

Perception of tourists on air transportation service qualities and performance in Nigeria

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ABSTRACT

Air transport plays a vital role in the tourism industry, and understanding tourists' perceptions of its influence is crucial for tourism development. This study seeks to investigate tourists' perceptions of air transport and tourism performance, using Murtala Muhammed International Airport (MMIA) in Lagos, Nigeria, as a case study. The study surveyed 289 tourists using purposeful sampling techniques and analyzed the collected data using Stata for both descriptive and inferential statistics. We used frequencies, tables, charts, mean, and standard deviation to describe the data, and employed the stepwise multiple regression model to explain tourists' perceptions of tourism performance. The result shows that tourists perceive air transport as a significant factor influencing their overall travel experience and tourism performance. Key aspects of air transport influencing tourism activities include convenience, accessibility, frequency, reliability, cost-effectiveness, comfort, and speed. The study identifies reducing delays and cancellations, enhancing airport facilities, and improving ground transportation options. These findings have implications for airport transport management, airlines, and tourism stakeholders seeking to enhance the tourism experience and promote destination competitiveness.

Keywords: Tourism industry performance, tourists' perception, air transport, Murtala Muhammed International Airport, Nigeria

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1. Introduction

Individuals have traversed different locations, employing various means of transportation for diverse purposes. The objectives encompass pleasure, events, relaxation, inquiry, and exploration, as well as familiarizing oneself with and appreciating diverse civilizations (Bieger & Wittmer, 2006). Travel and exploration are inherent elements of human nature (Hall, Segal & Osborne, 2017). Travel is the act of transporting humans or objects from one distant geographic area to another. According to Samimi, Sadeghi & Sadeghi (2017), travel has been an integral aspect of human existence since ancient times, and its evolution has led to the emergence of tourism. Tourism is an essential part of human life that involves people temporarily leaving their homes for a specific period. The United Nations World Tourism Organisation (UNWTO) defines tourism as the act of individuals travelling to and staying in places outside of their usual environment for a duration of up to one year, primarily for leisure, business, or other purposes. The 1991 WTO International Conference on Travel and Tourism in Ottawa presented an all-encompassing explanation of tourism. According to Sitaula (2021), tourism is defined as the actions of individuals who venture beyond their usual surroundings for a specified period, with the primary objective of their journey being anything other than participating in a remunerated endeavor at the destination. According to Samimi et al. (2017), tourism is the combined events and relationships that arise from the interaction between tourists,

businesses, governments, and communities with the goal of attracting visitors. According to Ronald & Emmy (2019), accurately describing tourism is a complex but essential undertaking in order to fully grasp the features, scope, impact, and magnitude of tourism on a global level. Tourism, according to Simpson (2018), includes all types of travel. Individuals or organizations travel from one place to another temporarily with specific tourist goals. Hence, it is a complex and captivating phenomenon. It includes all aspects of human existence and society, such as social, political, economic, cultural, historical, and physical aspects. Based on the foregoing information, we can infer that tourism is the deliberate act of a person leaving their usual place of residence and travelling to a different location for a period of up to 72 hours. The primary goal of this journey is to engage in activities such as observing notable sites, acquiring knowledge, or pursuing other meaningful endeavours that have a significant impact on one's life (Nsabimana & Spencer, 2013). Aviation is a widely used method of transportation. Krejcie and Morgan (2010) provided empirical evidence that unequivocally demonstrated aviation's superiority in terms of both speed and safety compared to other modes of transportation.

