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Determinants of Tourism Demand in the SADC Region

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BOTSWANA INSTITUTE FOR DEVELOPMENT POLICY ANALYSIS



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BIDPA

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TABLE OF CONTENTS

ABSTRACT	iv
1. INTRODUCTION	1
2. BACKGROUND ON ECONOMIC BENEFITS OF TOURISM	2
2.1 Economic and Social Benefits of Tourism	2
2.2 Contribution of Tourism in the SADC Region	3
3. BRIEF REVIEW OF LITERATURE	6
3.1. Determinants of Tourism Demand	6
4. METHODS OF ANALYSIS AND DATA	7
4.1 Model Specification	7
4.2 Data and Sources	9
5. RESULTS AND DISCUSSION	10
5.1 Hausman Test	10
5.2 Fixed Effects Results	11
6. CONCLUSION AND POLICY IMPLICATIONS	12
REFERENCES	13
APPENDIX	15

ABSTRACT

This study estimates the determinants of tourism demand in Southern Africa Development Community (SADC) region using Generalised Least Squares (GLS) estimation procedure and panel data for the period 1997–2015. The results obtained suggest that the elasticities of tourism demand with respect to real capital investment on the tourism sector, real exchange rate, real gross domestic product (GDP), proportion of population with access to internet and global peace index are positive, while that with respect to inflation rate is negative. These results imply that for any country in the SADC region to attract more arrivals of tourists: it should invest significantly on the tourism sector, in terms of upgrading tourism infrastructure; implement exchange rate policy that is favourable to international tourists; and promote a reputation of being a peaceful and less corrupt country. Since tourism has strong linkages with other economic sectors, it is an ideal prospect for economic diversification.

Key Words: Tourism demand, SADC region, Diversification
JEL Classification: Z32

1. INTRODUCTION

Tourism is often considered as one of the strongest emerging sector when compared to other economic sectors, and it has showed to have a significant contribution to employment creation, exports and Gross Domestic Product (GDP) growth in SADC tourism-dependent economies, such as Seychelles and Mauritius. Tourism is simply defined as the visit by foreign individuals to a country with abundance of wild life animals, attractive landscapes, historical places and rich in cultural inheritance. In addition, individuals are more attracted to visit countries which are less corrupt and peaceful in nature (Gokoali and Bahar, 2006; Richardson, 2010).

Tourism has played an integral role in promoting economic performance of the SADC region. During the period 1997-2015, the share of tourism investment to total exports was estimated at an average of 7.8 % per year, which has subsequently translated to improved performance of employment, exports and GDP growth. For example, during the same period, tourism sector accounted for 11.93 % of total exports, 11.61 % of total employment, and 12.41 % of total GDP in SADC (World Travel and Tourism Council, 2015), indicating that it has been an important source of economic and social development in the region.

Among SADC countries, Seychelles and Mauritius have consistently stood out in terms of how the tourism sector contributes to their economic development. During the period 1997-2015, the share of tourism GDP to total GDP for Seychelles and Mauritius were estimated at an average of 58.75 % and 26.01 % per year, respectively. During the same period, tourism accounted for 39.28 % and 29.33 % of total exports and 58.62 % and 24.85 % of total employment per year for Seychelles and Mauritius, respectively, (World Travel and Tourism Council, 2015).

Since tourism has strong economic linkages with other economic sectors, promoting its development would benefit such sectors in terms of increasing their growth performance, which will further lead to a diversified economy. Such sectors are Construction, Agriculture, Finance, Transport, Telecommunication, Hotels and Restaurants. For this reason, tourism could be considered as an ideal sector which presents opportunities for economic diversification, more particularly for resource-dependent countries in the SADC region which have faced difficulties to diversify their economies. Therefore, such economic diversification prospects could be realised in countries which are less corrupt and peaceful in nature with abundance of wild animals and historical places.

