



Liberalisation And Socio-Economic Characteristics of Regional Air Passenger Travel from Nigeria to Other West Africa Countries

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Abstract

This paper aims to examine the impacts of liberalisation on regional air passenger travel's socio-economic characteristics within the West Africa sub-continent. It examines this impact in a two-way dimension of pre-and post-policy evaluations on socio-economic characteristics. The methodology involves using purposive sampling of the passenger who had experienced regional travel from Nigeria to other West Africa countries in the pre-and post-era. A total of 428 respondents were used in the analysis. The questionnaire was administered while the passenger was on the queue to be screened for boarding and arrival. After the passenger has confirmed to have both pre-and post-liberal regional travel experience. The analysis involves an in-dept theme descriptive analysis of policy impact in a comparative evaluation of pre-liberalisation and post liberalisation dimensionality. The study reveals that since liberalisation the passenger's socio-economic characteristics have improved significantly. The research shows that the socio-economic trips of passenger improved significantly from Nigeria to other West African countries and vice versa. Overall, regional efforts to strengthen the system must be stepped up to bring about further benefits for socioeconomic advancement.

Keywords: Liberalisation; Socioeconomic Characteristics; Nigeria; West Africa



The liberalisation of the air transport has huge potential benefits for the global and regional livability and development (Chakravarty, et al, 2021). Air network provided an enabling framework to facilitate deepening and long-lasting social and economic improvement and betterment (Sawai & Sato, 2016 and Oliveira et al., 2021). However, the impact of socio-economic characteristics of air network may differ across global and regional geographies (Wong et al., 2019). As different regional social and economic realities relate to the inherent cultural understanding underpinning the geopolitical and socio-economic structure (Oloruntoba, 2020). The implication of the preceding is that the air liberalisation adoption among the global societal entities has diverse outcomes depending on the embedding socio-economic context and characteristics of the geographic concern formation (Hatuka et al., 2018). The assumption of policy efficacy therefore may well depend on the typical contextual socio-economic evolvement. The influence of policy, guided by understanding the socio-economic characteristic and attributes of the specific societal context (Markham, et al., 2018), since the socio-economic feature may help evaluate the potency of policy adoption in society. Understanding socio-economic characteristics impact air liberalisation policy within West Africa may assist development agencies on the necessary intervention to consolidate and evolve a lasting solution to the myriads socio-economic issues (Tolcha et al., (2020).

The debilitating West African social and economic conditions tied to poor air transport infrastructure is glaring (Kütting, 2003 and Bakari, 2013). As a result, efforts to improve regional air links are needed. The resultant formation weakened through delayed liberalisation adoption for socio-economic cohesion and livability (Awad, 2019). Nigeria, regarded as the dominant economic powerhouse among the West Africa countries has the highest population in the subregion. But to what extent could this be an advantage for economic development in the face of limited air connectivity among the member state. Parts of the benefit of policy are breaking language barriers and fostering the needed socio-economic development in the region. Because of the increased frequency of air travel in the region, which has been boosted by improved socio-economic ties as a result of regional air liberalization,

Studies in regional air transport liberalisation have focused on passengers, cargoes, network and market (Fu, X., et al.;2010; Dai et al., 2018; Zhang & Graham,2020 and Njoya et al., 2018). These studies explore the significance of liberalisation policy on the narrative of passenger and cargo impacts but ignored the socio-economic



impact consideration. And this is pertinent, especially for development agencies partners to evaluate an intervention to alleviate poverty and improve social and economic conditions in the developing economy. In this regard, the West African economic bloc is not an exception, since there is a spike in nefarious activities such as banditry, kidnapping, terrorism and herdsman and farmers clashes that have affected livelihood and decrease socio-economic livability. Air transportation seeks to enhance the travel in the subregion. But to what extends, this research aims to examine the socio-economic impacts within the sub-region.

In light of the above, this study intends to examine the impact of air liberalisation policy on the regional socio-economic characteristics with regional impact assessment. Such flows are studied with the attendant qualitative relational attributes of liberalisation and trip patterns, purpose and frequency of flow within the subregion. Besides, the various challenges militating against the socio-economic flow of passenger within the region examined.

