



Ecotourism Development and Poverty Alleviation in Doguwa Local Government Kano, Nigeria

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Abstract

Original Research Article

Kano state, specifically Doguwa local government possess enormous ecotourism attractions where stakeholders make effort to develop ecotourism in the area, through the provision of necessary facilities, infrastructure and marketing, nonetheless, destination's contribution in poverty alleviation of the host communities is low due to low tourist patronage. This study therefore followed a positivist epistemology and objective ontology together with interpretive epistemology and subjective ontology, to: 1) determine the level of Ecotourism development in Doguwa Local Government 2) determine the level of poverty alleviation in Doguwa Local Government 3) establish if there is any significant relationship between ecotourism development and poverty alleviation in Doguwa Local Government. The data were collected using non standardized instruments, with a target sample size of 410. The study carries out a reliability test using Cronbach alpha and arrived at Cronbach alpha coefficient above 0.7, and validity test using content validity index with CVIs above 0.7, KMO above 0.7, Bartlett's test sig less than 0.05, determinant greater than 0.000, communalities above 0.5 and rotated component matrices discriminated and loading highly on distinct factors. The data were analysed at univariate, bivariate and multivariate levels. The findings reveal a significant relationship between ecotourism development and poverty alleviation of host community in Doguwa local government (Sig = 0.00) which coincided with the result generated from interview. And it was recommended that both government and other stakeholders should intensify on their effort of creating more facilities and conducive atmosphere for ecotourism development in the area.

Keywords: Ecotourism, welfare, infrastructure, and marketing.

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1.0: Introduction

Evidence has shown that service industry, particularly tourism is recognized as a major global industry and contributes immensely to the growth of global economy manifesting in its contribution to income, employment, availability of goods and services, which subsequently, creating jobs, supporting small businesses,

protecting the environment as well as contribute in reduction in global poverty (United Nation World Tourism Organisation, 2013). Moreover, according to World Travel and Tourism Council (2011) findings reveal that, ecotourism is a powerful tool for poverty alleviation, especially in ecologically fragile regions, by generating income, empowering communities, and promoting conservation.



However, despite the unprecedented phenomenal growth of Ecotourism in global economy and its positive impacts on poverty alleviation of many destinations, its performance in Doguwa local government in particular was below expectation in spite of various efforts made by the stakeholders in creating conducive environment for ecotourism development in the area (UNWTO, 2013). For instance, stakeholders have made effort to develop Doguwa destination as a means of: 1) diversifying the local economy, and 2) improving the welfare of the host community as well as poverty alleviation, manifested in the provision of the necessary infrastructure, facilities, marketing and security. These include: good roads, adequate healthcare provision, portable water, constant power supply, communication, promotion, safety and reliable security system (Adamu, 2015).

Therefore, the objectives of this study are: 1) to determine the level of Ecotourism development in Doguwa Local Government, 2) to determine the level of poverty alleviation in Doguwa Local Government, and 3) to establish if there is any significant relationship between ecotourism development and poverty alleviation in Doguwa Local Government.

2.0 Literature Review

Ecotourism Development

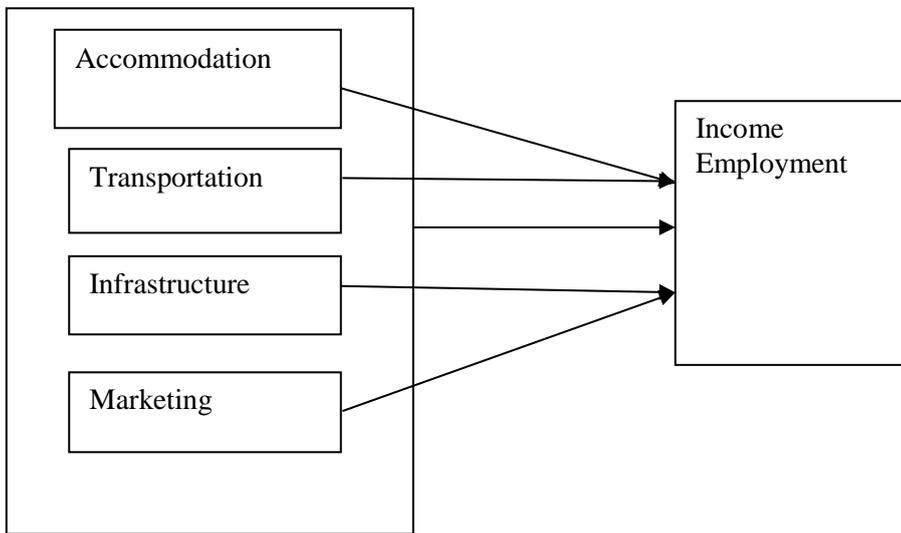
The term ecotourism is used to describe ventures that are characterized by high environmental

