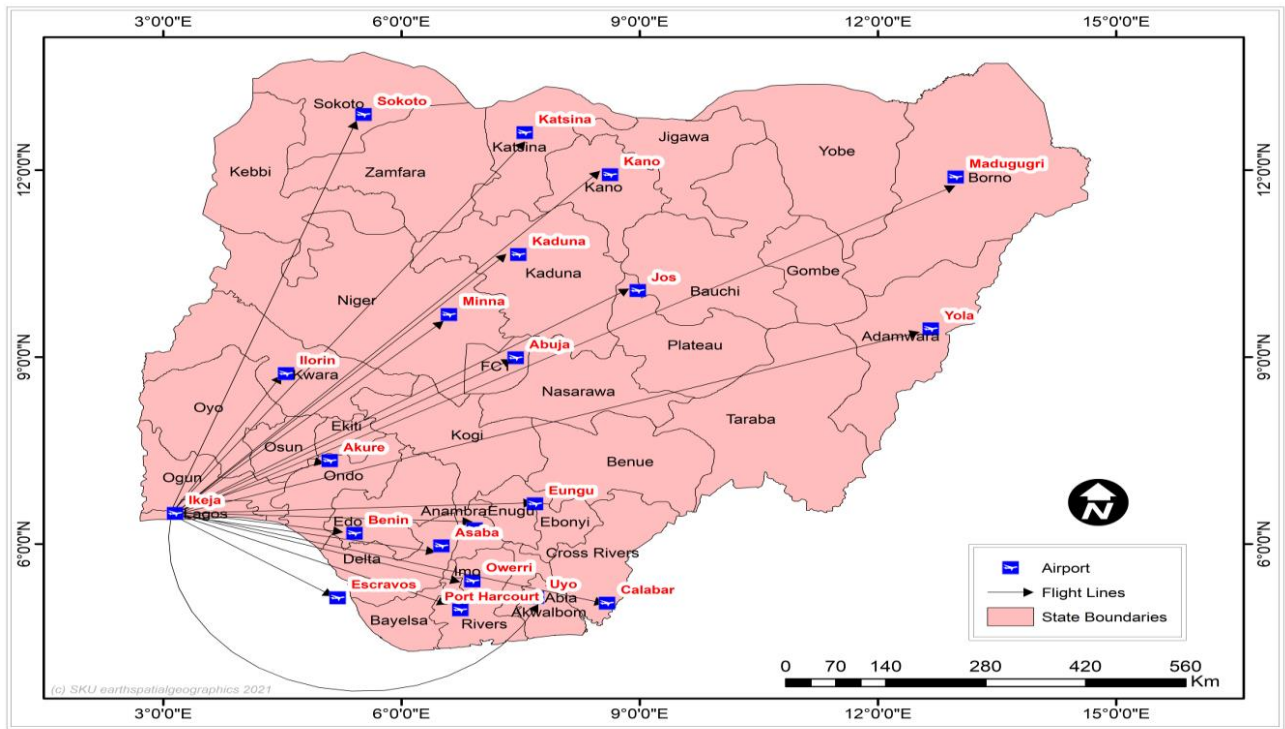   Source Author's Analysis

Fig. 2: Map of Nigeria showing flights originating from Lagos to different parts of the country
Source: Author's analysis

Study Method

The data used in this study were sourced from primary data using structured questionnaire. The

secondary data was sourced from literature in academic articles, journals, books and from Federal

Airport Authority of Nigeria (FAAN) and Nigeria Civil Aviation Authority (NCAA). Some of these

academic materials are referenced in the data analysis to validate results and findings. The Murtala

Muhammed Airport Ikeja, Lagos was chosen for this study because it is the busiest airport in Nigeria

in terms of domestic aircraft traffic in Nigeria in 2018, with 64,898 aircraft movements. In that same

year, 12.79 million people travelled on domestic flights in Nigeria (Mazareanu 2020). The structured

questionnaire used for primary data collection focused on the demographic profile and the

determinants of passengers' choice of airline in the Nigeria domestic scheduled air transport system.

