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Determinants of obong victor attah international airport, Akwa Ibom state on the employment status of the host communities

Abstract

The aviation industry has a vital role to play in achieving sustainable development in austerity nations like Africa, particularly in Nigeria. Interestingly, Africa accounts for just 2% of world GDP but hosts 13% of its population. As a result, GDP per capita in Africa is the lowest of the world's regions. The general picture is one of underdevelopment, political instability, economic volatility and pervasive poverty. While there is a major opportunity to improve living standards, quality of life and alleviate poverty through sustained economic growth. This research work measured the contributions of the Obong Victor Attah International Airport to the social and economic life of host communities of Uruan, Okobo and Nsit-Atai. LGA's in Akwa-Ibom State. Employment is one of the major parameters used in measuring these contributions. A buffer was used to demarcate the study into zones and a systematic sampling technique was employed in selecting the households to be sampled. The sample size composed of 400 respondents and this was determined from the population of the host communities using the Taro Yamane formula. Data needed for this study was obtained from questionnaires administered to the 400 respondents. Secondary data was collected from Ibom International Airport Development Company now known as Obong Victor Attah International Airport Development Company. Data collected were analysed using; percentages, charts, maps and simple linear regression statistical tools. The hypothesis formulated was tested using simple linear regression analysis, the null hypothesis which stated that airport does not significantly impact employment generation was accepted for employment. Results from the analysis revealed that 10% and 13% of the total number employed in 2013 and 2017 respectively were from the host communities. From this result it is here inferred that, Obong Victor Attah International Airport is not the major determinant of employment in the study area. It was recommended that the Government should create more employment opportunities for the host communities to improve their socio-economic well-being through the expansion of the nature-based tourist industry, which could offer not only a significant source of employment and income growth but also an effective mechanism to improve the sustainability of the environment, while also helping to protect the long-term sustainability of the tourism product in Akwa Ibom State and Nigeria in general.

Keywords: employment status, sustainability, economic volatility, pervasive poverty, host communities, sustainable development, nature-based tourist industry, determinants.

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Introduction

Airports typically provide direct employment across a range of industries employing a mix of both skilled and unskilled workers with the industry and skilled–unskilled distributions often varying across airports. The reported total employment generated by an airport (the sum of direct, indirect and induced jobs), relative to direct employment, varies widely across studies, from 1.5 to as much as 7.2 times the number of direct jobs.[1,2] Though it is most commonly between 2 and 3 times the number of direct jobs. According to Hakfoort, et al,[1] this ratio can change because of the geographical area assumed to be affected, different patterns of economic activity at different airports, different assumptions regarding upstream and downstream industry linkages, and different base case assumptions about the counterfactual scenario i.e. the level of production and employment in the region in the absence of the Airport.

York Aviation,[2] reviewing impact studies from across 25 airports, found out that an average for every million workloads units' European airports supported total employment (direct, indirect and induced) of 2950 jobs nationally, 2000 jobs regionally and 1425 jobs sub-regionally. However, even when the area assumed to be affected is kept constant, different studies can give very different results as shown by three different studies for Manchester Airport, (1988–1993) covering the same area (North West England) but with results showing total employment as 2.5, 3.6 and 4.4–5.6 times on-site employment Hakfoort, et al.[1] The large majority of airport economic impact studies[3–7] use data on airport operations, combined with survey data of on-airport and off-airport businesses and visitors. Some studies, however, have used different regression models. These studies offer insights into the data and regression variables that help explain the economic impact of airports.

Intervista[8] carried out an economic impact study of Cork airport. From their report, the primary tool used for estimating the economic impact of Cork Airport was an employment survey. This was augmented by data from government and airport services. Employment attributable to airport operations were measured by surveying businesses, located at the airport site. Off-site businesses that linked economically to the Airport were also surveyed. A total of 59 firms

were surveyed. Businesses surveyed included; Passenger and cargo airlines, courier/ integrators, ground handlers, government agencies, aircraft maintenance firms, air cargo, warehousing and logistics, car rental firms, hotels and airport retailers. The surveyed questionnaires collected information on: Type of business; Employment at the firm, broken down into full time, part-time and temporary; Annual payroll or average salary; broken down to employment by type of job; Proportion of business related to air cargo; Expenditures on goods and services and the geographic location of that expenditure. The total employment was presented in percentages with firms representing an estimated 83% of total employment from the survey. The direct employment impact of Cork Airports in 2013 amounts to 1,920 direct jobs, after adjusting for part-time and seasonal employment. Indirect employment was 1,650 full time job equivalents, with income of 70.6 million Euros providing an average of 42.80 per full time equivalent. Survey results showed that 71% of direct jobs generated by Cork Airport were permanent full-time positions while 18% were permanent part time positions and 11% were seasonal positions.

Similarly, The National Council of Applied Economic Research[9] assessed the impact of Chhatrapati Shivaji International Airport (CSIA) Mumbai, India. A primary survey of more than 4,000 passengers (domestic and international arrivals and departures) was carried out to obtain the profiles of users of airport services. Primary survey of freight service providers, airlines, retailers/ concessionaries and government operating in the airport was conducted. Data was computed using data from Airport Authority of India. Percentage was used to present the data in terms of contribution to employment. CSIA's operations directly and indirectly generated 460,000 jobs in 2009 which is 0.100 percent of the national employment and relatively 0.94 percent to Maharashtra's employment. In terms of employment contribution CSIA's operation sector contributed 1,403,000 (0.3 percent of the national employment in 2009-2010. As a ratio to Maharashtra's employment it was 2.86 percent. The total comprises 45,000 directly contributed jobs, 415 indirectly contributed jobs through supply chains (multiplier Impact) 943,000 jobs in induced impact through tourism and investment.

Furthermore, a study was carried out by Nwaogbe et al.[3] to describe the significance and the catalytic nature of Air transport/ Aviation sector for the Nigeria and global economic development through job creation, tourism and facilitation of global trade. The objective of this study was to examine the impact of air transport to economic development through income generation, trade and other social opportunities to Nigeria. After all research work, the results obtained showed that aviation industry plays an important role in the aspect of work and leisure to people around the globe and also helps to promote and improve quality of life and living standards of people within the nation. All these impacts of the air transport help to generate economic growth and reduce poverty by providing employment opportunities and increasing revenues from taxes. The employment opportunities would be generated through supply chain transformation from the airports. The paper analysed the contribution of the various areas of the air transport sector through these routes; Direct, Indirect, Induced and Total percent (%) of whole economy Contribution to GDP (NGN billion).

The contributions were as follows; Airlines contributed 29, 17, 11, 58, and 0.2%; Airports and Ground Services contributed 29, 16, 16, 61, and 0.2%; then total of 58, 34, 27, 119, and 0.4%; Catalytic (tourism) also contributed 40, 24, 15, 78, and 0.3%. The total including catalytic are 98, 57, 42, 197, and 0.6%. While the contributions to employment (000s) are Airlines 7, 33, 21, 61, and 0.1%; Airports and Ground Services contributed 37, 31, 30, 97, and 0.2%. The total for airlines, airports and ground services were; 44, 64, 51, 159, and 0.3%; Catalytic (tourism) contributions were; 64, 37, 29, 130, and 0.2%; for the total including catalytic are 108, 101, 80, 289, and 0.5%. These airlines operating in Nigeria, directly contributed around NGN 29 billion to the Nigerian economy (GDP). The sector contributed indirectly another NGN 17billion through the output it supports down its supply chain. A further NGN 11 billion came from the spending of the employees of the airlines and their supply chains.