1. Literature Review on passenger travel behaviour, demographic and travel characteristics

This section presents a brief review on the literature relating to passenger travel behaviour, demographics and travel characteristics. While travel behaviour and characteristics are often associated mostly with transport studies. However, it is important to note that literature differs on experiences and behavioural outcomes and characteristics relating to the modes of transport used. The pattern of travel behaviour characteristics on high-speed rail passenger in china depends on station quick passenger transfer and enjoy patronages of high-income young Chinese working in Beijing (Chan, & Yuan, 2017). While some literature for behavioural demographic on public transport favour the students school trips and workers. (Neff & Pham, 2007 and Tao et al., 2014). However, for the air transport sub sector, behavioural travel characteristics may depend on the price of airline fares for the destinations and the demand between paired location may influence pattern of passenger flow. (Biolini et al.,2020). However, most of the extant studies have failed to consider the influence of socio-economic characteristics on a regional perspective, and especially considering the imminent socio-economic crisis prevailing in the West Africa region.

2. Material and Methods

2.1. Research design and Data Collection Procedure



The primary data obtained using a structured questionnaire to collect information on air travel challenges from Nigerian cities to other West African countries. The questionnaire designed to elicit information on demographic and socio-economic factors. These characteristics include age, sex, marital status, nationality and household size, educational status, occupation and estimated income. It seeks information on the trips patterns from Nigeria to other West African countries. These include, among others, the number of the regional intercity trip within a month. It provides data on the purpose of regional intercity trips and frequency of the regional intercity trips.. It obtained information on the difficulties often encountered and travel characteristics in regional travel from Nigeria. A purposive sampling technique adopted for the questionnaire administration. The population comprised the regional route outward from Nigeria to other West African countries. The people of interest have used air transport services between 1988 and 2001 (before the commencement of liberalisation of regional air transport). They have equally used the services after the beginning of the African civil air liberalisation policy (from 2001 to 2018).

The purposive sampling technique is a representative or selection of a specific individual or sample from the population. These individuals were deemed to possess peculiar characteristics and attributes that contribute to effective research design and help validate the research study process. The purposive sampling is a non-probability sampling technique that does not adopt a randomised principle in selecting the chosen sample. (Richardson et al.,1995). The following studies also support the adoption of the sampling procedure (Panacek and Thompson 2007 Spasojevic et al.,2017)).

In this study, the sample was taken from Lagos and Abuja airports, the gateway for regional air travel service from Nigeria to other West African countries. A total of 428 respondents who had regional travel experiences in both the pre-and post-liberalisation periods was selected. Richardson et al. (1995) examined the factors that are very important in determining the sample size for population parameter estimation. The first factor is the variability of the population in the parameters to be measured. The second factor is the degree of precision required for each parameter estimate, while the last is the population size. For this study, the population of interest's size was quite challenging to determine given the nature of the population of interest (regional air travellers who had both the pre-and post-liberalisation air transport experience). However, the nature of the population of interest, degree of precision of the parameter estimate from respondents, timing constraint on an ever-busy traveller



onboarding line at the departure and arrival hall at the International airports. A total of 428 respondents willingly participated in the survey—the questionnaire administered while passengers were in the queue to be screened for boarding and on arrival. After the passenger, confirmed to have both pre-and post-liberalisation regional travel experience, the questionnaire administration, interview and fieldwork and carried out between December 2017 and July 2018.

3. Results and Discussion

3.1 Demographic and Socio-economic Factors in Regional Travel Pattern from Nigeria to other West African countries

The socio-economic factor plays a crucial role in Nigeria's evolving travel patterns to other West African countries in pre-and post-liberalisation. The vital socio-economic indicators for this study are sex, age, marital status, nationality, household size, education, occupation and income.