2. Related Studies and Research Gap

Although air travel has expanded and improved since Nigeria's independence, and air transport plays a significant role in enabling tourist travel, Nigerian airports

continue to face various challenges. There is increasing apprehension regarding the influence of air transport services on the effectiveness of tourism at Murtala Muhammed International Airport (MMIA) in Lagos, Nigeria. Some of the issues include congestion and delays, frequent cancellations and rescheduling, limited ground transportation alternatives, high taxi costs, perceived security concerns, and inadequate airport facilities and services. These problems can have adverse effects on tourists' travel experiences, resulting in diminished tourist satisfaction, poor word-of-mouth and online reviews, decreased likelihood of returning and loyalty, reduced competitiveness of the location, and unfavourable economic consequences for the tourism business. Moreover, there is a deficiency in comprehending tourists' perspectives regarding the impact of air transport on the performance of tourism at Murtala Muhammed International Airport (MMIA). This lack of awareness poses a problem for devising effective methods to tackle these issues and improve the overall tourism experience. Several studies by Bieger & Wittmer (2006), Yusuff (2016), and Mwageni, Mlozi & Uiso (2024) extensively discuss interesting issues relating to air transport and tourism. Using a system model, Bieger and Wittmer (2006) investigated the interlink between air transport and tourism. They propose a clear airline policy, and an air access strategy appears to be necessary. Yusuff (2016) assessed the tourism sector's economic contribution to the Nigerian economy, as well as the constraints preventing its development. The paper focused on tourism infrastructure and tax regimes and further recommends that more funding to the sector,

in addition to improvements in infrastructure and the removal of multiple tax regimes for hoteliers, would be the right strategies to enhance the repositioning of the sector as a vital tool for the growth of the nation's economy. Huang-Ping et al. (2021) provided a new approach based on network data envelopment analysis and social network analysis to identify potential opportunities among origin countries for accessibility to a given tourism destination. The study found that the involvement of tourism intermediaries (such as tour operators and travel agents) is a key factor influencing most tourism-originating countries' performance. Mazzola et al. (2022) evaluated the influence of air transport on tourism arrivals to selected islands in seven southern European Union countries to determine the nature of the relationship between tourist arrivals and air transport, specifically, whether air transport services generate tourism demand or merely enable touristic flows. The study found that transport infrastructures had a moderate impact on generating additional tourist arrivals; however, the model demonstrates that air transport is a prerequisite to developing tourism demand and is not the only determinant in increasing tourist arrivals. Tourist arrivals appear to be more of a determinant than a consequence of changes in in-flight connections. As a result, this study seeks to examine tourists' perceptions of air transport service quality and tourism performance in Nigeria. It is hypothesized that air transport service qualities (convenience, accessibility, customer service, frequency, safety, cost affordability, comfort, and fastness) have a statistically significant influence on Nigerian tourism performance.

3. Materials and Methods

3.1 Study area

The primary data for the study was collected at the Murtala Muhammed International Airport (MMIA) in Lagos, Nigeria (see Fig. 1). World War II saw the establishment of this airport in 1947. However, the death of Nigeria's military leader in 1976, named Murtala Muhammed, inspired the renaming. This airport serves as Nigeria's main entrance and is a significant hub for aviation transportation in West Africa. The Federal Airports Authority of Nigeria (FAAN)

manages the airport as a publicly operated facility. It is located in Ikeja, Lagos State's administrative center. The research area helped to detect and evaluate the condition under investigation. It also facilitated data collection and analysis, as well as the identification of underlying factors for treatment development. Furthermore, it included the implementation of counteractive measures and the examination of strategies to determine their effectiveness.