Overall, these airlines contributed over NGN 58 billion to the economy and supported 61,000 jobs in Nigeria. The Aviation's ground-based infrastructure employed 37,000 people and supports through its supply chain a further 31,000 jobs. These indirectly supported jobs include, for instance, construction workers building or maintaining facilities at airports and other ancillary services. A further 30,000 jobs were supported by the spending of those employed by the aviation industry's ground-based infrastructure and its supply chain. The ground-based infrastructure directly contributed NGN 29 billion to the Nigerian economy.[3]

In a bid to know the extent of the direct on employment and the direct off employment and the indirect employment of Heathrow Airport limited on its host, Optical Economics[10] undertook a survey of employers and employees within the airport boundary. Field work result revealed that Heathrow employed 76,640 people who earned wages and salaries of £2billion. Survey result further showed that all the on Airport employed and work-force were within the five local authorities which are closest to the airport. In estimating the direct off Airport, they identified the proportion of direct off airport companies through internet searches of appropriate business categories such as hotels, freight agents in each of the five districts and undertook a telephone survey of the businesses to determine the level of employment and the extent to which the business is dependent on the airport. Survey results were used to provide an estimate of the direct-offs employment. From the results, it was estimated that 7,700 people were employed in the area around Heathrow in activities which were directly related to the operation of the Airports. To calculate the indirect employment, they identified the sample of companies involved in all aspects of the operation of the Heathrow e.g. airlines, building and maintenance, retail, and catering, transport, provisions etc. These companies were introduced to the survey and company's participation. A phone survey was undertaken to determine the type of goods and services of these businesses in the local area and level of expenditure on purchases in the local, regional and National economies; The result from the survey was used to estimate the total expenditure of these companies and the average expenditure per employee for the different categories of companies e.g. airlines, catering companies etc. To cover all the businesses at the Airport, they applied average expenditure per employee to the total number of employees at the airport on the different categories of companies; the indirect employment was estimated by applying the ratio of output per each sector to estimate the total expenditure. From these results, the Heathrow Airport generated a total employment 11,100 people and a Gross value added of £0.636 billion in a year.

Green[4] in his study used regression equations to test whether the activity at a metropolitan area's airport helps predict population and employment growth. The study used various measures of airport activity, including boarding, originations, hub status, and cargo volume. It also included additional explanatory variables for airport

activity, including proximity to a city with a large or medium hub, per capita income, and industrial structure. Since Airports may be a function of, as well as a cause of, growth, the article used an instrument variable approach to account for this. The study showed that, under a variety of specifications, passenger activity is a powerful predictor of growth, but cargo activity is not. This result is also supported by another study by Brueckner.[11] Specific measures of airport activity used in the study were: boarding and passenger originations per capita in each metro area from FAA data; Presence of an airport that is a hub for a major carrier; Cargo activity. This study's strength is that unlike some other analyses based on regression models; this one used a wide range of economic and demographic factors as control variables because these factors can also affect economic development in the region. Some of the factors considered were property, corporate and income tax rates, heating and cooling degree days, the share of the population over the age of 25 with high school diplomas, the share with college degrees, the share of employment in the finance, insurance and real estate (FIRE) sector; the share of employment in the manufacturing sector, the population in 1990; whether the state is a right-to-work state (has unions or not) and average commuting time in the region. All variables were from 1990, and the data was primarily obtained from the 1990 census of population and housing. The reasons for including these variables were mentioned in the study. For example, tax rates and education levels of the residents are known to have an impact on regional economic development.

The shares of employment in the fast-growing fire sectors and relatively slow-growing manufacturing sectors also have an impact. Warmer and milder weather in the southern and western regions of the country and right to work laws impact the location of employment and workers and hence, the growth of employment in these regions. Commuting time was also included because it can affect economic growth in large cities if it is high enough to reflect congestion and negative externalities. The results of this analysis indicate that passenger boarding per capita and passenger originations per capita in the nation's largest metropolitan areas are powerful predictors of population growth and employment growth. The study found that one standard deviation increases in boarding per capita produces an 8.0% increase in employment growth. Hub cities saw employment grow between 8.4% and 13.2% faster than in non-hub cities. However, there was no impact on cargo activity. The author uses the example of two large cargo hubs, Memphis (the home of Federal Express) and Louisville (the home of UPS), neither which are fast-growing MSAs, to explain that while business travellers serve high value "knowledge-based businesses," those that ship cargo contribute to lower value economic activity. While anecdotal evidence shows that companies have located warehouses near Memphis and Louisville, warehouses have become increasingly automated and warehouse and distribution jobs are not high-wage jobs. Therefore, the author concluded that, cargo has little predictive power for economic development.

Oxford Economics[12] assessed the Economic Benefits of Air Transportation in India. In this study, they described and quantified a number of channels through which aviation in India generated important economic benefits for its customers and the wider Indian economy. The welfare of travelling citizens was conservatively quantified in this study. As was reported, not all customers of airlines serving Indian airports were Indian residents, but approximately 76% were. They currently get an economic benefit estimated to be worth INR 832billion. Indicatively, 45% shippers using air freight services were Indian companies. Taxing air transport directly reduces the welfare of these Indian residents and Indian businesses. The study also showed that India's air transport network was a critical asset to business and the wider economy. Connectivity between cities and markets boosts productivity and provides a key infrastructure on which modern globalized businesses depend. Many of these city-pair connections are dependent on hub airports which generate the traffic density necessary to sustain them. All airlines supplying services at Indian airports contribute to generating these wider economic benefits. Indian-based airlines were responsible for carrying 71% of passengers and 78% of freight. The wages, profits and tax revenues created by these airlines flow through the Indian economy, generating multiplier effects on Indian national income or GDP.

The economic benefits for India created by non-Indian airlines were to be found in customer welfare and in the part these airlines play in providing the connectivity infrastructure between India and overseas cities and markets. Aviation has a significant footprint in the Indian economy, supporting 0.5% of Indian GDP and 1,723,000 jobs or 0.4% of the Indian workforce. These figures rise to 1.5% of Indian GDP and 8.8 million jobs, or 1.8% of the workforce. Also significant is the fact that these are high productivity jobs. The annual value added (or GVA) by each employee in air transport services in India is INR 1.3million, approximately 10 times higher than the Indian average of INR 127,000. Tax revenues from aviation are substantial. Indian-based aviation companies paid INR 87.5 billion annually in direct taxes and social security payments. It is estimated that an additional INR 9.8 billion of government revenue is raised via the aviation sector's supply chain and INR 7.1 billion through taxation of the activities supported by the spending of employees of both the aviation sector and its supply chain. All together these points demonstrate that aviation provides significant economic benefits to the Indian economy and its citizens, some of which are unique and essential to the operation of modern economies.[12]

Smith[13] researched on the economic impact of commercial airports in 2010. This economic impact study summarises the contribution that the 490 commercial airports in the U.S. make to the national economy, based on a regression analysis of data from more than 75 State and individual airport economic impact studies. Economic impact studies were grouped into; direct, indirect, induced and multiplier effect. Induced impacts were those of employees of direct and indirect businesses who spend part of their earnings on goods and services while indirect impacts dealt with businesses spending on expenses from suppliers. Direct impact data was found for only 272 out of the 490 commercial Airport and analysed using regression analysis independent variables obtained for each airport included: Passenger enplanements, from FAA NPIAS data; various types of aircraft operations from FAA ATADS data; to establish linear relationships, population, employment, and total income tied to each Airport's associated city.