consideration, increases control and involvement of the local residents, as well as delivers significant benefits to the host community in terms of employment, income and poverty alleviation. Thus, the concept is clearly distinguished from other tourism ventures that are largely or even totally planned and managed by outside investors and generate little benefits for local people (Sinha, 1999). Therefore, ecotourism offers amalgam of services which make up the delivery of the tourist product that occurs in a fragmented system, consisting of accommodation, transportation, infrastructure and marketing. Moreover, the development of ecotourism would largely be determined by the facilities available and marketing, and would have several consequences on national, states and local economies. It generates employment, income, affects the production of goods and services, development of skills and entrepreneurs, which ultimately contributes to the employability and improvement of welfare standard and poverty alleviation of host community (UNWTO, 2024). Moreover, ecotourism product is a composite in nature and includes everything a visitor purchases, sees, experiences and feels from the time he leaves home until the time he returns back to his respective destination (Holloway, 1996). Thus, the study variables were conceptualized as follows:

2.1: Conceptual Framework

Ecotourism Development

Welfare of Host Community



Source: Sinha (1997), modified by a researcher.

Accommodation

The various types of accommodation used by the tourists are hotels, Motels, supplementary accommodation etc. As argued by Holloway (1996), it is one of the most important segments at the destination the tourist needed, which provides them with a place where they feel welcome, relax and have enjoyable experience.

Transportation

Culpan (1987) argues that, transportation in ecotourism is just seen as an integral part of tourism system, and important component of ecotourism services that facilitates the movement of holiday makers, business travelers, those people visiting friends and relatives, and also those undertaking educational and health tourism which contribute significantly to the development of the industry. Thus, ecotourism brings ecotourist to a destination and move them back when leaving this destination at the

expiration of their visitation, which have significant impact on poverty alleviation of host community (Sinha, 1997).

Infrastructure

Similarly, Infrastructural challenges are holding back developing destinations from fully benefiting from the tourism industry (UNWTO, 2013). Most of the developing destinations are lacking in this tourism infrastructure which as opined by Seth (1999) serves the need of both local residents and available visitors to the destination. Thus, that coincides with Briedenhann & Wickens (2004), who found that the problem of infrastructure and superstructure is evidence in most developing destinations, and this is more pronounced in Nigeria where the dearth of infrastructure is compounded by inability to maintain the few existing ones.

Marketing:

Developing ecotourism, and attractiveness of the destinations require application of diverse approaches of marketing mix elements that an organization controls to fit the needs and preference of a specific target market. This can

be achieved through the application of marketing mix, using five Ps: product, price, promotion, place and people (Sinha, 1998).

Poverty alleviation

The ability of ecotourism to contribute towards poverty reduction has been recognized globally (). More interestingly, ecotourism is on a steady and rapid growth pattern, increasing at a rate three times greater than tourism (i.e., 20%–34%) in sales and volume annually since 1990s, with more contribution to poverty alleviation. Thus, Ezebilo (2010) found that ecotourism has greatest pro poor impact on rural communities, because customers were patronizing the attractions, creating room for direct sell, thereby fostering the creation of economic multiplier effect, leading to an increase in income and employment to host community, and subsequent improvement in their entire living standard as well as poverty reduction.

3.0: Methodology

In achieving the study objectives, the study used cross sectional, descriptive and correlation designs, employing both qualitative and quantitative approaches. This was necessitated due to the nature of the measurement and quantifiable nature of study variables, study objectives, study hypotheses, qualitative and quantitative nature of the research approaches, and nature of poverty alleviation which can be quantified, measured, predicted and also perceived. Therefore, based on the aforementioned, the data was collected using both questionnaires and interviews. Moreover, in considering the acceptability and reliability of the instruments, the study used face validity and content validity for both questionnaire and interview guide, while additional construct validity was used for questionnaires. Furthermore, in congruence to the study objectives, 1) The study subjected the data to diagnostic tests necessary before running parametric statistics 2) Mean was used to compute for the level of ecotourism development and poverty alleviation 3) Due to the numerical nature of means of dependent and independent variables, the Pearson product correlation

coefficient was used for establishing the significant relationship between ecotourism development and poverty alleviation of the host community; 4) ANOVA statistics was used for ascertaining the significance of means 5) correlation analysis was used for ascertaining the relationship of the components of study variables.