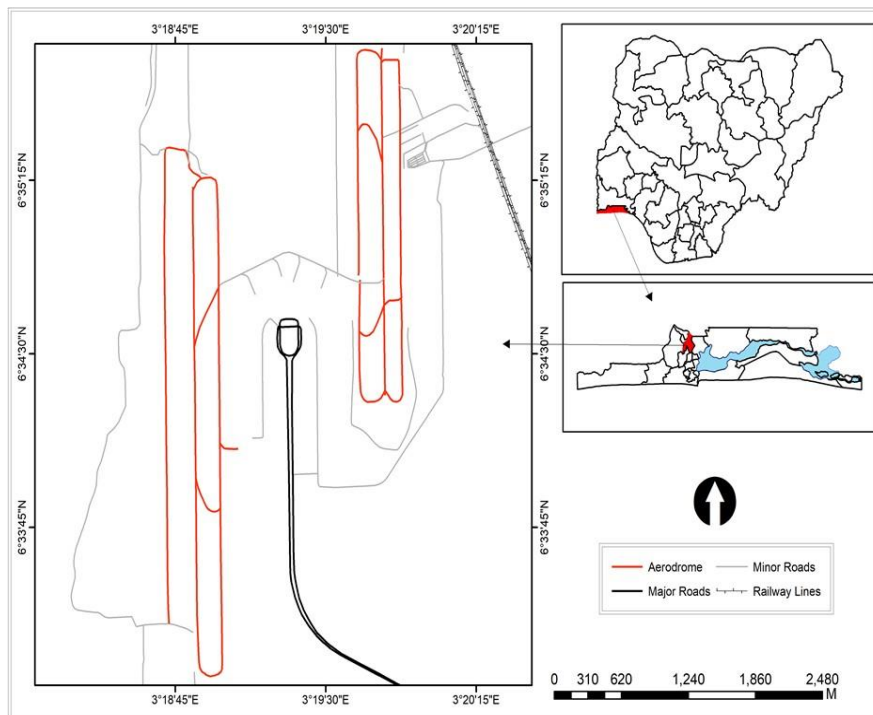


Fig. 1: Muritala Muhammed Airport, Ikeja, Lagos. *Source: Aiyegbajeje (2023).*

3.2 Data collection and analysis

This study utilized both primary and secondary data. We collected primary data by administering a structured questionnaire to passengers at the arrival and departure lounges of MMIA. The structured questionnaire allowed air passengers to specify their travel purpose, thereby identifying the tourists among them. Other aspects include an assessment of the impact of air transport on tourism activities. Purposive sampling techniques were adopted. We intentionally selected air passengers who are tourists at the airport lounge, using this technique. Using the Taro Yamane sampling formula, 368 respondents were sampled through a structured questionnaire form. The questionnaire administration achieved a response rate of 289 (78.5%). Participation in this study was simply voluntary. The study analyzed the collected primary data using both descriptive and inferential statistics. We used descriptive statistics such as frequency tables and crosstabulations, as well as inferential statistics like multiple regression analyses, to test the formulated hypothesis. We conducted the analysis using the Stata 17 statistical package. The dependent variable (y) is the influence on tourism activity. In contrast, the independent variable (x) is the elements of air transportation service quality (convenience, accessibility, speed, safety, cost affordability, and comfort). We used the backward elimination method of multiple linear regression models to analyze data collected for the hypothesis, which states that air transport service qualities (convenience, accessibility, fastness, safety, cost affordability, and comfort) statistically

significantly influence tourism activities in Nigeria. The backward elimination method, a more systematic approach, begins with a complete set of variables and gradually eliminates them until only those statistically significantly associated with the outcome remain. The model, as stated:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + \dots \dots \dots \text{eqn (1)}$$

Where, Y = Dependent variable is: Tourism performance;

a = Y intercept; b₁-b₃ = regression coefficients.

The independent variables are: X₁ = Convenience; X₂ = Accessibility; X₃ = Fastness; X₄ = Safety; X₅ = Cost affordability; and X₆ = Comfort.

We measured the dependent variable (the use of inland waterways to move freight) by re-grouping the operators' responses to the questions: What is the number of cargo movements you make each day, and what is the nature of the voyage? We tabulated these responses under the sub-theme: What factors influence your choice of water route? We measured the independent variables by asking questions covering variables in X₁-X₆. We measured the independent variables from the participant responses as follows: 1 if a variable influences tourism, and zero otherwise.

4. Results

4.1 Demographic profile of respondents

This section discusses the demographic profile of the participants. Table 1 demonstrates that the sample represented both male and female, with 162 (56.0%) of the respondents being male and 127 (44.0%)

being female. Also, 49 (16.9%) of the respondents were below 25 years, 60 (20.8%) were within 25–34 years, 81 (28.0%) were within the range of 35–44 years, 52 (18.0%) falls within the age bracket of above 45-54 years, while 47 (16.3%) of the respondents are above 55 years. This analysis suggests that the modal age of 35–44 represents the majority of respondents. In addition, 162 (56.1%) of the respondents were single, 108 (37.4%) of the respondents were married, and 19 (6.5%) did not disclose their marital status. Additionally, 93 (32.2%) of the respondents

were secondary school certificate holders. Meanwhile, 152 (52.6%) attended and completed their tertiary education, indicating that the majority of the respondents possess sufficient education to comprehend the relevance and implications of the study. Finally, the table shows that 95 (32.9%) of the respondents came from Europe, while 80 (27.7%) were from Africa, 52 (17.9%) came from North America, 43 (14.9%) were from South America, and 19 (6.6%) were from Asia.