On-airport employment was very strongly correlated with air carrier and air taxi operations data (correlation coefficient=0.96); and moderately correlated with city level employment (0.59); On-airport payroll was very strongly correlated with enplanements (0.93); On-airport output was very strongly correlated with air carrier operations (0.96); Visitor expenditures were very strongly correlated with total passengers (0.93); Capital improvement expenditures were very strongly correlated with airport employment (0.93). Once direct impact data was available for all five dependent variables, the data was entered into an economic model (IMPLAN) to estimate multiplier impacts. The IMPLAN model was used to quantify the nationwide multiplier effects of all the 490 commercial airports. The study analysis found that the 490 commercial airports in the U.S. have the following impacts: Support 10.5 million jobs, create an annual payroll of $365

billion, produce an annual output of $1.2 trillion. 44, 64, 51, 159, and 0.3%; Catalytic (tourism) contributions are 64, 37, 29, 130, and 0.2%; for the total including catalytic are 108, 101, 80, 289, and 0.5%. The following objectives were the targets of this paper; to investigate the level of direct and indirect employment of host communities in Obong Victor Attah International Airport.

Research questions

To what extent has the Obong Victor Attah International Airport, generated employment for the host communities?

Hypothesis

The following null hypothesis would be tested;

H_O=Obong Victor Attah International Airport does not significantly influence employment generation.

Materials and methods

Study area

The Ibom International Airport was renamed to Obong Victor Attah International Airport on 24/11/2018 by the state government and is an Airport in Akwa Ibom State, Nigeria, this Airport is hosted by three (3) local governments which constitute the study area. They are Okobo, Nsit Atai, and Uruan Local Governments. The area is located within the coordinates 8.00E-8.50E and 4.500N and 4.550N (Figure 1).

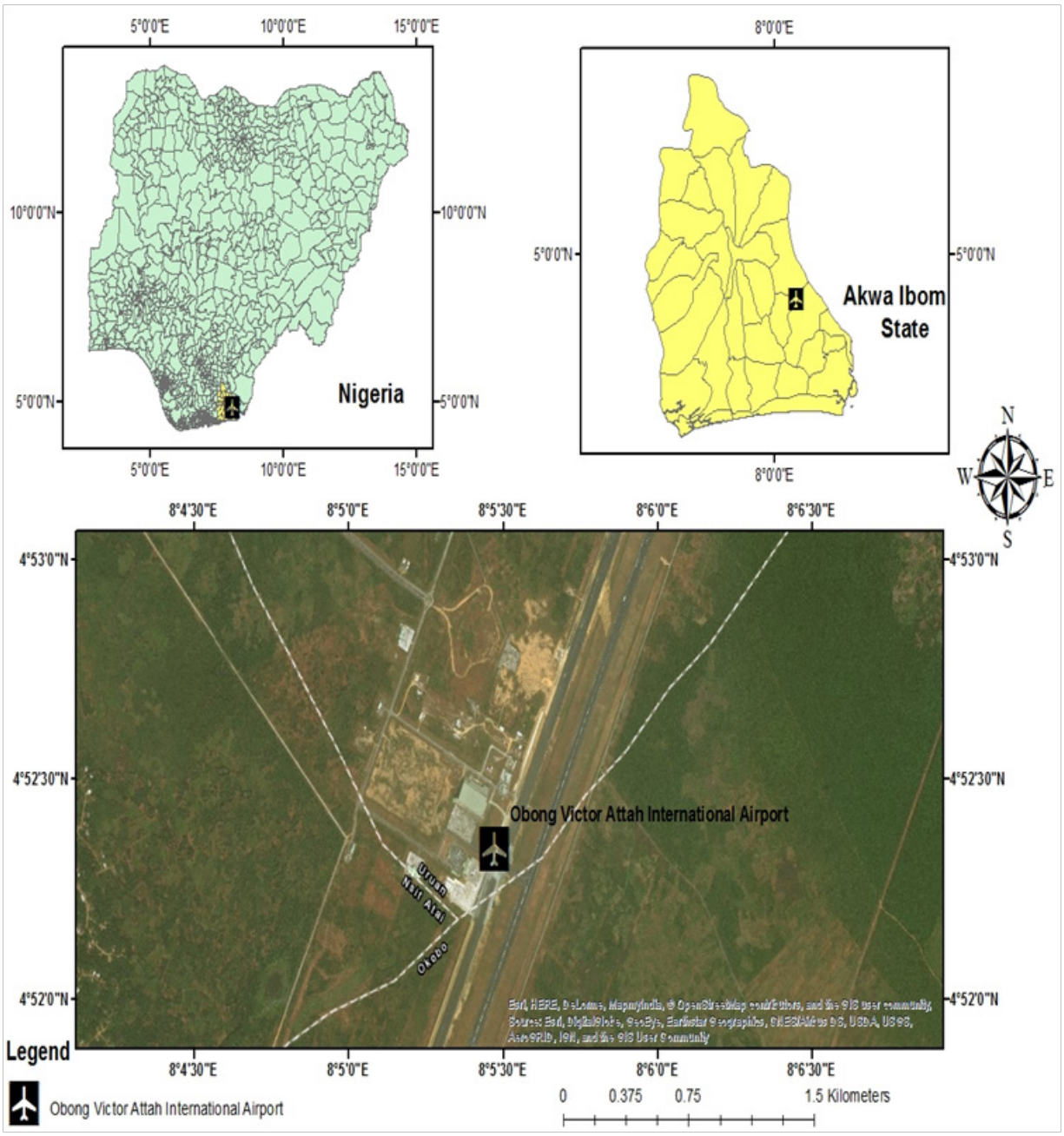

Figure 1 Akwa Ibom state showing the study area.

People and population

The people are mainly Ibibio's, with Ibibio language as the major spoken language. Ibibio constitute the largest ethnic group in Akwa Ibom state. According to projected population of 2015 by the Ministry of Economic Development Uyo, Akwa Ibom State, Nsit-Atai has a population of 99,164, with 50,242 males and 48,922 females. Okobo has a population of 138,828; made up of 70,790 males and 68,038 females. Uruan, has a population of 95,576 this is composed of 48,920 males and 46,656 females. Population of the study area was vital to the study because population is pivotal to the development of any region.

Sampling procedures and methods of data collection

Sampling procedures: Table 1.

Table 1 Sample population

Local governments	Projected population (2017)	Percentage represented (%)	Villages projected population (2017)
Okobo	134, 264	35%	Egbghi Eta 1,848 NungAtai 7, 232 Ammong 20,534 **Total 29614.**
Uruan	153,101	39.9%	EkpeneUkim 14,774 IshietEkim 4,657.12 NdonEbom 17,046 Esukinwang 2,199 **Total 38676.**
NsitAtai	95,903	25.02%	IkotInyang 948 Idibia 21,299 NdonEkpe 698 Ikotmkpo 587w **Total 23,533.48**
Total	383, 268	99.9%	**91,822.92**

Source: 2017 Population projected from 2006 National population census (NPC, 2006).