Table 3.1 shows that 275 (64.3%) of the respondents are males, while 153 (35.7%) of the respondents are females. The marital status of the respondent reveals that single 3 (0.7%), married 386 (90.2%), widowed 18 (4.2%), divorced 14 (3.3%) and separated 7 (1.6%). Also, the distribution of the occupation of the respondent reveals that self-employed had (36.0%), farmer (0.9%), the private sector employed (30.8%), professional (12.4%), civil servant (17.1%) and others (2.8%). Implicit in this, most travellers from Nigeria along the West African routes are business people, the private sector employed, civil servants and professionals. The distribution of the nationality that flew from Nigeria to other West African countries during both eras is as follows: Nigerians had 288 (67.3%), Ghanaians 76 (17.8%), other West African 57 (13.3%) and other Africans 7 (1.6%). In another vein, the household size of the travellers from Nigeria to West African routes are as follows: the respondents with 1-2 household had 105 (24.5%), 3-4 household 203 (47.4%), 4-6 household 119 (27.8%) and others 1 (0.2%). The respondent's education, distributed as follows: senior secondary school education had 58 (13.6%), technical college/vocational centre degree 98 (22.9%), with HND/B.ED/B.Sc 157 (36.7%), post-graduate degrees 107(25.0%) and others 8 (1.9%). Most of the travellers along the West African route have basic education and can express themselves well. And for ages of the respondents, the number within the age range of 41-50 had 125 (29.2%) while the age range of 51-60 had 267 (62.4%), which is the highest age range among respondents. The last age range of 61-70 had 36 (8.4%). The income distribution of the respondents, N50000-N150000 had 6 (1.4%) while the ranges

between N151000-N250000 had 152(35.5%) and the range between N251000-N400000 had 270 (63.1%).

Table 1: Demographic and Socio-economic Characteristics of the Respondents

S/No.	Characteristics	Status	Frequency	Percentage
1	Age	41 – 50	125	29.2
		51 – 60	267	62.4
		61 – 70	36	8.4
2	Sex	Male	275	64.3
		Female	153	35.7
3	Income	N50000 –	6	1.4
		N150000	152	35.5
		N151000 –	270	63.1
		N250000	0	0
		N251000 –		
4	Marital Status	N400000		
		N400000 above		
		Single	3	0.7
		Married	386	90.2
		Widowed	18	4.2
5	Household Size	Divorced	14	3.3
		Separated	7	1.6
		1 – 2	105	24.5
		3 – 4	203	47.4
		5 – 6	119	27.8
6	Educational	Others	1	0.2
		Senior	58	13.6
		Secondary		
		School	98	22.9
		Technical		
		College/Vocational	157	36.7
		HND/B.ED/B.Sc. degree	107	25.0
Postgraduate Degree	8	1.9		
	Others			

7	Nationality	Nigerian	288	67.3
		Ghanan	76	17.3
		Other West African	57	13.3
		African	7	1.6
8	Occupation	Self – employed	154	36.0
		Farmer	4	0.9
		Private sector employed	132	30.9
		Professional	53	12.4
		Civil servant	73	17.1
		Others	12	2.8

Source: Author's Field Survey 2017/2018

3.2 Regional Trip Pattern Characteristics of Respondents

This section examines the regional trip pattern characteristics of the respondent. The discussion in this section centres on the purpose of regional trip characteristics. Also, the frequencies and difficulties of regional inter-city trip characteristics are discussed. It examines the perspectives of passenger and cargo processing before and after liberalisation.

