

**THE CONTRIBUTION OF ROAD TRANSPORT TO THE DEVELOPMENT OF
TOURISM IN UGANDA**

A CASE STUDY OF QUEEN ELIZABETH NATIONAL PARK, KASESE

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ABSTRACT

The main objective of this study is to assess the significance of road transport to the development of the tourism sector in Uganda focusing on the case of Queen Elizabeth National Park. The study further has three objectives three specific objectives which were; To establish the relationship between road transport investment and the tourism development in Queen Elizabeth National Park, to examine the nature of roads in the areas of Queen Elizabeth National Park and to find out the effect of road transport on tourism development in Queen Elizabeth national Park. Keeping other factors constant, a one percent increase in investment of road transport leads to 0.239 percent increase in tourism development. The p-value (0.037) is less than 0.05 which implies that investment in road transport/infrastructure have a statistical significance on tourism development and thus the null hypothesis is rejected. The R squared value (0.961) is greater than the adjusted R squared value (0.950) because it takes into consideration the degrees of freedom and hence a good fit. Since F-computed (122.701) is greater than F-tabulated (10.01), we reject the null hypothesis and conclude that road transport has a significant relationship on tourism development. This study focused on the effect of government expenditure on road infrastructure (both paved and unpaved) would have on tourism of the country. It was established that in the

long run a percentage increase in both paved and unpaved road had effects on tourism development.

Key words: road transport and tourism

Background of the study

Queen Elizabeth national park is located in Kasese District which directly lies in the Equator with various tourist attraction species of over 95 mammals and 600 birds which attract tourist from various destinations all over the world with the major form of access being Mbarara-Kasese road according to Uganda Wildlife Authority official website. For the past decades, road transportation has been suggested by various researchers as a great contributor for national tourism development for remote tourist destinations the fact of it being the primary means of transport to access various tourist destinations such as Queen Elizabeth National Park which is located in Kasese District and other industries which also associates closely with tourism such as agriculture (Brian K, 2006). On one hand, a well-developed road transportation network industry is an important precondition for maintaining the fast growth of national economy, which exerts a “pulling effect” on national tourism development. On the other hand, the fast development of local tourism needs developed transportation industry as the infrastructure. Tourism development therefore exerts a “pushing effect” on road transportation mode of transport. Therefore, for this reason I was motivated to carry out a study on the relationship between road transport industry and the development of tourism in Uganda which has also been is a focus of both domestic and foreign scholars in the field. Many foreign scholars have made theoretical and empirical analyses on this issue. At the first half of 19th century, Freidrich Liszt, as the founder of historical German Institute of Tourism, with the main aim of being the world leading researcher in the field of tourism. In his opinion in one of his books “The Birth of Tourism in Germany”, to develop a well networked road mode of transportation can drive the prosperity and development of the local tourism industry in

a growing economy. Okecho Kenneth took Kenya as an example and concluded that the specialization of transportation tools improves the effect of local tourism development by decreasing transportation fees and increasing the ease of access to various remote areas hence the influx to tourist to various destinations. Adam Smith, an economist, thought: (1) Transportation is vital for the development of the major contributing sectors to national economic development which tourism is one of them according the data from Uganda Bureau of Statistics annual reports 2018. Some domestic scholars also analyzed the relationship between road transport development and the growth of the tourism industry such as Nagoya who carried out his studies in 2017. In his “analysis and submission he pointed out that the growth of local tourism industry is directly dependent on the development and the quality of road transport network in an economy.

Problem statement

Despite the fact of Queen Elizabeth being a home of a million wildlife species and a depot for various tourist activities such as game viewing, game drives, tree climbing lions, chimpanzee tracking, launch cruise, forest walks and among others, the rate of tourist influx to the destinations has remained low due to the nature and the number of roads that surrounds the entire area (Mashiri D, 2017). Therefore, this research intends to find assess the validity of this statement and find out the relationship between road transport and tourism development in the areas of Queen Elizabeth National Park.

Specific Objectives

- 1. To establish the relationship between road transport and the tourism development in Queen Elizabeth national park.*
- 2. To examine the nature of roads in the areas of Queen Elizabeth National Park.*
- 3. To find out the effect of road transport on tourism development in the areas of Queen Elizabeth national Park.*

Hypothesis of the study

Ho: There is no relationship between road transport and the tourism development in Queen Elizabeth national park.

Ha: There is a relationship between road transport and the tourism development in Queen Elizabeth national park.