Tourism also encourages peace and lessens political unrest among nations through international and regional integration, which as a result harness cultural integration, language transfer and acceptance of cultural differences (Han and Fang, 1997; Goymen, 2000; Jaswal, 2014). It also plays a key role in reducing negative environmental impacts, protecting and preserving cultural heritage and natural resources such as wildlife,

attractive landscapes and historical places (Falleiro, 2015; Noori and Zand, 2013). These views were also supported by Ashley et al., (2007) and Richardson (2010) who asserted that tourism is one of the key sectors which has a better response mechanism to environmental disasters and illegal activities such as anti-poaching.

This study estimates the determinants of tourism demand in the SADC region. The findings of this study will identify indicators that determines tourism demand in the SADC region from economic, environmental and political side. The findings will provide an insight on most influential factors of tourism demand which may be of interest to policy makers and investors when formulating tourism development strategies. This study is important because it is the first one to conduct empirical estimation of tourism demand in the SADC region. Moreover, the study contributes to an understanding of tourism demand in an African continent. Only one study so far has estimated tourism demand in Africa continent (Fourier and Santana-Gallego, 2013). However, this study did not control for regional fixed effect or differences in demand. Our study overcomes this by adopting country fixed effect model.

The rest of the study is organized as follows: Section 2 provides an overview of economic benefits of tourism and its contribution to economic development in the SADC region, while Section 3 provides brief review of literature. Section 4 sets the methods of analysis, data and sources. Section 5 discusses the results and, Section 6 covers conclusions and policy implications of the study.

2. BACKGROUND ON ECONOMIC BENEFITS OF TOURISM

2.1 ECONOMIC AND SOCIAL BENEFITS OF TOURISM

The importance of tourism sector on economic development and social wellbeing has been recognised in developed and developing countries (Giap, Goplan and Ye, 2016; Gokovali and Bahar, 2006; Richardson, 2010; Noori and Zand, 2013; Falleiro, 2015). It has been argued that since tourism is labour intensive, it enables employment creation, and hence, improves social wellbeing of the rural community. In addition, it promotes self's growth through training and skills transfer. Therefore, income earned through tourism employment would ensure food security and reduce poverty level (Sheferahu, 2016; Jaswal, 2014; Akama and Kieti, 2007).

According to Falleiro (2015) and World Travel and Tourism Council (2006), foreign exchange earnings generated through the sale of tourism products has led to increased growth of service exports. Therefore, tourism development will significantly contribute to the increased growth of total exports. Ashley et al. (2007) and Richardson (2010) highlighted that since most of tourism activities are based in remote areas, construction and maintenance of roads, airport and telecommunication infrastructure as a means of promoting tourism development would enable easy market access in such areas.

Shakouri et al. (2017) argued that since tourism industries such as hotels, restaurants, museums, entertainment, recreation, travel and tours offers the same kind of products and service to their customers, this would bring competition amongst them. The same thing would apply to industries which provide support services to the tourism sector such as telecommunication networks, water and electricity supply. Therefore, competition would enhance efficiency and effectiveness in tourism service provision, further leading to increased productivity. Shakouri et al. (2017) added that tourism enhanced technological development and skills transfer, which also improves productivity.

It has been emphasized that tourism has strong economic linkages with other economic sectors such as Construction, Hotels and Restaurants, National Security, Health, Agriculture, Finance, Transport and Communication (Crompton, Lee and Shuster, 2001; Giap, Gopalan and Ye, 2016; Tyrell and Johnson, 2001). Therefore, benefits of promoting tourism development would spill over to such sectors, leading to increased performance of the economy as a whole. Therefore, tourism could represent an ideal prospect of economic diversification, more particularly for resource-dependent countries which have faced difficulties to diversify their economies.

2.2 CONTRIBUTION OF TOURISM IN THE SADC REGION

Capital investment and other related investment on tourism sector have played a major role on its development, and subsequently increasing its contribution to overall economic development in the SADC region. Available evidence indicates that the tourism sector contributes more to economic development of countries with higher investment on tourism than those with less investment.