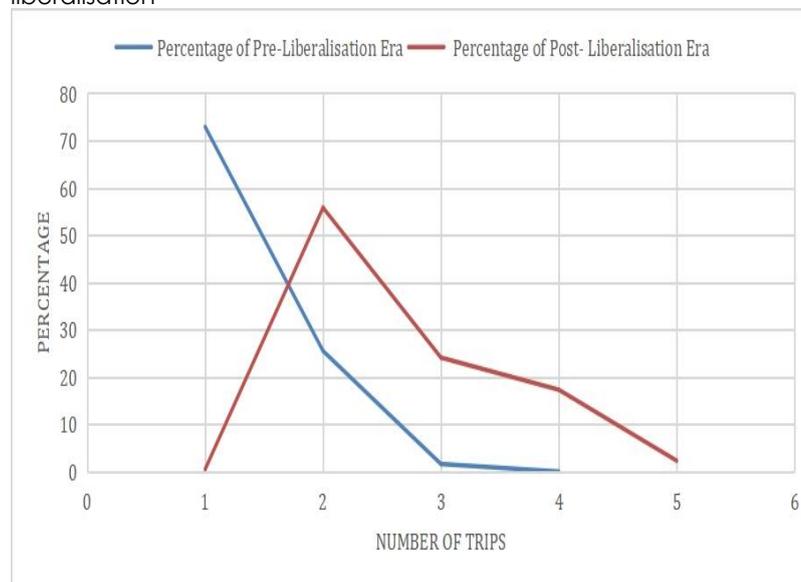
3.2.1 Regional Inter-City Trips Pattern before and after liberalisation

Part of the remarkable influence of the liberalisation policy along regional travel from Nigeria to other West African countries is that there had been notable changes in the number of trips made in a month from Nigeria to other West African countries from pre-liberalisation to post-liberalisation eras. Table 2 shows that the total average number of trips in a month had increased from three to five in a month from Nigeria to other West African countries. The single trip in a month had the highest frequency of 312 in the pre-liberalisation era against 2 for the trip in a month and a frequency of 239 for the post-liberalisation period. The respondents' trip pattern along the West African route from Nigeria had changed remarkably in terms of increases in monthly trips made on this route, as shown in Figure 1.

Figure 1 shows the distribution of trips making pattern during the pre-liberalisation era from Nigeria to other West African countries. It shows the following distribution, those with one trip in a month had 312 (72.9%) from Nigeria to other West African countries, two trips in month 109 (25.5%) from Nigeria to other West African countries and three trips

in a month 7 (1.6%) from Nigeria. While the post-liberalisation, one trip in a month had 2 (0.5%) from Nigeria to other West African countries, two trips in a month 239 (55.8%) from Nigeria to other West African countries and three trips in a month 103 (24.1%) from Nigeria. Besides, four trips in a month 74 (17.3%) and lastly, five trips in a month had 10 (2.3%).

Figure 1: Number of Regional Trips in a month before and after liberalisation



Source: Author's Field Survey 2018

3.2.2 Purpose of Regional City Pair Trip of Respondents from Nigeria to West African

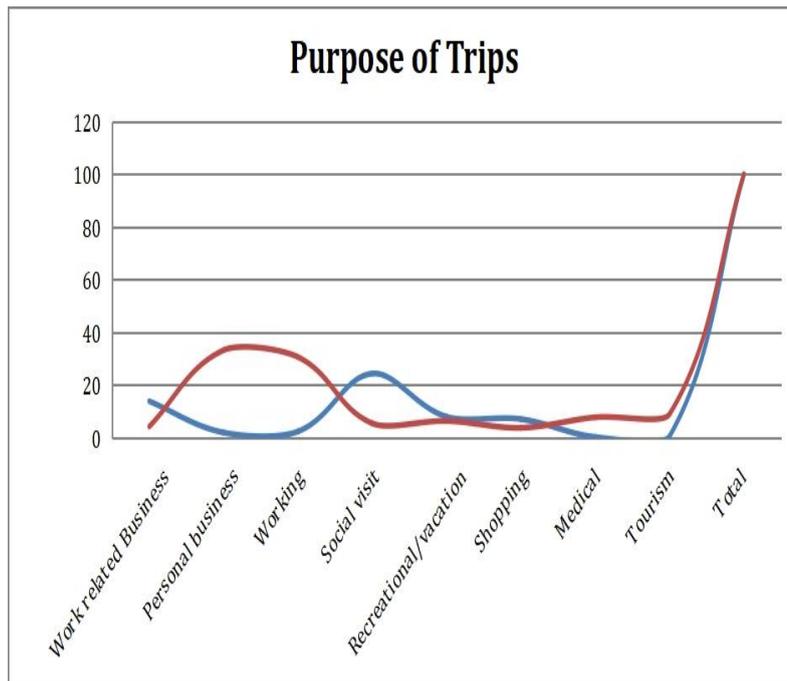
The purpose of regional city pair trips had changed significantly from pre-liberalisation to the post-liberalisation eras. The respondents have experienced air travel in the western regional countries from Nigeria during the pre-liberalisation and post-liberalisation eras. For instance, the purpose of trips during both periods range from schooling, work-related business, personal business, working, social visit, recreational/vacation, shopping, medical and tourism.