Ho: There is no relationship between the nature of roads in the areas of Queen Elizabeth National Park and tourism development

Ha: There is a relationship between the nature of roads in the areas of Queen Elizabeth National Park and tourism development

Ho: There is no relationship between the effect of road transport and tourism development in the areas of Queen Elizabeth national Park.

Ha: There is a relationship between the effect of road transport and tourism development in the areas of Queen Elizabeth national Park.

Research questions

- 1. What is the relationship between road transport and tourism development in the areas of Queen Elizabeth National Park?*
- 2. What is the nature of roads in the areas of Queen Elizabeth National Park?*
- 3. How does road transport contribute to tourism the development in the areas of Queen Elizabeth National Park?*

Methodology

Research design

This study was carried out using both quantitative and qualitative research methods to provide detailed knowledge in the course of assessing the contribution of road transport towards the development of tourism in Queen Elizabeth National Park. This study was done using a cross sectional survey approach where the quantitative approach was used to quantify incidences in order to examine current conditions and to assess the significance of road transport on tourism development in the areas of Queen Elizabeth National Park using information gained from the questionnaires. The qualitative approach was used to explain the events and describe findings using interviews and documentary analysis.

Study Population

The study was conducted in the various government responsible bodies and stakeholders such as Game rangers, Uganda Wildlife Authority (UWA), Uganda National Road Authority (UNRA), Uganda Bureau of Statistics (UBOS), Social Developers, Non-Governmental Organizations, Economic Developers., Elected Politicians, Local authorities and Members of the Public.

Sample Size Determination

Data was collected from a representative sample that was selected from the study population. An estimate of sixty-five respondents was selected using. The sample size was obtained using Solven Forward's formula;

$$n = \frac{N}{1 + Na^2}$$

Where: n =the sample size

N = total population of respondents, that is 100

α = the level of significance, that is 0.05

$$n = \frac{N}{1 + N\alpha^2}$$

$$n = \frac{100}{1 + 100(0.05)^2}$$

$$N = 80$$

$$n = \frac{100}{1 + 100 * 0.0025}$$

$$n = \frac{100}{1.25}$$

$$N = 80$$

Data collection methods

A research instrument is what the researcher uses to collect the information in a qualitative field study or observation. It helps the researcher in keeping track of what he/she was to find out and how to report it.

The questionnaire

The researcher used a well-structured questionnaire which was contained both closed ended and open-ended questions to collect the information or data from many respondents within the projected research time frame projected time. The open-ended questions were given the respondent options of expressing the views guided by the researcher's interest using preset

questions while close ended questions restricted the respondent to choose what he thinks is the best alternative answer among the various options that was provided in the questionnaires.

Interview guide

This involves a face-to-face interaction between the researcher and the respondents. Formal interview guides are used to investigate complex and sensitive issues as according to (Kakoza, 2000)

This assisted in getting firsthand information from the respondents was selected from the study population to provide the required data.

Data analysis

To assess the contribution of road transport to the development of tourism in Uganda, a multiple linear regression was used to estimate the relationship between road transport investment and the development of tourism industry in Uganda with emphasis on Queen Elizabeth National Park using SPSS. Further analysis of qualitative data that was generated through the questionnaires was analyzed during and after collection manually to generate mean, ratio and percentages according to the categories.

RESULTS

Correlation Analysis

The Effects of Investment in Roads Infrastructure On tourism development in Uganda

Ho: There is no relationship between road transport and the tourism development in Queen Elizabeth national park.

Ha: There is a relationship between road transport and the tourism development in Queen Elizabeth national park.

Table 1: Showing relationship between investment in road infrastructure and tourism development in Uganda 2000/2018.

	IRI	tourism development
Column 1	1	
Column 2	0.852059	1

P-Value (0.00)

The correlation coefficient 0.852 shows a strong positive correlation between investment in road infrastructure and tourism development. The relationship is significant at 5% level of significance since the $p\text{-value } (0.00) < 0.05$.

The Relationship between nature of the roads and tourism development in Uganda

TABLE 2 showing relationship between coverage of paved roads and tourism development.

	nor	Tourism development
nor	1	
Tourism d	0.456	1

P-value (0.04)

Ho: There is no relationship between the nature of roads in the areas of Queen Elizabeth National Park and tourism development

Ha: There is a relationship between the nature of roads in the areas of Queen Elizabeth National Park and tourism development

The correlation coefficient 0.456 shows a strong positive correlation between the nature of the Roads and tourism development. The relationship is significant at 5% level of significance since the p -value $(0.04) < 0.05$.

The impact of road transport on tourism development.