4.0: Findings

This study analyses the data and presents the findings based on the objectives of the study. Using construct validity of convergent and discriminant, the study presents the best structure that describes the study variables. Diagnostic statistics, and parametric statistics of correlation were also carried out.

4.1: Preliminary findings of the study

In considering the acceptability of the instruments in this study, the study conducts: face validity and content validity for both questionnaire and interview guide and arrives at coefficients of content validity indexes of above 0.70. This shows that the contents of an instrument corresponds to the content of the theoretical concept it is intended to measure. Similarly, in ascertaining the construct validity of the questionnaire, a pilot study was conducted with 30 respondents. Using exploratory factor analysis of convergent and discriminant validity, the study determines the best component that describe the study variables (Amin, 2005). Moreover, the appropriateness of the items in measuring constructs and also appropriateness of the constructs in measuring the study variables were ascertained.

Similarly, in ascertaining the construct validity, the study conducts exploratory factor analysis through convergent and discriminant validity, using principal component analysis (PCA). Moreover, prior the conduct of EFA, the study determined sampling adequacy and the justification of sufficient relationship between study components. Using varimax method, EFA was used and reduced all the unrelated items to the minimum, and helps more in understanding

the correlation and interrelationship of components with each other (Field, 2009).

Moreover, in ascertaining the appropriateness of the data for conducting further parametric statistics, the study subjected the data to: normality test, linearity test, no multicollinearity test and homogeneity test. The result shows that all the data was normally distributed. Similarly, the components under the study variables were highly correlated. Moreover, there was no multicollinearity among the components under ecotourism development and the Lavene’s test statistics reveals the data was homogeneous and therefore appropriate for the conduct of parametric statistics.

In addition to the exploratory factor analysis and diagnostic test, the study also subjected the data to descriptive statistics which summarizes the data and describes the characteristics of the variables and arrived at the relationship between ecotourism development and poverty alleviation as contained on the objectives of the study as follows:

4.1: Descriptive Statistics

Descriptive statistics describe the characteristics of the study variables and the relationship that exists between ecotourism development and poverty alleviation of the host community.

Table 4.1: Descriptive Statistics

Variables	Mean	Std. Deviation	Interpretation	Rank
Accommodation	2.4838	.63673	Low	3
Transportation	2.5822	.51687	High	2
Infrastructure	2.2966	.51237	Low	4
Marketing	2.7701	.48216	High	1
Mean	2.5331	0.5370	High	
Employment	2.4977	.66358	Low	2
Income	2.6680	.75922	High	1
Mean	2.5828	0.7114	High	

Source: Primary Data, 2025.

4.8.1: Level of Ecotourism Development

The independent variable was conceptualized using accommodation, transportation, infrastructure and marketing. The analysis on

table 4.18 reveals that the level of the ecotourism development in Doguwa local government ranks high with the overall mean value of 2.5332.

Similarly, a brief examination on the analysis of the level of ecotourism development in Doguwa local government has also demonstrated that facilities at tourist destination are adequate with the overall mean of 2.5332. However, accommodation and infrastructure are having the average means of 2.4838 and 2.2966 respectively, which is low. Moreover, transportation and marketing are having the average means of 2.5822 and 2.7701 respectively which is high. This is clear indication that stakeholders have done a lot in ecotourism development in the area, but not with some restrictions as manifesting on the findings.

Moreover,, on the aspect of accommodation, the result has shown that due to the high risk involve and large capital required in this sub sector, most local investors are shining away from this area of investment. This necessitates the industry to attract foreign investors which resulted in hindering the industry's ability to achieve its effective capabilities. This coincides with Scheyvens (1999).

Level of Accommodation

Accommodation was measured using sufficiency, the quality, accessibility, variability, affordability and ownership in Doguwa. The responses were analyzed using means and rank, indicating the extent to which ecotourism is developed in the area as tabulated in table 4.18. The result shows that the low level of accommodation development in Doguwa with overall mean of 2.438. However, as has been indicated, despite the fact that the hotels in Doguwa are not sufficient, even the available ones are very expensive and owned by foreign investors as ranked first and second with the mean value of 2.6885 and 2.3396 respectively. Moreover, their support to local community is also ranked the lowest with the mean value of 2.3146.