Table 1 which shows the five year's period averages of the shares of tourism investment to total exports, indicates that Seychelles has the highest share across all time periods. On average, the share of tourism investment to total exports for Seychelles was estimated at an average of 34.36 % per year during the period 1997-2015. Namibia has the second highest share which was estimated at an average of 10.70 % per year, followed by Mauritius (9.07 %) and Madagascar (9.60 %). However, capital investment on tourism has remained relatively low for other countries such as Malawi and Zambia. During the same period, the share of tourism investment to total exports for Malawi and Zambia were estimated at an average of 2.80 % and 1.45 % per year, respectively, indicating that development priorities of these countries paid little attention to tourism development.

The impacts of capital investment on tourism have led to increased exports growth for countries which have invested significantly on tourism. Figure 1, which depicts the average shares of tourism exports to total exports during the period 1997-2015, indicates that the average share of tourism exports has being highest in Seychelles. On average, tourism sector accounted for 39.3 % of total exports in Seychelles, 29.3 % in Mauritius, 27.8 % in Tanzania, and 15.6 % in Madagascar per year. This indicates the relative

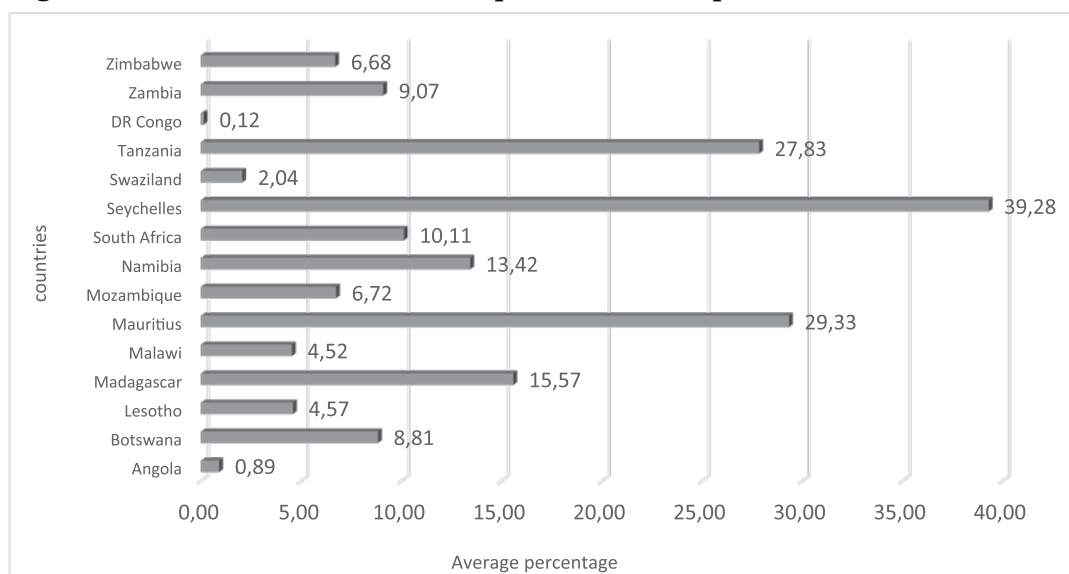
Figure 1: Tourism Capital Investment (% of Exports)

Country	1997-2001	2002-2006	2007-2011	2012-2015	Average
Angola	4.89	6.19	3.36	2.98	4.43
Botswana	4.88	4.92	5.94	7.68	5.76
Lesotho	3.48	6.31	8.51	7.51	6.40
Madagascar	5.87	5.16	11.22	17.80	9.60
Malawi	3.58	2.38	1.87	3.50	2.80
Mauritius	12.85	9.37	8.30	4.94	9.07
Mozambique	1.22	1.84	5.06	4.59	3.11
Namibia	10.36	10.74	10.31	11.55	10.70
South Africa	6.18	7.11	8.36	7.86	7.35
Seychelles	40.71	31.34	35.96	28.22	34.36
Swaziland	6.38	5.88	4.88	2.74	5.09
Tanzania	5.20	6.87	7.94	8.88	7.14
DR Congo	6.43	0.98	4.95	3.88	4.07
Zambia	1.74	1.16	1.32	1.62	1.45
Zimbabwe	4.63	4.53	8.55	4.09	5.52

Source: World Travel and Tourism Council (2015)

importance of the tourism sector as a main source of exports earnings. During the same period, Angola and Democratic Republic of Congo have experienced relatively low shares, which were estimated at an average of 0.89 % and 0.12 %, respectively.