The study targeted passengers aged 18 years and above. The study administered questionnaire on 400 domestic air passengers and 352 questionnaire forms were returned amounting to 88.0% participant rate. The domestic passengers were tracked down at both departure and arrival lounge. At the departure lounge, passengers who are awaiting boarding were approached for questionnaire forms administration. Since most of the passengers were found in the same area, the systematic random sampling was adopted. The systematic random sampling allowed the skipping of one or two respondents when randomly selecting respondents. The sample size was determined using Yamane (1967) sampling techniques after obtaining the annual average number of domestic passengers from FAAN. The Yamane's technique is given as:

$$n = \frac{N}{1+N\,(e)^2}$$

Where, n= sample size, N=sampled population and (e) = significant level or level of precision 0.05^2

Domestic passengers

Murtala Muhammed Airport (Domestic wing): 1+26,400 x 0.0025 = 66.0025

$\qquad$ 26,400 ÷ 66.0025 = 399.984849

$\qquad$ N= 399.98

Approximately, a total of 400 domestic passengers were therefore, sampled in MMA.

The simple statistical frequency analysis was used to determine the factors that explain the passengers' choice of airline. This is because of the main aim of the study, which is to establish the determinants of passengers' airline choice. It was then interpreted using frequency tables and cross tabulations where appropriate. With the help of Statistical Package for Social Sciences (SPSS) version 20, open-ended responses of respondents were collated and interpreted. The hypothesis that that flight ticket price, adherence to flight schedule, air service quality, and safety significantly determines airline choice among domestic passengers in Nigeria was analysed using the stepwise multiple regression analysis at ($p < 0.5$). In order to achieve the second objective, the airlines' service quality

preference among domestic air passenger was measured by ranking the determinants (variables) based on passengers' preferences for the domestic airlines of the airline. This was achieved by scoring each of the determinants for each of the airline on a scale of 1 to 10. The airline with the highest number of preferences is scored ten points and in descending order to the lowest number of preferences scoring one point. The scale 1 to 10 was adopted because there are ten operational domestic airlines now.

Results

This section provides explanations on the extent at which each of the airline service qualities determining the choice of airline among domestic passengers and the ranking of the airlines based on passengers' assessment of airline service quality performance.

Air passenger demographic profile

Table 1 presents information on the income, identification of air travelers and frequency of air travel. The respondents reported monthly incomes of ₦500,000 for 141 (40.3%), between ₦401,000 and ₦500,000 for 59 (16.7%), between ₦300,001 and ₦400,000 for 53 (15.0%) and less than ₦300,000 for 99 (28.0%). The results indicated that the majority of the respondents were air travellers (93.1%), N = 352 and the majority were regular air travellers (52.8%). The first-time travellers constituted about 42.1%.

Table 1: Air passenger demographic profile   N=352

Variables	Item	Frequency	%
Income	Below ₦200,000	35	10.0
	₦200,001-₦300,000	63	18.0
	₦300,001-₦400,000	53	15.0
	₦400,001-₦500,000	59	16.7
	Above ₦500,000	141	40.3
	Total	352	100.0
Travel by air	Yes	352	93.1
	No	26	6.9
	Total	**378**	**100.0**
Frequent air travellers	First timer	18	5.1
	Irregular traveller	148	42.1
	Regular traveller	186	52.8
	Total	**352**	**100.0**