This result has clearly demonstrated that local communities are not benefiting very much from hotel businesses as most of the hotel accommodations are located in the urban areas. This coincides with Briedenhan & Wickens (2004) findings that found lack of facility is most

pronounced in rural areas where incidentally most tourist sites are located.

Level of Transportation

Passenger transportation which provides critical linkages between market source and destination, the overall mean is ranked high with the mean value of 2.5822. Unlike developed destinations, airline is the most popular mode of travel for both holiday and business due to its comfort and safety, while in developing destination like Doguwa, due to economic situation and low people's purchasing power, it is less attractive. This was also demonstrated on table 4.18 and ranked the traveling by air as very expensive with the mean value of 2.7539. This coincides with Imodu's (2012) findings that 69 % of Nigerian live in poverty.

However, concerning the accessibility to the destination was ranked the lowest with the mean value of 2.3520 which shows that the destinations are lacking in roads facilities sine qua non for tourism development, and even the available ones are in dilapidated condition. This also coincided with Briedenhan & Wickens (2004) findings that most tourists are not motivated due to inadequacy of facility at tourist destinations in developing countries.

Level of Infrastructure

Infrastructures are the facilities at a tourist destination necessary to make enjoyable travel experience. The result on table 4.18 has also shown that the infrastructure has an overall mean value of 2.2966. As demonstrated also, financial institution and bureau de change facilitate travel experience which ranks the highest with the mean value of 2.6822. This explains that present of banks is sufficient at Doguwa destination. However, as shown earlier, the result also shows that the destination does not possess good transportation network which ranks lowest with the mean value of 2.0903. Moreover, the overall mean of Infrastructure is ranked lowest with the mean value of 2.2966. This also coincides with Briedenhan & Wickens (2004) and Bankole's (2002) findings that the problem of infrastructure and superstructure is evidence in most

developing countries, and this is even more pronounced in Doguwa where the dearth of infrastructure is compounded by the inability to maintain the few existing ones.

Level of Marketing

Concerning the level of marketing, table 4.18 also shows that marketing has the highest average mean among all the constructs, with the value of 2.7701, which demonstrates the extent to which tourism related organizations have designed and use sophisticated scheme for informing and persuading their clients, both present and prospective, to know about their services and destinations. However, despite this aggressive marketing effort, the country and the destination in particular have suffered from internal insecurity and negative effects of prolonged military rule, ranks first and second with the mean value of 3.1651 and 3.0093 respectively. This is manifesting in so many ways such as insurgency like Boko Haram, kidnapping, robbery, etc which are rampant in different parts of Nigeria.

Moreover, managers' effort at responding to customers demand promptly is ranked the lowest with the mean value of 2.5389. This of course undermines the industry's capability to achieve more, because as the service industry, one of its greatest asset is the effective service delivery. This coincides with Sudan (2001) and Flash (2004) findings that many ecotourism operators in developing destinations like Doguwa are reluctant participants in the tourism business, as very few managers have professional education in tourism and marketing, which inhibits their ability to achieve effective service delivery and ecotourist satisfaction. Therefore, promotional policies actively promoting tourism through policies and planning are necessary for ecotourism development.

These findings were also supported and reaffirmed by Bankole (2002), who found that; 1) the demand for local ecotourists attraction in Nigeria is very low, 2) there is growing Nigerian demand for foreign ecotourism and 3) foreign demand for domestic ecotourism in Nigeria is also very low. These findings further suggest substandard tourism service delivery, and the

underdevelopment of Nigerian tourism in general

Level of poverty alleviation

The analysis on table 4.18 has demonstrated the total mean of 2.5828, which ranked high as shown below. This has demonstrated generally, the local people are benefiting immensely from the presence of industry, which coincided with Sinha (1999) that the greatest economic impact from ecotourism proved the greatest amount of employment, income, infrastructure, taxes and multiplier effects.