Sample size: The Taro Yamane Formula was used

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

$$\mathbf{n} = \frac{91{,}822.92}{1+91{,}822.92(0.05)2}$$

$$\mathbf{n} = \frac{91{,}822.92}{1+91{,}822.92(0.0025)}$$

$$\mathbf{n} = \frac{91{,}822.92}{959.17} \qquad \mathbf{n = 399.6 \approx 400}$$

Based on this a total of 400 respondents was the sample size. Table 2 shows the percentage of questionnaire administration.

Table 2 Questionnaire administration

LGA	Percentage (%)	Sample size
Okobo	32.25	129
Uruan	42.11	168
NsitAtai	25.6	103
TOTAL	100	400

In administrating the questionnaire, quota system was used. The LGA's were given questionnaires based on their percentage contribution to the total population. Okobo was given 32.25% (129) of the questionnaires, Uruan was given 42.11% (168) and Nsit Atai was given 25.6% (103) of the questionnaires respectively. A systematic sampling technique was employed in selecting households to be sampled.

Table 3 presents the communities where the respondents were drawn. A five kilometres (5km) buffer was drawn around the Obong Victor Attah International Airport and all the communities were listed according to buffers (1km, 2km, 3km, 4km, 5km). A buffer was used to delimit the study area to enable the research study the distance decay in the area of employment. Ten percent of the communities were selected at random from each of the buffer levels. Ten percent is the minimum level for any sample to considered valid.[14] The buffer map is presented in Figure 2.

Table 3 Community of residence of respondents

Community of residence	Number of respondents
Amammong	88
EbighiEtai	9
EkpeneUkim	64
EsukInwang	7
Idiabia	90
IkotInyang	4
Ikotmkpo	4
Ishiet	22
NdonEbom	74
NdonEkpe	4
NungAtai	33
TOTAL	400

Source: Field data (2017).

Method of data collection

The following variables were sought for socio-economic information using structured questionnaires; socio-demographic information i.e. employment (Table 4).

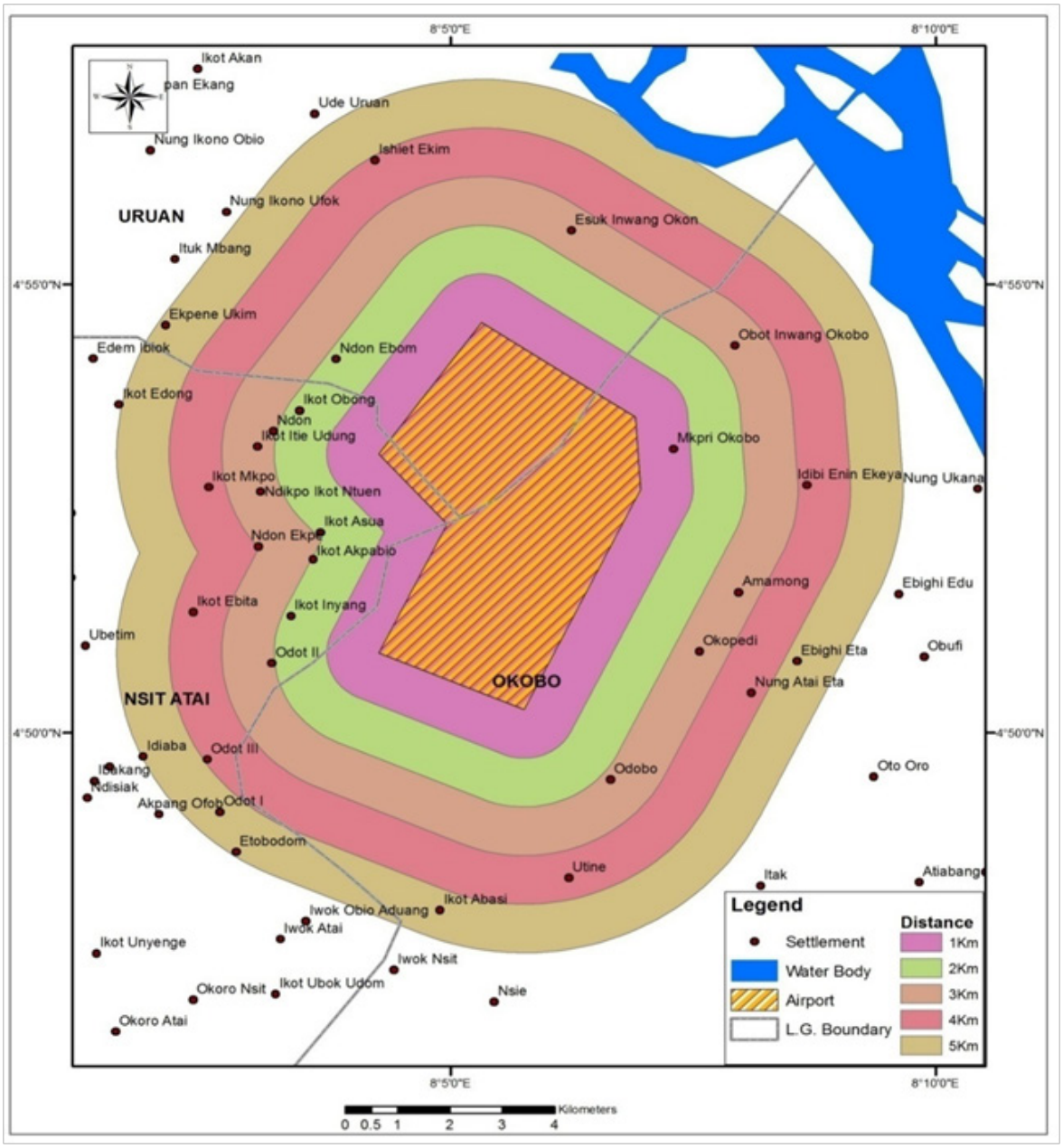

Figure 2 Buffer map of communities 5km from the airport.

Table 4 Data set and method of collection

(i) Socio-demographic information

Variable	Method of data collection
Gender	Structured Questionnaire
Marital status	Structured Questionnaire
Levels of education	Structured Questionnaire
Religion	Structured Questionnaire
Community	Structured Questionnaire
Employment Status	Structured Questionnaire
Family Size	Structured Questionnaire

Citation: Adindu IB, Udoh JC, Olalekan RM. Determinants of obong victor attah international airport, Akwa Ibom state on the employment status of the host communities. *Art Human Open Acc J.* 2019;3(4):175–188. DOI: 10.15406/ahoaj.2019.03.00127

Table Continued....

(ii) Employment

Variable	Indicators	Method of data collection
Direct employment (+Jobs directly dependent on airport they are also seen as the airport on- site activities	Number of pilots, the air traffic controllers, Air hostesses, Ticket sellers, luggage handlers, aircraft maintenance, logistics, freight agents, flight caterers	Data was collected from airport authority. On numbers of employees and their designations. Number of employees who are natives of the host communities was also collected.
Indirect employment (off- site firms that serve airport users)	Number of: security personnel's, aviation handlers, canteen, car hire services, cargo operators, grass management	Face to face interview on people who are indirectly employed by the airports was conducted. Questionnaires was also given to them.