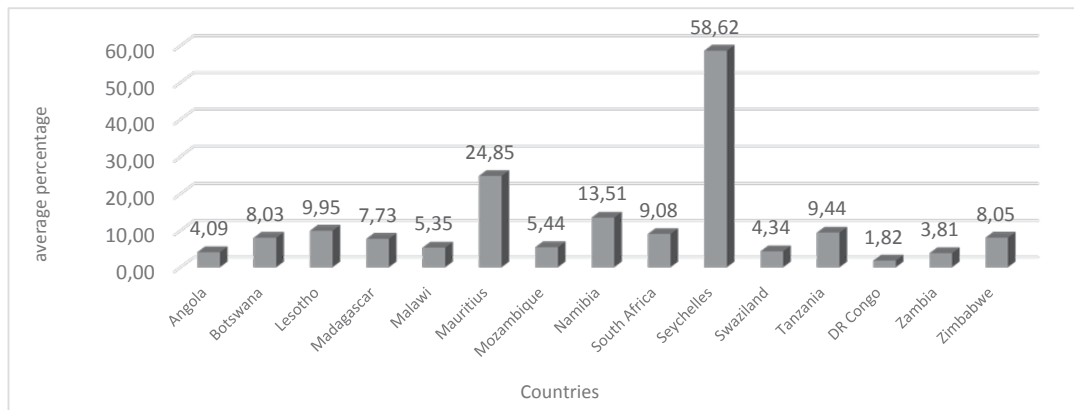
Figure 1: Contribution of Tourism Exports to Total Exports (1997-2015)



Source: World Travel and Tourism Council (2015)

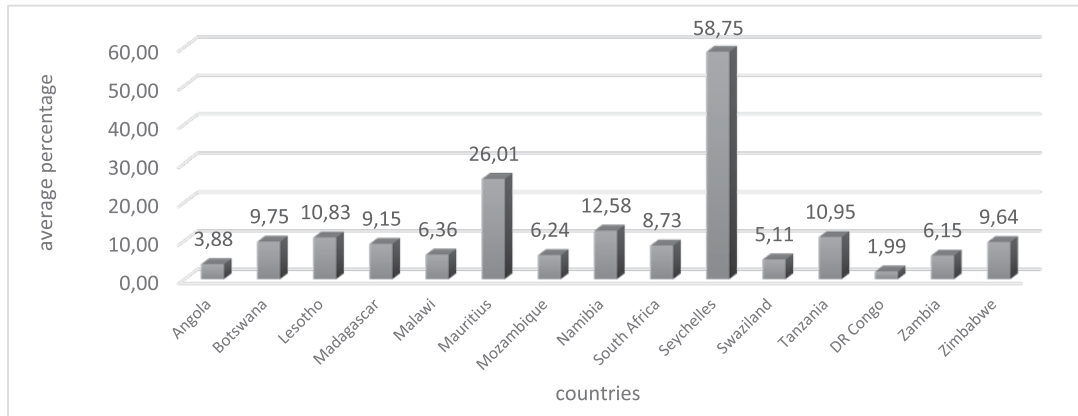
Figure 2, depicts the shares of employment generated by the tourism sector to total employment. Higher investment in tourism adopted by Seychelles and Mauritius, was followed by substantial increases in tourism employment. On average, tourism employment accounted for 58.6 % of total employment in Seychelles, 24.9 % in Mauritius, and 13.5 % in Namibia during the period 1997-2015. However, Zambia and Democratic Republic of Congo experienced lower shares of tourism employment which might have been caused by relatively low shares of investment on tourism. During the period 1997-2015, the share of tourism employment to total employment was estimated at an average of 3.8 % and 1.8 % per year for Zambia and Democratic Republic of Congo, respectively.