Source: Author's analysis

Determinants of airline choice among domestic passengers

Table 2 discusses those factors that determine passengers' choice of airlines for domestic travels. Those factors identified as determinants for passengers' choice of airline for domestic travels included flight ticket price, adherence to flight schedule, air service quality and safety. The Table showed that 268 (76.1%) passengers admitted that adherence to passenger airfare schedule largely determines their choice of domestic airlines. Although they opined that, almost all the domestic airlines sometimes have trouble in flight schedules but some airlines are notoriously known for not adhering to their flight schedule. Another major determinant identified is regular flight schedule. A total of 266 (75.5%) of the passengers acknowledges that regular flight schedule as one of the determinants. Baggage handling and good customer service are the lowest determinants (54.5% and 54.0%) respectively. In terms of safety, the passengers believed no Nigerian domestic airline is safer than the other is. In addition, in terms of flight ticket price, the difference in the prices of tickets among the airlines is negligible. This is because passengers have opportunity to book ahead at a reduced rate.

Table 2: Determinants of airline choice among domestic passengers N=352

Variables	Item	Frequency	%
Route Availability	Determines my choice of airline	202	57.4
	Does not determine my choice of airline	150	42.6
	Total	352	100.0
Passenger Airfare	Determines my choice of airline	268	76.1
	Does not determine my choice of airline	84	23.9
	Total	350	100.0
Good customer service	Determines my choice of airline	192	54.5
	Does not determine my choice of airline	160	45.5
	Total	352	100.0
Baggage handling	Determines my choice of airline	190	54.0
	Does not determine my choice of airline	162	46.0
	Total	352	100.0
Comfort	Determines my choice of airline	251	71.3
	Does not determine my choice of airline	101	28.7
	Total	352	100.0
Safety	Determines my choice of airline	250	71.1
	Does not determine my choice of airline	102	28.9
	Total	352	100.0
Security	Determines my choice of airline	248	70.5
	Does not determine my choice of airline	104	29.5
	Total	352	100.0

Source: Author's analysis

Ranking of airlines' service quality preference

This section presents the ranking of airlines' preference for service quality among domestic passengers. As shown in Fig. 3, Air Peace ranked highest among domestic airlines in Nigeria as the Airline with better service quality above others. The details as shown in Table 3 indicated that Air Peace is most preferred airline based on route availability, baggage handling, comfort, good service customer and safety. Max Air is next to Air Peace in the airline service quality preference ranking. Max Air scored the maximum point of ten (10) airfare differentials suggesting that passengers preferred Max Air because of the moderate and affordable airfare. In the same vein, both Arik and Dana Air came third; this is flowed by Ibom Air, Aero Contractor, Green Africa Airways, United Nigeria Air, Overland Airways and Azman Air.

Table 3: Airline Service Quality Ranking among Nigerian Domestic Airline

Airline	Route Availability	Airfare differential	Baggage handling	Comfort	Good customer service	Safety	Security	Ranking
Aero contractor	15(5.7%) 6	9(3.4%) 5	8(3.0%) 4	12(4.5%) 5	11(4.2%) 5	7(2.7%) 5	7(2.7%) 6	31(6th)
Air Peace	40(15.2%) 10	21(8.0%) 9	28(10.6%) 10	31(11.7%) 10	34(12.9%) 10	34(12.9%) 10	12(4.5%) 8	67 (1st)
Arik Air	21(8.0%) 8	15(5.7%) 7	24(9.1%) 8	18(6.8%) 7	18(6.8%) 6	6(2.3%) 4	21(8.0%) 10	50 (3rd)
Azman Air	10(3.8%) 4	2(0.8%) 1	3(1.1%) 1	10(3.8%) 3	0(0.0%) 1	8(3.0%) 6	0(0.0%) 1	17 (10th)
Dana Air	15(5.7%) 6	17(6.4%) 8	12(4.5%) 6	15(5.7%) 6	20(7.6%) 8	17(6.4%) 8	12(4.5%) 8	50 (3rd)
Ibom Air	25(9.5%) 9	6(2.3%) 2	12(4.5%) 6	25(9.5%) 9	22(8.3%) 9	19(7.2%) 9	6(2.3%) 5	49 (5th)
Max Air	17(6.4%) 7	25(9.5%) 10	26(9.8%) 9	23(8.7%) 8	20(7.6%) 8	17(6.4%) 8	14(5.3%) 9	59 (2nd)
Overland Airways	3(1.1%) 2	9(3.4%) 5	6(2.3%) 3	6(2.3%) 2	3(1.1%) 2	3(1.1%) 2	3(1.1%) 2	18 (9th)
United Nigeria Air	9(3.4%) 3	9(3.4%) 5	6(2.3%) 3	3(1.1%) 1	6(2.3%) 3	6(2.3%) 4	6(2.3%) 5	24 (8th)
Green Africa Airways	3(1.1%) 2	11(4.2%) 6	14(5.3%) 7	12(4.5%) 5	11(4.2%) 5	0(0.0%) 1	6(2.3%) 5	31 (6th)