Method of data analysis

Descriptive and inferential statistics were the major method of analysis used. Percentages and charts and maps were used to describe the extent of impact the airport has on employment of on host communities. Data collected on each of the variables were mapped to indicate their strength with distance.

Result

Demographic characteristics of respondents

This section presents the demographic characteristics of the sampled population in the study area. Figure 3 shows the distribution of the sampled respondents among the three Local Government areas that serve as host communities to the Airport. Uruan had 168 respondents, Okobo had 129 respondents and Nsit-Atai had 103 respondents. The number of respondents were obtained from the percentage contribution of the LGAs to the general population. As shown in Figure 4, 236 respondents representing 59 percent of the study constituted the male gender while 164 respondents representing 41 percent constituted the female gender. This population was drawn randomly in the study population based on the availability and willingness of respondents to fill the data collection instrument. Figure 5 showed that 3 percent of the respondents (study question recipients) had non-formal education, 35 percent were primary school leavers, 54 percent were secondary school leavers, 7 percent were degree holders while 1 percent had no education at all. Education is an indicator of the level of understanding of the questions presented to the respondents.

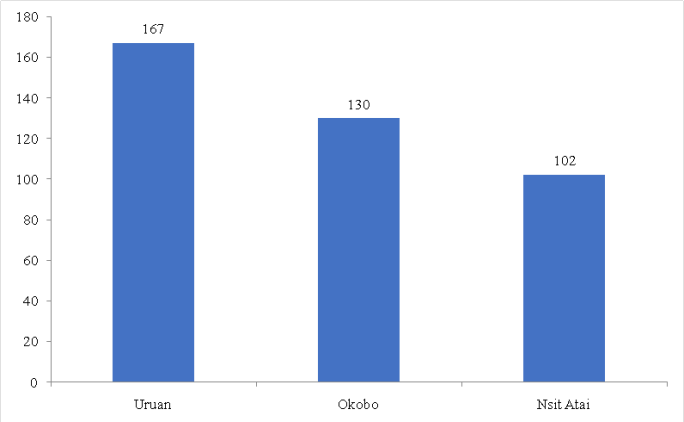

Figure 3 Distributions of respondents.

Source: Field Data (2017).

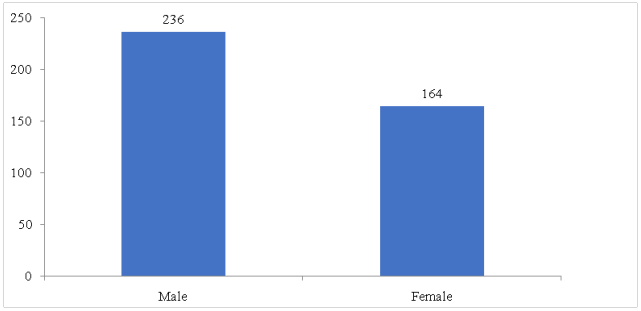

Figure 4 Sex of respondents.

Source: Field Data (2017).

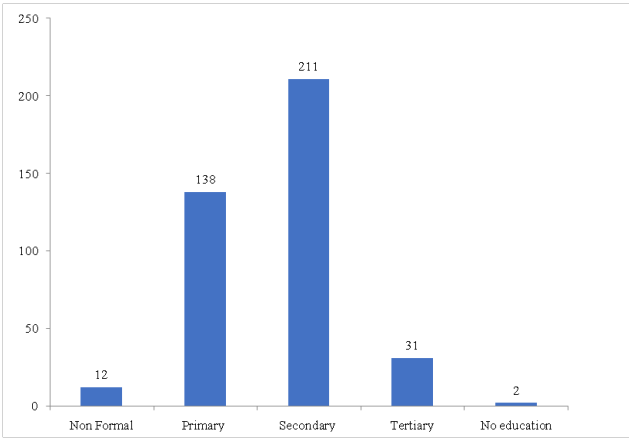

Figure 5 Level of education of the respondents.

Source: Field Data (2017).

Table 5 presents the communities where the respondents were drawn. A five kilometres (5km) buffer was drawn around the Obong Victor Attah International Airport and all the communities were listed according to buffers (1km, 2km, 3km, 4km, 5km) and ten percent of the communities were selected at random from each of the buffer levels. 10 percent is the minimum level for any sample to considered valid.[14] Figure 6 shows the buffer map. As shown in Figure 7, 40 percent of the respondents had family sizes of between 5-10 persons, 33 percent between the sizes of 1-4, 24 percent between the sizes of 11-14 and 3 percent had family sizes of above 15. A large proportion of the respondents had family size of between 5 and 10 and the average family size was 8. The large proportion of this family size could be as a result of employment and steady income generated from economic activities through which the respondents could adequately cater for their family.

Table 5 Community residence of respondents

Community of residence	Number of respondents	Buffer distance
Ndon Ebom	74	3km
Ekpene Ukim	64	5km
Ishiet Ekim	22	5km
Esuk Inwang	8	3km
Ammamong	88	5km
Nung Atai	33	2km
Ebighi Eta	9	4km
Ikot -Inyang	4	4km
Idiabia	90	2km
Ndon Ekpe	4	2km
Ikot Mkpo	4	4km
Total	400	

Source: Field Data (2017).