Table 1: Demographic Characteristics of Respondents. (Source: Authors' analysis, 2024)

Demographic Characteristics	Statuses	Frequency	(%)
Gender	Male	162	56.0
	Female	127	44.0
	Total	289	100.0
Age (Years)	Less than 25		
	25 – 34	49	16.9
	35 – 44	60	20.8
	45 – 54	81	28.0
	55 above	52	18.0
	Total	47	16.3
Marital Status	Single	162	56.1
	Married	108	37.4
	Others	19	6.5
	Total	289	100.0
Academic status	Primary	Nil	0
	Secondary	93	32.2
	Tertiary	152	52.6
	No response	44	15.2
	Total	289	100.0
Continent of Tourists	Europe	95	32.9
	Africa	80	27.7
	N/America	52	17.9
	S/America	43	14.9
	Asia	19	6.6
	Total	289	100

4.2 Level of satisfaction among tourists with air transport services' qualities

Table 2 shows that the majority of tourists agreed that they could recommend Nigeria as a tourist destination, with a mean of 4.00 and a standard deviation of 0.713. The majority agreed that the overall services performed at the airport were satisfactory, with a mean of 4.04 and a standard deviation of 0.749. The majority stated that the airport terminal employees are customer-focused, with a mean of 3.14 and a standard deviation of 1.148. In addition, the good services at the airport made me plan another trip to Nigeria with a mean of 3.14 and a standard deviation of 1.148. Ultimately, they plan to spread positive word-of-mouth about Nigeria among their peers in my country. This indicates marginal agreement regarding the level of satisfaction among tourists with air transport services at Murtala Muhammed International Airport, Lagos, according to the questionnaire coding.

Table 2: Level of satisfaction among tourists with air transport services qualities.

Variable	Mean	Std. Deviation
I will recommend others in my country to visit Nigeria	4.00	.713
The overall services performed at the airport were satisfactory	4.04	.709
Employees at the airport terminal are customer-focused	3.14	1.148
The good services at the airport made me plan another trip to Nigeria	3.17	.910
I will communicate positive word of mouth about Nigeria to fellow people in my country	3.14	1.148
Overall mean and Standard deviation	3.58	0.87

(Source: Authors' analysis, 2024)

4.3 Impact of air transport service qualities on tourists' perceptions

As shown in Table 3, the majority of the respondents reveal that the cost of air transport has a positive influence on tourism, with a mean of 3.22 and a standard deviation of 0.711. The majority agreed that convenience impacts my perception of the tourism of a country they visit, with a mean of 4.13 and a standard deviation of 0.999. Furthermore, the majority agreed that

comfort impacts their perception of the tourism of a country they visit, with a mean of 3.05 and a standard deviation of 1.047. On the other hand, safety significantly influences my perception of a country's tourism, with a mean score of 3.80 and a standard deviation of 0.869. Finally, the speed of air transport impacts my perception of the tourism of a country they visit, with a mean of 3.22 and a standard deviation of 0.711.