Result indicating the degree of determinants of airline choice among domestic passengers

The result in Table 4 on the hypothesis that passenger airfare, route availability, safety, online purchase of passenger ticket, comfort and minimum waiting-time significantly predicts passengers' choice of airport is presented. Table 4 revealed that airfare differential is identified as the principal predictor variable that best explained passengers' choice of airport. Thus, passenger airfare was responsible for 89.2% of passengers' choice of airport. The ANOVA results further revealed that

passenger airfare and route availability have significant influence on passengers' choice of airport. (F = 27789.685, *p*<0.05). The signs of the regression coefficients indicated that passenger airfare differentials and route availability were positively related to passengers' choice of airline, while safety, comfort, online purchase of passenger ticket, comfort and minimum waiting-time were not significantly related to passengers' choice of airline. The negative sign implies that passengers' consideration for safety, comfort, online purchase of passenger ticket, comfort and minimum waiting-time does not lead to increase in passengers' choice of airport, while the positive sign suggests an increase in passengers' choice of airline. However, considering the standardized regression coefficients of the predictors, passenger airfare has the strongest weight in the model followed by route availability. The t-value results indicated that among the six set of predictor variables, passenger airfare exerted significant effect on passengers' choice of airline.

From the analysis, it could be adjudged that passenger airfare is the foremost factors of passengers' choice of airline. This is apparent as this factor has strong weights in the model because passenger airfare is very important to most passengers' choice of airline. This is because passengers will be more considerate on saving more money on every trip and will likely chose the airline with cheaper flight. The equation for estimating passenger's choice of airline is of the form:

$Y = 0.019 + 0.955PAF + 0.081RAV$……. (Equation 1)

Where: Y = is the predicted passengers' choice of airline

PAF = Passenger Airfare

RAV = Route Availability

Table 4: Passengers' choice of airline

Predictor variables	b coef.	Std. Error of b	Multiple R	Level of explanation	Increase in level of explanation	t-value for variables
Passenger Airfare (PAF)	0.955	0.015	0.861	89.2	89.2	44.944*
Route Availability (RAV)	0.081	0.023	0.128	1.9	87.3	3.434*
Intercept: 0.019; F = 27889.785*						

*Significant at 0.01 significance level; *Significant at 0.05 significance level; N=352
Source: Author's Analysis

This study revealed that passenger airfare and route availability are the most important variables influencing domestic air passenger's preference for a particular airline in the Nigerian domestic scheduled air transport system. This result is in line with the results obtained in the findings of Garaus & Hudakova (2022); Munoz & Laniado (2021); Sidiq et al. (2021); Ukpere et al. (2012), Ayantoyinbo (2015), and Boey et al. (2012). The findings of Ukpere et al. (2012) showed that on-board services, income, frequency, comfort, airfare, crew behavior, and power of monopoly were key variables influencing the choice of the airline by air passengers. In Ayantoyinbo (2015), the study revealed that price is the most influential variable followed by convenience in a flight and regularity of flight among Nigeria domestic airline services. Boey et al. (2012) revealed that safety is the most significant factor in the choice of patronizing full-service airlines in Malaysia.