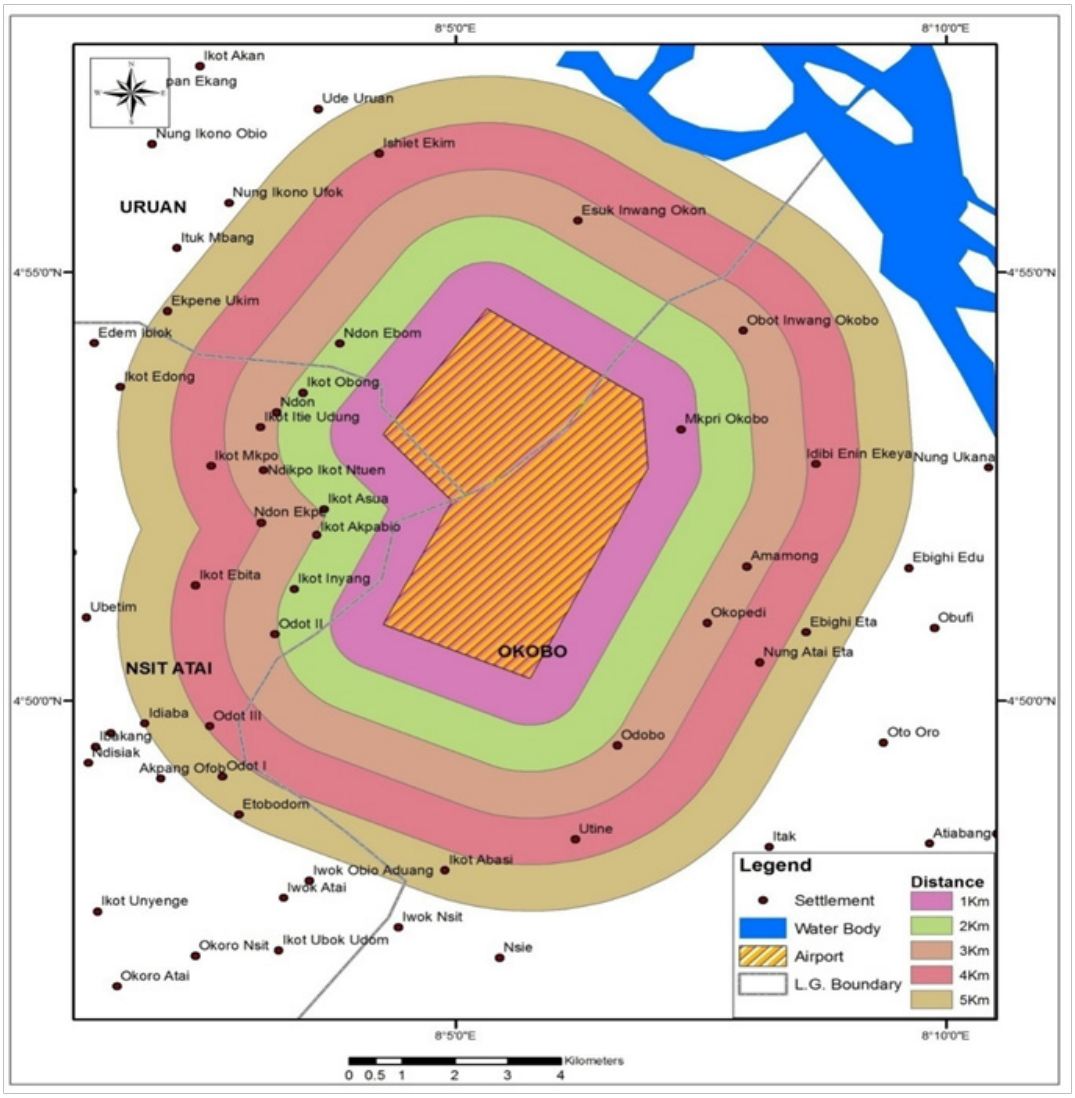

Figure 6 Buffer map of communities 5km away from the airport.

Citation: Adindu IB, Udoh JC, Olalekan RM. Determinants of obong victor attah international airport, Akwa Ibom state on the employment status of the host communities. *Art Human Open Acc J.* 2019;3(4):175–188. DOI: 10.15406/ahoaj.2019.03.00127

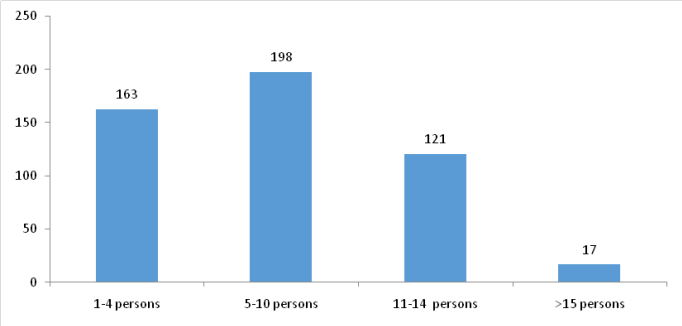

Figure 7 Family size of respondents.

Source: Field Data (2017).

As shown in Figure 8, married respondents with 245 representing 60.8 percent constituted the highest group of respondents followed by single respondents (138, 35 percent), widowed (4 percent) while separated respondents made up 1 percent. The high percentage of married respondents may result from improved standard of living and income generated from economic activities in the study area. As shown in Figure 9, six percent of the respondents were less than 18 years, 22 percent of the site workers were between the ages of 18-24years, 20 percent were 25-29years of age, 27 percent were between 30-39years while 25 percent were above 40 years of age. The respondents between the ages of 30-39 made up a total number of 109 respondents representing 27 percent of the study. This indicated that the respondents are within the productive age limit which is a chief determinant of productivity. As shown in Figure 10, 31.5 percent (125) of respondents could afford to build and live in their personal houses, 43.6 percent (175) rented an apartment while 25.2(125) were either squatting or occupying for a short period. This indicated that income from the economic activities enabled some of the respondents to get their personal houses while others rented apartments.

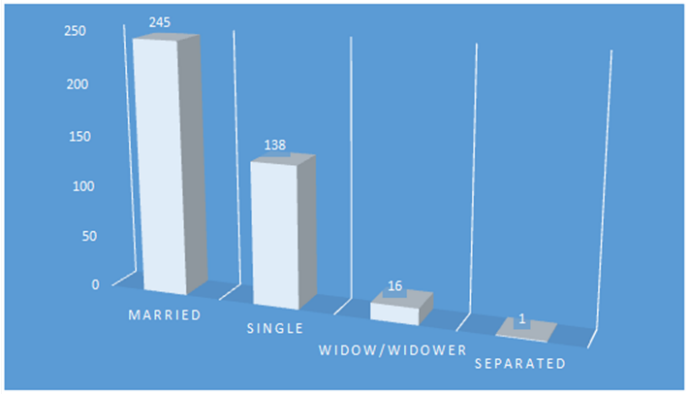

Figure 8 Marital status of respondents.

Source: Field Data (2017).

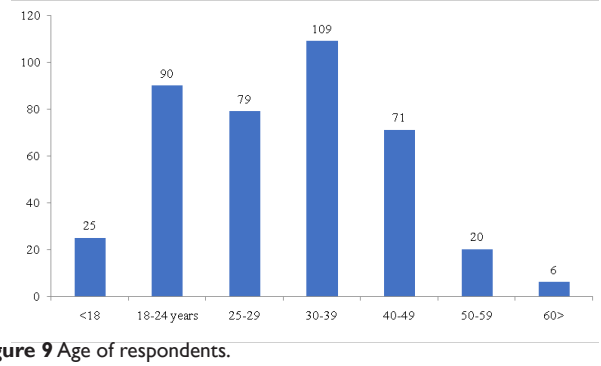

Figure 9 Age of respondents.

Source: Field Data (2017)

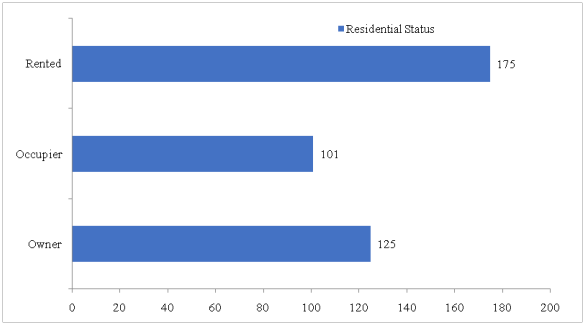

Figure 10 Residential status of respondents.

Source: Field Data (2017)

Determinants of airport on employment generation

Data for both direct and indirect employment generation were collected and analysed for the study area. Based on the secondary data collected since the inception of the Obong Victor International Airport, there has been two recruitment processes. The Tables 6–9 present the number of direct recruitments for the three LGAs which serve as host to the Airport as extracted from the data obtained.

Tables 6–9 showed the numbers of people from the three Local Government Areas that host the airport that were directly employed in the airport. The information showed that out of the 458 employees employed by the airport in 2013, 48 (10 percent) were from the host communities while in 2017, 58 (13 percent) out of the 446 were from the host communities. These figures indicate that the people employed from the host community are few compared to those who are not from these communities. This could be attributed to the fact that the host communities may not be able to produce all the personnel needed by the airport especially in terms of qualification and specialization. Table 10 showed the numbers of people who are indirectly employed in the Airport across the three (3) LGA's. The table detailed the nature and type of job of these indirect employments.