Table 3 shows the purposes of trips during the pre-liberalisation era and they are as follows: trips on schooling had 180 (42.1%), work-related business 59 (13.8%), personal business 8 (1.9%), working 10 (2.3%), social visit 104 (24.3%), recreational/vacation 34 (7.9%),

shopping 30 (7.0%), medical 1 (0.2%) and tourism 2 (0.5%). It reveals that during the pre-liberalisation era, schooling, work-related business, social visit and recreational/vacation majorly constituted the reason for travel during this period.

Figure 2 shows the purposes of trips in the post-liberalisation period, the purposes of trip are as follows: work-related business had 18 (4.2%), personal business 142 (33.2%), working 131 (30.6%), social visit 23 (5.4%), recreational/vacation 27 (6.3%), shopping 16 (3.7%), medical 33 (7.7%), and tourism 38 (8.9%). There is a change in travel purposes in the post-liberalisation period as personal business, working, medical, and tourism was the primary reason for travel in the post-liberalisation era.

Figure 2: Purpose of Regional City Pair Trips before and after Liberalisation



Source: Author's Field Survey 2017/2018

3.2.3 Regional inter-city Trip of Respondents from Nigeria to other West African Countries

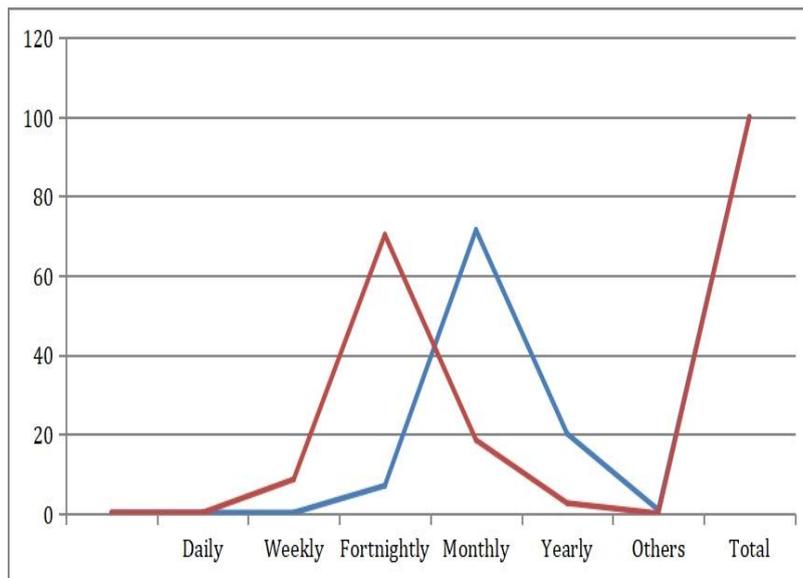


As part of examining the influence of liberalisation on respondents' regional intercity trip pattern, the study examines the frequency of the regional trip pattern of respondents. The measurement parameter examined along with the following movement patterns: daily, weekly, fortnightly, monthly, and yearly. These frequencies were analysed by dividing the trips pattern categories into trips frequency before liberalisation and trips frequency after liberalisation.