Figure 2: Average Contribution of Tourism Employment to Total Employment (1997-2015)



Source: World Travel and Tourism Council (2015)

Figure 3 depicts the shares of GDP generated by the tourism sector to total GDP among the SADC countries. At regional level, during the period 1997-2015, the share of tourism GDP to total GDP was estimated at an average of about 12.41 % per year. At country level, greater contribution of tourism to economic developments have recently been observed in Seychelles, pointing to better prospects for those countries which have faced difficulties to diversify their economies. On average, the share of tourism GDP to total GDP has being highest in Seychelles, which was estimated at an average of 58.75 % per year during the period 1997-2015. During the same period, the share of tourism GDP to total GDP for Mauritius, Namibia and Tanzania were estimated at an average of 26.01 %, 12.58 % and 10.95 % per year, respectively. However, Angola and Democratic Republic of Congo have experienced the lowest shares, which were estimated at an average of 3.9 % and 2.0 % per year, respectively.

Figure 3: Average Contribution of Tourism GDP as % of Total GDP (1997-2015)

Source: World Travel and Tourism Council (2015)

3. BRIEF REVIEW OF LITERATURE

3.1. DETERMINANTS OF TOURISM DEMAND

The demand for tourism has been estimated in developed and developing countries. In developing countries, tourism related research is important because it provides informed decision making when planning and implementing tourism development strategies. Tourism related research identifies progress made and challenges in the tourism industry and recommend factors which have contributed to growth in tourism (Sheferahu, 2016). Much of empirical findings on tourism related research have indicated that tourism is influenced by income of country of origin, consumer prices, exchange rate, quality and costs of transportation and accommodation (Onder and Kumrai, 2009). As income continues to grow, this will continue to fuel demand for tourism. It has been argued that since consumers are rational and seeks to maximise their satisfaction subject to income they have, tourism demand is influenced by low levels of consumer prices prevailing in a host country (Sheldon, 1993).

A number of different estimation techniques have been suggested for modelling tourism demand. Cho (2001), Croes and Vanegas Sr (2005) and Daniel and Ramos (2002) provide the outcomes of main drivers of the demand for tourism. Cho (2001) employed an Autoregressive Integrated Moving Average (ARIMA) using data for the period 1975-1994 to estimated tourism demand in Hong Kong. Croes and Vanegas Sr (2005) adopted Ordinary Least Squares (OLS) using data for the period 1979-1982 to estimated tourism demand in Aruba, while Daniel and Ramos employed an Error Correction Model (ECM) with data for the period 1975-1997 to estimate tourism demand in Portugal. The results obtained suggest that the impacts of income or GDP and local currency depreciation on tourism demand is positive, while that for consumer

prices and relative prices of tourism products are negative. Daniel and Ramos (2002) added that the arrival of tourists from Germany to Portugal depends on the costs of road transport while from Netherland to Portugal depends on the costs of air transport.

Political unrest and corruption has been seen as a main challenge that discourages tourism demand in developing countries. As observed by Giap, Gopalan and Ye (2016) and Naude and Saayman (2005), political unrest has a major negative impact on the demand for tourism. The former estimated the determinants of tourism demand in Malaysia using Geweke causality framework with quarterly data for the period 2000–2012 and latter estimated tourism demand for 43 African countries using Generalised Least Squares (GLS) and Generalized Methods of Moments (GMM) with panel and cross-sectional data for the period 1996–2000. Other determinants of tourism demand considered by these authors were government investment on tourism, quality of infrastructure, costs of accommodation, telephone connectivity, costs of transport, access to internet, and trade openness. Their findings indicate that the impact of political unrest, transport and accommodation costs on tourism demand are negative, while that for government investment on tourism, internet access, telephone connectivity, quality of infrastructure and trade openness are positive. Naude and Saayman (2005) added that factors which mostly influence the demand for tourism in developed countries such as income of country of origin, consumer prices and cost of travel are not influential factors in Africa.