As the major global industry, tourism in Doguwa alters established employment where the result has also shown that the sub sector has contributed immensely in making the host community to become self-reliant, with the mean value of 2.6511, which ranked the second. This is manifesting in their initiatives of investing part of proceed generated from tourism to agriculture for an example. However, the result has also demonstrated the corporate social responsibility of the industry in terms of the provision of the educational opportunities to host community is very low with the mean value of 2.2710. However, contrary to popular findings, Sinha (1999) found that parallel with the creation of jobs, ecotourism contributes to a greater or lesser extent dependent on the size of the country and the size of tourism sector, to the creation of increased demand for consumer and capital goods.

Income

The result on table 4.18 has shown that tourism employment in Doguwa local government has the overall mean of 2.6680. This shows that the industry has generated sufficient income, which subsequently used to fund community development project, reflecting on mean value of 2.8318, and ranks first. Similarly, income generated has improved the government revenue which indicates the relative importance of sub sector in the total economy as demonstrated with mean value of 2.8100 and ranks the second. However, the responses have shown weak on the benefit enjoyed by host community from the services rendered with the mean value of 2.5670.

This coincided with Sheyvens (2002), Smith (2007) findings.

Employment

Obviously, ecotourism development led to employment generation that is interlinked with

income as a result of investment in facility and increases tourist arrivals. This coincides with UNWTO (2001) findings that found ecotourism helps in creating local employment, improves income to both local people and foreigners, with consequent multiplier effect to the economy, and fosters sustainable development.

Table 4.2: ANOVA Table for Significant Relationship between the Means

			Sum of Squares	df	Mean Square	F	Sig.
WELFAR	* Between	(Combined)	48.942	85	.576	2.479	.000
ECOTOUR	Groups	Linearity	16.999	1	16.999	73.202	.000
		Deviation from Linearity	31.943	84	.380	1.638	.000
	Within Groups		54.572	235	.232		
	Total		103.515	320			

Source: Primary Data, 2025.

Table 4.3 shows that the mean values representing the level of both ecotourism

development and poverty alleviation of host community are significance at $p = <0.01$.

Table 4.3: Correlation between Ecotourism Development and poverty alleviation

Variables	1	2	3	4	5	6	7	8
ACCOMMODATION (1)	1							
INFRASTRUCTURE(2)	-.208**	1						
TRANSPORT(3)	.278**	-.017	1					
MARKETING(4)	-.037	.105	.094	1				
ECOTOURISM(5)	.552**	.374**	.652**	.521**	1			
INCOME(6)	.425**	-.376**	.481**	.101	.329**	1		
EMPLOMENT(7)	-.191**	.429**	.059	.175**	.196**	-.171**	1	
WELFARE(8)	.169**	.057	.411**	.216**	.405**	.620**	.667**	1

** . Correlation values significant at .01

Source: Primary Data, 2016.

Table 4.4: Linear Regression –ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.806	3	.602	1.876	.004^a
Residual	101.709	317	.321		
Total	103.515	320			
2 Regression	18.896	4	4.724	17.641	.000^b
Residual	84.619	316	.268		
Total	103.515	320			

Source: Primary Data, 2025.

The hierarchical linear regression (ANOVA) shows the nature of the relationship between ecotourism development and poverty alleviation

of host community is linear in nature. This is manifesting with sig value of = < 0.05 which shows the components are highly correlated.

Summary of the Results from Interview

In order to triangulate, quantitative result was supported with qualitative responses, where the study interviews relevant employees working in tourism related organizations in Doguwa local government who are also part of the host community, on the relationship between ecotourism development and poverty alleviation. This provides more reliable and in-depth information around the topic of the study, where all of the respondents agree that the development of tourism like any other industry has several consequences on national, state and regional economies. Manifesting in employment generation that is interlinked with income improvement as well as poverty reduction.

5. Conclusion

Sufficient evidences have shown that service industry, particularly tourism was recognized as a major global industry and contributed immensely to the poverty alleviation, despite the global economic challenges during the past few years. This was manifested in the significant role the sub sector plays in the economic growth and development in many developing destinations in the world. Thus, the findings revealed that the level of ecotourism development is high. Similarly, the study also found that the level of poverty alleviation is also high. Finally, the study found a positive and significant correlation between ecotourism development and poverty alleviation and acclaimed of generating multitude of beneficial effect upon economic indicators in Doguwa local government.

6.0: General Recommendations

Government in partnership with other stakeholders should be involved in ecotourism development in terms of provision of necessary facilities and creating conducive environment for all the stakeholders to operate, by gradually augmenting and encouraging local participation, through empowering local investors in the fields of accommodation, food production, handicrafts, and the training of local tourist guides.

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