Figure 3 shows the trips frequencies during the period of the pre-liberalisation era. It reveals the following pattern, respondent with 1 (0.2%) had a daily frequency, 1 (0.2%) weekly, 30 (7.0%) fortnightly, 306 (71.5%) monthly, 86 (20.1%) yearly, 4 (0.9%) for others. Implicit in the preceding statistics, the frequency of regional inter-city trip during the pre-liberalisation era reveals that monthly travels along the regional route from Nigeria occupied the dominant frequency during the pre-liberalisation. The respondent who travelled along this regional route yearly follows in percentage figure after the monthly frequency in the pre-liberalisation era.

In another vein, during the post-liberalisation era, the following frequency pattern emerged. The daily frequency as analysed from the respondent surveyed had 1 (0.2%), weekly 36 (8.6%), fortnightly 301 (70.3%), monthly 79 (18.5%), yearly 11 (2.6%), and others had nil. Comparatively, as shown in Table 2 below, generally, the frequency of trips along the regional route from Nigeria seems higher in the post-liberalisation era than in the pre-liberalisation era.

Figure 3 Frequency of Regional Inter-Country Trip by Respondents





Source: Author's Field Survey 2017/2018

3.2.4 Difficulties Encountered during City Pair Air Travel before and after liberalisation

The study examines the difficulties the respondents had travelled along this route in pre-liberalisation and post-liberalisation eras. The essence is to understand travellers' challenges from Nigeria to other West African countries in the pre-liberalisation and post-liberalisation eras. The policymakers and researchers might be interested in redirecting policies to tackle the numerous challenges identified.

Table 2 shows the different difficulties faced by the respondents. For pre-liberalisation, the identified difficulties are flight availability, socio-cultural constraints, delays, flight cancellations, theft and touting. However, during the post-liberalisation era, the identified coded variable themes are customer service issues, flight availability, delays and infrastructure inadequacy. Table 5 shows the distribution among the respondents in the pre-liberalisation. The flight availability had 158 (36.9%), socio-cultural constraints 69 (16.1%), delays 68 (15.9%), flight cancellation 73 (17.1%), theft 40 (9.3%) and touting had 20 (4.7%).

However, the identified difficulties in the post-liberalisation era are as follows: customer service issues had 104 (24.3%), flight availability 102 (23.8%), delays 58 (13.6%), and infrastructure inadequacy had 164 (38.3%). Though both periods there seem to be different difficulties faced by the travellers from Nigeria to other West African countries; however, the major that pervades both periods is the flight availability. Therefore, there is a need for more capacity development in the West African sub-region aviation subsector to enhance flow flows and improve trade and socio-economic development.

Table 2: Difficulties Encountered in getting to Destination Cities during City Pair Travel along Regional Route from Nigeria



Table 2: Difficulties Encountered in getting to Destination Cities during City Pair Travel along Regional Route from Nigeria

S/No	Difficult	Pre-Liberalisation		Post- Liberalisation Era		
		Frequency	Percentage	Difficult	Frequency	Percentage
1	Flight availability	158	36.9	Customer service issues	104	24.3
2	Social cultural	69	16.1	Flight availability	102	23.8
3	Delays	68	15.9	Delays	58	13.6
4	Flight cancelations	73	17.1	Infrastructure inadequacy	164	38.3
5	Theft	40	9.3	-	-	-
6	Touting	20	4.7	-	-	-
Total		428	100	Total	428	100

Source: Author's Field Survey 2017/2018

3.2.5 Perceptions of Passenger on Cargo Processing

Two vital components of air travel carriages are passenger and cargo. It provides the basis for assessing air transport system efficiency. The efficiency of the air transportation system is determined by how quickly these two components are handled at the different air terminals. Policy initiation and recommendation are geared towards improving processes relating to passenger and cargo handling. This study therefore examines the impact of liberalisation on cargo and passenger effectiveness along the West African route from Nigeria to other regional cities. The perspectives on passengers who have travelled along the route in both the pre-and post-liberalisation era are vital to policy strength and reliability in bringing about commendable changes and transformation.