Table 6 Direct employment for Uruan L.G.A in the Obong victor attah international airport

CADRE	Number of persons employed in Uruan LG A	Salary frade level	Category of staff
Estate Management (Foreman)	1	9	Senior Staff
	1	6	Junior staff
Logistics (head porter)	1	4	Junior staff
Airport maintenance Engineer	2	10	Senior staff
Air Traffic Engineer	2	9	Senior Staff

Table Continued....

CADRE	Number of persons employed in Uruan LG A	Salary frade level	Category of staff
Operations (Apron control)	1	10	Senior Staff
	2	9	Senior Staff
Marshalling	1	6	Junior staff
Aviation Security	3	7	Senior Staff
	1	10	Senior Staff
	2	2	Junior staff
Airport Rescue and Fire Fighting	2	10	Senior staff
	2	8	Senior Staff
	3	7	Senior Staff
	2	6	Junior Staff
	1	5	Junior Staff
Search/Rescue	1	10	Senior staff

Source: IADC (2017).

Table 7 Direct employment for Nsit-Atai L.G.A in the Obong victor attah international airport

CADRE	Number of persons employed in Nsit-Atai	Salary grade level	Category of staff
Driver	1	5	Junior staff
	1	6	Junior Staff
Accounts	1	7	Senior staff
Avionics (Scientist)	1	9	Senior Staff
Safety management	2	10	Senior Staff
Aviation Security	2	7	Senior Staff
	1	6	Junior Staff
Airport Rescue and Fire Fighting	1	10	Senior Staff
	1	7	Senior Staff
Search/Rescue	1	10	Senior Staff

Source: IADC (2017).

Table 8 Direct employment for Okobo L.G.A in the Obong victor attah international airport

CADRE	Number of persons employed in Okobo	Salary grade level	Category of staff
Driver	1	6	Junior staff
	1	5	Junior Staff
	1	4	Junior Staff
Airport Maintenance Engineer	1	10	Senior Staff
Air Traffic Engineers	2	9	Senior Staff
Technical Officer	1	9	Senior Staff
	1	9	Senior Staff
Marshalling	1	6	Junior Staff
Aviation Security	2	6	Junior Staff
	1	5	Junior Staff
Airport Rescue and Fire Fighting	6		Junior Staff

Source: IADC (2017).

Citation: Adindu IB, Udoh JC, Olalekan RM. Determinants of obong victor attah international airport, Akwa Ibom state on the employment status of the host communities. *Art Human Open Acc J.* 2019;3(4):175–188. DOI: 10.15406/ahoaj.2019.03.00127

Table 9 Direct employment for Okobo, Uruan and Nsit-atai L.G.A in the Obong victor attah International airport

CADRE	Nsit-atai	Okobo	Uruan	Grade level	Category of staff
Conf Sec 11			1	8	Senior Staff
Clerical officer11			1	4	Junior Staff
Senior Driver Mechanic			2	5	Junior Staff
Driver	2	1	3	4	Junior Staff
AEO(Accounts)	1			6	Junior Staff
Airport Maintenance Engr		2	2	8	Senior Staff
Air Traffic Engineer		2		8	Senior Staff
Power Plant Engr	2			8	Senior Staff
Avionics Engr	1	1	2	8	Senior Staff
Apron Control			3	8	Senior Staff
Marshaaller		1		4	Junior Staff
Safety Management officer Assistance	2		1	7	Senior Staff
Aviation Security Superintendent	1		1	7	Senior Staff
Aviation Security Cadet			3	6	Junior staff
Aviation Sec Patrol Man 11	2			5	Junior Staff
Airport Fire Officer	1		2	8	Senior Staff
Assistant Airport Fire Superintendent			1	6	Junior Staff
Fire Man		6	1	4	Junior Staff

Source: IADC (2013).

Table 10 The indirect employment for the study area

Company	Job description	Number employed
Skye way aviation handling	Loading and offloading luggage, handling of flights/	15
Spectrum security	Security functions, protection of life and property	70
Focus car hire service	Hotel booking, car hire services	4
NAHCO	Baggage handling, airline handler, steps supply	9
Domestic Airport Cargo Agencies (DACAA)	Cargo operation, way bill	9
Grass management	Trimming and cutting of grass and flowers	60
VISIVIEW canteen	Production of snacks, bottle water and food, serving passengers during flights	7
Total		173

Source: Field Data (2017).

Table 11 shows the number of respondents employed in the study area relative to distance from the Airport. The spread of employed respondents is irregular as shown on the table. This is an indication that airport may not be the major source of employment for people in the study area.

Table 11 Employment status of respondents

L.G.A	Distance(Km)	Employed
Ndon Ebom	2	48
Ekpene Ukim	5	61
Ishiet Ekim	4	16
Esuk Inwang	3	7
Ammamong	3	48
Nung Atai	4	13
Ebighi-Eta	5	6
Ikot Inyang	2	3
Idiabia	5	52
Ikot Mkpo	4	3
Ndon Ekpene	5	3

Source: Field Data (2017).

Figure 11 shows the number of respondents employed in the study area relative to distance from the Airport. The spread of employed respondents is irregular (see Appendix). This is an indication that the Airport may not be the major source of employment for people in the study area. Figure 12 shows the impact employment with distance. This analysis is contrary to the distance decay model as the numbers of employment should be higher at distances close to the airport. From the buffer, a greater number of respondents in Uruan who are self-employed are found in 5km buffer distance with the least numbers at 3km buffer. Numbers of respondents in this L.G.A who are unemployed decreased with distance with a greater number in 2km distance and the least numbers at 5km buffer distance. The employed respondents are same for distances 2km and 5km and least at 3km buffer distance. In Nsit-atai L.G.A, the highest number of unemployed, self-employed are found at 5km distance. In Okobo L.G.A, the numbers of respondents who are; employed, unemployed and self-employed declined from 3km to 5km.

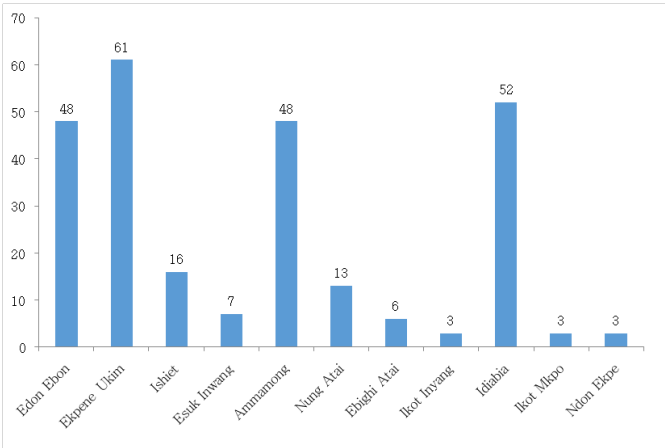

Figure 11 Employment status of respondents.