Also, correlation coefficient was used and the results are shown below;

Table 3: Showing relationship between road transport and tourism development

	<i>CUPR</i>	<i>Tourism d</i>
<i>CUPR</i>	<i>1</i>	
<i>Tourism d</i>	<i>0.925423</i>	<i>1</i>

P-value (0.07)

Ho: There is no relationship between the effect of road transport and tourism development in the areas of Queen Elizabeth national Park.

Ha: There is a relationship between the effect of road transport and tourism development in the areas of Queen Elizabeth national Park.

The correlation coefficient 0.9254 shows a strong positive correlation between Coverage of Paved Roads and tourism development. The relationship is insignificant at 5% level of significance since the p -value $(0.07) > 0.05$. And therefore, we fail to reject the null hypothesis and conclude that there is no relationship between the effect of road transport and tourism development

Regression Result

Table 4.2 Showing Regression results of Road infrastructure and tourism development

		Standard			Lower	Upper	Lower	Upper
	0.2387959	0.001173588	2.03475	0.03994855	-0.00011	0.004889	-0.00011	0.00488940
PR	0.0823489	0.000141794	5.807654	3.452E-05	0.000521	0.001126	0.000521	0.00112571
	0.13222047	0.004222456	3.131364	0.00686296	0.004222	0.022222	0.004222	0.02222199

Number of observations= 19, $F(3, 15) = 122.70076$, $R\text{-square} = 0.96084$

Adjusted $R\text{-square} = 0.953015$, $MSE = 399.8659$, $ESS 3.25887$

Regression equation

Source: Excel Regression Result

$$GDP = 8.578533593 + 0.2387959 IRit + 0.0823489 Nort + 0.13222047 erpt + ui$$

H_0 : There is no relationship between road transport and the tourism development in Queen Elizabeth national park.

H_a : There is a relationship between road transport and the tourism development in Queen Elizabeth national park.

Ho: There is no relationship between the nature of roads in the areas of Queen Elizabeth National Park and tourism development

Ha: There is a relationship between the nature of roads in the areas of Queen Elizabeth National Park and tourism development

Ho: There is no relationship between the effect of road transport and tourism development in the areas of Queen Elizabeth national Park.

Ha: There is a relationship between the effect of road transport and tourism development in the areas of Queen Elizabeth national Park.

Keeping other factors constant, a one percent increase in investment of road transport leads to 0.239 percent increase in tourism development. The p-value (0.037) is less than 0.05 which implies that investment in road transport/infrastructure have a statistical significance on tourism development and thus the null hypothesis is rejected.

Keeping other factors constant, a one percent increase in the nature of roads leads to 0.0823 percent increase in tourism development. The p-value (0.00) is less than 0.05 which implies that nature of roads has a statistical significance on tourism development and thus the null hypothesis is rejected.

Keeping other factors constant, a one percent increase in the effects of road transport leads to 0.1322 percent increase in tourism development. The p-value (0.00) is less than 0.05 which implies that effects of road transport have a statistical significance on tourism development and thus the null hypothesis is rejected.

The R squared value (0.961) is greater than the adjusted R squared value (0.950) because it takes into consideration the degrees of freedom and hence a good fit.

Since F -computed (122.701) is greater than F -tabulated (10.01), we reject the null hypothesis and conclude that road transport has a significant relationship on tourism development

Conclusion

This study focused on the effect of government expenditure on road infrastructure (both paved and unpaved) would have on tourism of the country. It was established that in the long run a percentage increase in both paved and unpaved road had effects on tourism development.

Shim run analysis too established a positive effect from road infrastructure to tourism development. This helped to test the hypothesis which confirmed that government expenditure on road infrastructure would accelerate the growth of tourism and this is strengthened by the positive causal relationship.

It is however, imprint to note that the study only concentrated on district roads and left out national roads due to the difficulty in obtaining data. Road transport remains the major mode facilitating movement of goods and people across the country to accelerate tourism and business activities given the fact that Uganda is land locked.

Similarly important to note is that the other capital stock variable has a very high significant value to GDP

Recommendations

Arising from the conclusion are the following recommendations:

From the findings, the study recommends for increased construction and regular maintenance of the unpaved roads. This has an advantage in way that the paved roads have a long life span compared to the unpaved roads. It will also help in providing increased access of game parks areas consequently stimulating the tourism sector and also will increase the country's foreign exchange especially in the East African region it being the Pearl of Africa with great

biodiversity through the reduced transport costs brought about by increased access across borders.

Putting much emphasis on the paved road has a great advantage in that the road can be used throughout the year as opposed to the unpaved that become dusty during the dry season which impact health hazards to the tourists and impassable during heavy rains seasons.

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