Discussion of findings

Previous studies have been able to identify several factors that determine the choice of airline for air travellers, particularly international air transport service providers, but there is still insufficient information on domestic air transport service providers. The study, therefore, attempted to ascertain the degree of influence that each of the determinants has over domestic passengers' decisions on choice of airline. The study had two specific research objectives, which included: ascertaining the airline service qualities influencing the choice of airline among domestic passengers and ranking of

air service qualities based on domestic air passenger preference in Lagos. The findings of this study indicated that airfare differential was found to be more significant among the determinants of airline choice while route availability was next. This finding further put into proper perspective other findings by many scholars on airline service quality. For instance, some scholars (Garaus & Hudakova, 2022; Munoz & Laniado, 2021; Sidiq et al., 2021; Lee et al., 2019; Nenem, Graham & Dennis, 2020; Camelleri, 2018; Cho & Dresner, 2018; Unger et al., 2016; Milioti, Karlaftis, & Akkogiounoglou, 2015; Wang et al., 2014; Campbell & Vigar-Ellis, 2012) found that airline service qualities influenced the decision of air passengers in choosing their preferred airline. Particularly, the finding corroborates Sidiq et al. (2021) who found that airfare also influences passengers' choices. However, this study went further to assess those identified factors (passenger airfare, route availability, baggage handling, comfort, good customer service, safety, and security) and rank them to determine their level of influence on the choice of airline. The finding revealed that passenger airfare and route availability are the most important variables influencing domestic air passengers' preference for a particular airline in the Nigerian domestic scheduled air transport system. This result corroborated (Ukpere et al. (2012), Ayantoyinbo (2015), and Boey et al. (2012). The reason that may be adduced to airfare being the most influential among the service qualities could be linked to the economic situation of the country. It is imperative to understand that, if the economic situation is improved, other service qualities may determine the choice and when this does not happen, it may result in airlines not improving in other areas of service quality provision, which could hamper air transport development in Nigeria. Therefore, it is very pertinent that the government should develop a policy plan that could make airfare affordable to many, to encourage passengers to consider other service qualities in a way that could help develop the air transport sector. For the second objective, the findings showed that Air Peace ranked highest on service quality provision among domestic airlines in Nigeria (see Table 3). The Table further indicated that Air Peace is the most preferred

airline based on route availability, baggage handling, comfort, good service to customer and safety. This finding suggests that Air Peace prioritises passengers' satisfaction in the area of service qualities.

Conclusion

In this study, we examine the determinants of airline choice among domestic passengers and how each of the factors influenced air passengers' choice of airlines. Results of the study indicated that passenger airfare and route availability were identified as the major determinants for passengers' choice of airline for domestic travels. This finding complements the results of Koech & Macario, (2023), Bauner & Liu. (2022), Munoz & Laniado (2021), Sidiq et al (2021); Ukpere et al. (2012) where they found that service quality was part of the determinants for domestic airline choice. In addition, as revealed in this study that passenger airfare is the primary reason domestic passengers decides on which airline to board, it is in contrast to the argument of Mukarramah and Adebiyi (2014) where they confirmed that service quality, perceived value and customer satisfaction influences passengers' choice of airline. Domestic airline operators must improve on airline service quality to boost passengers' patronage. As any airline that improves on these is likely to enjoy more patronage and thereby increase income and profit. The ranking of these determinants also shows that the leading airline that embraces high standard of service quality enjoys high patronage. It is necessary to note that the stability of any airline in the air industry largely depends on its ability to meet passengers' expectation on their wants and needs to meet customers' satisfaction, particularly in the area of airfares. Therefore, respective governmental agencies should drive policies to help stabilize airfares in order to bring about a sustainable air transport system.

Conflict of interest statement

The author hereby categorically states that there is no conflict of interest.

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