Source: Field Data (2017)

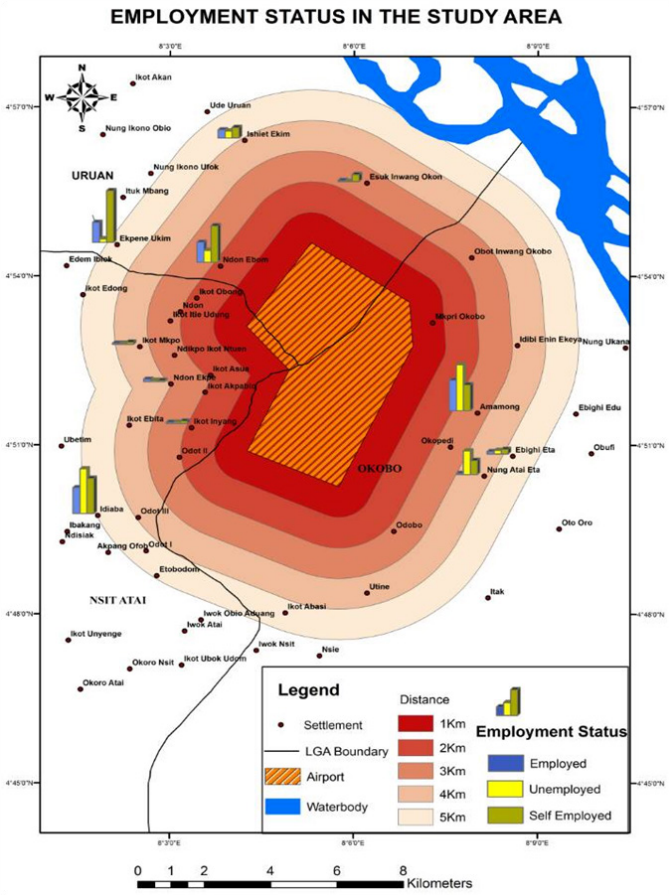

Figure 12 Showing the impact of employment with distance.

Test of hypothesis

A certainty in the study was needed to affirm if Obong Victor Attah International Airport contributed significantly to employment status of the selected host communities. Hence this hypothesis was tested H_o=Airport does not significantly influence employment status of the selected host communities. Information on the relationship between Airport and employment were subjected to simple linear regression using SPSS version 20. The results indicated that the R which was the correlation between the observed (Airport) and predicted dependent variables (Employment) was low for employment (22.6%) and the R-Square or coefficient of determination indicated that the Airport contributed poorly to; employment (6.9%). The magnitude and influence of these variables are shown by the B values. The positive B values for employment shows a positive contribution of the Airport. The proportion of variance in the dependent variable (employment) which was explained by the independent variable (Airport as represented by the distances from the Airport) is -35%. Based on the low (weak) correlation indicated by the R coefficient for employment, it was concluded that Obong Victor Attah International Airport was not an important factor or a major determinant of employment in the host communities (Uruan, Okobo and Nsit-Atai LGA's of Akwa Ibom State) (Table 12).

Table 12 Summary of simple linear regression analysis of the impact of the Obong Victor attah international airport on employment

Indicator	R	R2	ADJ R2	STD ERR	SIG	B	F
Employment	0.262	0.069	-0.035	23.69	0.436	0.262	0.083

Analysis by author (2017).

Citation: Adindu IB, Udoh JC, Olalekan RM. Determinants of obong victor attah international airport, Akwa Ibom state on the employment status of the host communities. *Art Human Open Acc J.* 2019;3(4):175–188. DOI: 10.15406/ahoaj.2019.03.00127

Discussion of major findings

The discussion of major findings of the study were based on the analyzed objectives.

The influence of obong victor attah international airport on employment generation

The study on the influence of Obong Victor Attah International Airport on the employment generation for the host communities revealed that out of 458 employees employed by the Airport in 2013, 48 (10 percent) were from the host communities while in 2017, 58 (13 percent) out of the 446 were from the host communities. The study also indicated that the Airport contributed to the generation of 173 indirect jobs. These figures indicate that the people employed from the host community were few. The R^2 co-efficient showed that the Airport contribute 6.9%. This poor number might be attributed to the fact that the host communities could not produce all personnel needed by the airport especially in terms of qualification and specialization. This further indicates that the Airport is not a major determinant of employment in the study area. This is in line with the studies carried out by the National Council of Applied Economic Research,[9] where impact of Chhatrapati Shivaji was assessed using percentages. Data was presented in terms of contribution to employment. Their result revealed that; CSIA's operations directly and indirectly generated 460,000 jobs in 2009 to which is 0.100 percent of the national employment and relatively 0.94 percent to Maharashtra's employment. In terms of employment contribution CSIA's operation sector contributed 1,403,000 (0.3 percent) of the national employment in 2009-2010 as a ratio to Maharashtra's employment it was 2.86 percent. The total comprises 45,000 directly contributed jobs, 415 indirectly contributed jobs through supply chains (multiplier Impact) 943,000 jobs in induced impact through tourism and investment. The study results are also in line with the study of Olalekan and Adindu,[5] Ihuoma and Raimi,[6] Raimi et al,[13] Nwaogbe et al,[3] where they tried to show the contributions of air transport to the economy of Nigeria. Their results show that airlines contributed over NGN 58 billion to the economy and support 61,000 jobs in Nigeria. The Aviation's ground-based infrastructure employed 37,000 people and supports through its supply chain a further 31,000 jobs. These indirectly supported jobs include, for instance, construction workers building or maintaining facilities at airports and other ancillary services. A further 30,000 jobs were supported by the spending of those employed by the aviation industry's ground-based infrastructure and its supply chain. An assessment of the total number of employed respondents show that the spread of employment relative to distance is irregular this is also in line with the hypothesis test results which revealed that Airport contributed 26% to employment. This implied that the airport is not a major determinant of employment. The respondents could be engaged in other forms of activities other than being dependent on the Airport.

Conclusions

Airport systems has become an integral part of mobility in Nigeria. Interestingly, the airports and the associated air transportation of this country have become a vital element of the Nigerian people. ln some respects, the airport has become like the electric light switch. It is extremely important to our quality of life, expected. to operate perfectly on demand, almost crucial to the Nigerian environment and culture; and yet the airport is frequently taken for· granted by many people particularly the communities where these airports are located. The airport should be viewed by its community as a transportation link with every other airport in the world, an important employment center, a valuable tool for attracting new industry and jobs for youths,[13] an additional source of tax revenue and a stimulus for increased local sales and general business activity. This study contributes to new knowledge regarding the establishment, application and monitoring of the economic value, socio-cultural and environmental impacts of airport to tourism, local stakeholders can access the necessary information to develop current and future airport policy and tourism planning. While the outcomes of this study have provided new material and understanding regarding activity of airport in Akwa Ibom State, Nigeria. Also, evidence informed planning for airport has now been considered the way forward to help strengthen and ensure future sustainability. However, the findings of the study showed that the people employed from the host community are few. This implied that though the airport is a source of employment in the state, the Obong Victor Attah International Airport does not contribute significantly to employment generation in the host communities.

Recommendations

Based on these findings, recommendations are suggested in order to increase the influence of the Obong Victor Attah International Airport on the host communities as follows:

The findings from the study showed that the people employed from the host communities were few. This implied that though the Airport is a source of employment in the state, the Obong Victor Attah International Airport does not contribute significantly to employment and income generation in the host communities. It is recommended that the number of people employed by the Airport from the host community be increased. This will increase the economic level of the members of the host communities. On the other hand, members of the host communities should be engaged in self-development to enable them stand better chances of being employed in the Airport. Furthermore, Obong Victor Attah International Airport, Akwa Ibom State should establish a positive and active public relations program to enable the community to know what is happening at the airport.

Acknowledgments

None.

Conflicts of interest

The authors declare that there are no conflicts of interest.

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