Table 3 shows the perspectives of passengers on cargo processing. These changes assessed based on the perceptions in the pre-and post-liberalisation era. The service ratings among respondents identified in the pre-liberalisation era are as follows. During this era, the perception on excellent had 2 (0.5%), very good 8 (1.9%), 106 (24.8%) good, fair 303 (70.8%) and poor had 9(2.1%). The deduction from this data is that generally, during the pre-liberalisation era, the rating of services affecting passenger and cargo was largely fair.

However, during the post-liberalisation era, the ratings of services are as follows: excellent 11 (2.6%), very good 113 (26.4%), good 276 (64.5%), fair 27 (6.3%) and poor had 1 (0.2%). Comparatively, post-liberalisation sees a significant improvement in passenger and cargo handling than in the pre-liberalisation era.



Table 3 Perceptions of Passenger and Cargo Processing

S/No.	Pre-Liberalisation			Post-Liberalisation	
	Perceptions	Frequency	Percent	Frequency	Percent
1	Excellent	2	.5	11	2.6
2	Very good	8	1.9	113	26.4
3	Good	106	24.8	276	64.5
4	Fair	303	70.8	27	6.3
5	Poor	9	2.1	1	.2
	Total	428	100	428	100

Source: Author's Field Survey 2017/2018

3.3 Travel Characteristics of Respondents

The perceptions of air travel characteristics and factors that influence the accessibility and choice of an airline from Nigeria to other West African countries are discussed. Also, the perceptions on the frequency of flight activities, level of service and accessibility of regional city pair from Nigeria. Finally, it examines the challenges relating to regional city accessibility from Nigeria in the pre-and post-liberalisation.

3.3.1 Perceptions of Air Travel Service Characteristics

The air travel service characteristics are beneficial to measure in the air transport service delivery. It helps us to understand the impact of the new policy on existing air transport systems. Typical parameters used in this study are flight availability, baggage handling, and quality of flight service, customs, immigration and security procedures, the perception of flight safety and flight bookings. These were assessed based on the two-time-frame of pre-and post-liberalisation. The perspectives of the respondents on these two periods are analysed.

Table 5.7 shows the perspectives of respondents on air travel characteristics. It was measured on the following air travel services scales of lowest, reasonably low, moderate, fairly high and highest. The following ratings of services among respondents were identified in the pre-liberalisation era. The respondents with the lowest rating had 7 (1.6%), reasonably low 299 (69.9%), moderate 106 (24.8%) and fairly high 16 (3.7%). However, for the post-liberalisation period, the following are the analyses on passenger perspectives on air travel services: the



respondents with the lowest had 1 (0.2%), fairly low 17 (4.0%), moderate 144 (33.6%), fairly high 257 (60.0%) and highest had 9 (2.1%).

Implicit from foregoing analysis, the impact of liberalisation on the air travel service characteristics was significant. There have been significant improvements in the service delivery as measured by respondents' perspectives in the air service parameters in both the pre-liberalisation and the post-liberalisation eras.

4. Conclusions

This study focuses on analysing the impact of liberalisation on the socio-economic characteristics of passenger flow from Nigeria to West Africa countries. Social, economic characteristics are essential indicators of social-economic livability (Elsawy et al., 2019). Remarkably, this study seeks to draw inferences from the relationship discussed above from the influence of air transport liberalisation on Nigeria's socio-economic regional travel characteristics to other West Africa countries.

This study concludes that there is a significant influence of the regional liberalisation policy on the socio-economic characteristics of regional travel from Nigeria as demographic and socio-economic indicators within the region improve significantly after the liberalisation.

In addition, the study reveals tremendous impact as a result of liberalisation on the regional air passenger travel's socio-economic characteristics such as increased opportunities for business, market, social cohesion, jobs, tourism, cultural affinity and value enhancements

The comparative analysis of the pre and post liberalisation effects of policy on regional travel characteristics reveals a significant impact of liberalisation on socio-economic attributes, especially after the take-off of the policy. Socio-economic trips from Nigeria to other West Africa countries increased tremendously, and other features signify immensely the policy's contribution.

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Author's contribution



Dr Adeniyi Oluwakoya contributed immensely from ideas conception to conclusion.

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