Table 3: Tourists' perceptions of air transport service qualities and tourism performance (Source: Authors' analysis, 2024)

Variables	Mean	Std. Deviation
Air transport cost impacts on tourism	3.22	.711
Convenience impacts my tourism in a country I visit	4.13	.909
Comfort impacts on the tourism of a country I visit	3.05	1.047
Safety impact on tourism of a country I visit	3.80	.809
The impact of fastness on tourism in a country I visit	3.22	.711
Overall mean and Standard deviation	3.55	0.869

4.4 Regression analysis on air transport service qualities and tourism performance

Table 4 summarizes the model's performance, along with relevant analysis. The R² value represents the actual coefficient of determination and ranges between 0 and 1. The responsiveness of air transport service factors enhances 50.3% of the actual variation in tourists' perceptions, as indicated by the R² value of 0.503. This indicates that factors outside of air transport services only account for 49.7% of the

variations. Also, according to the above ANOVA table, the F-value (F-94.971, P-0.000) is significant (i.e., a significant value is less than 0.05), indicating that the model is reliable. In addition, the above regression model coefficient table reports the coefficients for the factors of air transport services. The model coefficients demonstrate that the t-statistic of 9.693 is significant at 0.05. Therefore, we accept the hypothesis that the qualities of air transport services (convenience, speed, safety, air-transport cost affordability, and comfort)

statistically significantly led to an increase in tourist performance. However,

accessibility and customer service were not significant.

Table 4: Regression analysis on air transport service quality and tourist activities (Source: Authors' analysis, 2024)

a. Predictors: (Constant), factors of air transport services

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.709 ^a	.503	.497	.81874	
ANOVA ^b					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	62.985	1	62.985	94.971	.000 ^a
Residual	62.341	199	.663		
Total	125.326	200			
Coefficients					
(Constant)	1.479	.265		5.577	.000
Factors of air transport services	.784	.081	.709	9.693	.000

b. Dependent Variable: tourists' perceptions
F- 94.971, P – 0.000

(i.e., how air transport services support tourism activities or tourism

5. Discussion of results

Travel and exploration are inherent elements of human nature Hall & Hall, 2011). Human travel has traversed different locations, using various modes of transportation for diverse reasons Bieger & Wittmer, 2006). Human travel has been an integral aspect of human existence since ancient times, and its evolution has led to the emergence of tourism Mwageni et al, 2024). Several studies focus on tourism on the one hand and transportation on the other. However, this study focuses on the impact of air transportation service quality on tourism

performance). The study hypothesized that air transport service qualities (convenience, frequency, safety, cost affordability, comfort, and fastness) statistically significantly influence tourism activities in Nigeria. The findings of this study revealed that air transport service qualities (convenience, accessibility, frequency, safety, cost affordability, comfort, and fastness) statistically significantly influence tourism activities in Nigeria (F-94.971, P-0.000). This result strongly suggests that all the variables are statistically significant at P 1.000. The findings of this study revealed a powerful and significant positive

contribution to Nigerian tourism development. This implies that air transportation, despite the high cost of tickets, has contributed significantly to the growth of tourism in Nigeria. This study employs the quality of air transport services to gauge the motivations behind the use of air transport for tourism. The findings of this study corroborate those of other studies by Putrik et al (2022), Papatheodorou & Forsyth (2008), and Dileep and Kurien (2022), which found that the development of air transport has become a critical factor in the development of tourism. Sofyani et al. [20] found that any airport that fails to consider the perception of tourists in its service operations will not be able to survive in the tourism industry for long. These findings indicate that sustaining air transport will lead to the imminent development of global tourism.

6. Conclusions

We can conclude that air transport significantly contributes to the performance of tourism in Nigeria, and both the government and private players should prioritize it to ensure its continued benefits

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to the tourism and hospitality sectors in Nigeria. The future of tourism and its contribution to the economy depend to a large extent on the development of air transport (Dileep & Kurien, 2022). From the above, it follows that there is a delicate connection between tourism and aviation. The provided statistics and sources reveal that the concurrent growth of aviation is crucial for the advancement of Nigeria's tourism industry. Ensuring safety and a high quality of service both during air travel and at the destination point demonstrates a good relationship between tourism and aviation. It will have a positive impact on the future performance of Nigerian tourism. However, this study provides recommendations for future research to investigate the reasons behind the lack of significant accessibility to air transport, with a focus on enhancing this factor to improve tourism further. Also, there is a need to investigate the weak customer relationship to improve tourism and air transport performance, since quality customer service could influence travellers to revisit Nigeria.

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