Another study by Eilat and Einav (2004) estimated the determinants of the tourism demand in developed and developing countries using data for the period 1985–1998. Pooled Logit approach was applied to estimate the arrivals of tourists as a function of the share of tourism receipts to Gross National Product (GDP), relative price, political risk index, distance between origin and host country, and a dummy variable which take the value one if the two countries share the same border and language. The results suggest that tourism demand is more responsive to income of developed nations but less responsive to that of less developed nations. In addition, political risk index of a host country, distance between origin and host country, and sharing common language and border are most influential factors determining tourism arrivals.

4. METHODS OF ANALYSIS AND DATA

4.1 MODEL SPECIFICATION

Equation 1 outlines empirical model for estimating tourism demand in the SADC region. The number of tourist's arrivals in the region is treated as a dependent variable and was regressed on a set of explanatory variables that serves as main determinants of tourism demand. The model considers only 12 SADC countries because there was lack of data for some countries which were subsequently excluded.

Since we are dealing with 12 SADC countries, equation 1 specifies panel estimation to country i ($i = 1, 2, 3, \dots, 12$), observed at different time periods t ($t = 1997, 1998, 1999, \dots, 2015$).

$$\log(A_{it}) = \beta_0 + \beta_1 \log(Y_{it}) + \beta_2 \log(I_{it-1}) + \beta_3 Ex_{it} + \beta_4 P_{it} + \beta_5 \log(IU_{it}) + \beta_6 \log(G_{it}) + \varepsilon_i + e_{it} \quad (1)$$

where A is the number of tourist's arrivals, Y is real GDP per capita of a host country, I is real capital investment on tourism lagged by one period, Ex is real exchange rate of local currency per US Dollar, P is inflation rate prevailing in a host country, IU is the proportion of internet users to total population, and G is country's global peace index. β 's are the matrix of 12 dimensional rows of parameters to be estimated, ε is time invariant error term which is fixed for each cross section (country), and e is stochastic error term which varies over time. All the variables are expressed in natural logarithm except for inflation rate and exchange rate.

The higher the level of GDP per capita in the host country would indicate more availability of goods and services demanded by tourists. Therefore, GDP per capita is expected to have a positive impact on tourism demand (Daniel and Ramos, 2002). Investment related to tourism activities in terms of upgrading its infrastructure would attract more foreign individuals in the host country, therefore, it is expected to have a positive impact on tourism demand (Naude and Saayman, 2005). According to Kulendran and Wilson (2000), the depreciation of the local currency in a host country would lead to increased purchasing power for international tourists, therefore, it is expected to have a positive impact on tourism demand. Low interest rate charged on money lending for consumption of tourism related products is expected to have a positive impact on tourism demand.

Prices prevailing in a host country, more particularly for tourism related products are theoretically expected to be low in order to attract tourists' arrival. Therefore, it is expected to have a negative relationship with tourism demand (Eilat and Einav, 2004). Countries with a favourable global peace index (closer to 100) are expected to attract more tourists' arrivals than those with unfavourable global peace index (closer to 0), therefore global peace index is expected to have a positive impact on tourism demand (Naude and Saayman, 2005). Easy access to internet in a host country would encourage tourism demand, therefore its sign is expected to be positive.

Before equation 1 was formulated, model specification test was performed in order to select between two panel models, Fixed Effect (FE) and Random Effect model (RE). The test was conducted in order to determine which model is more appropriate for our data. FE model assumes that parameters are fixed in all cross sections and should be estimated as such, while RE assumes that parameters are random, implying that the error term in general has a normal distribution (Hausman, 1978).

Let assume that A represents tourism arrivals as before and X is the vector of explanatory variables in equation 1, observed at year t for country i . Fixed Effect model is specified as:

$$A_{it} = \alpha_i + \beta' X_{it} + \varepsilon_{it} \quad (2)$$

where β are parameters to be estimated, and ε is vector of time invariant disturbance term.

Conversely, Random Effect (RE) model is specified as:

$$A_{it} = \alpha_i + \beta' X_{it} + \mu_i + \varepsilon_{it} \quad (3)$$

where μ is random disturbance characterising country i . In the random effect model, it is assumed that individual effects are not correlated with other explanatory variables, thus, $E(X\mu) = 0$.

4.2 DATA AND SOURCES

Panel data used in the analysis of this study is cross sectional data of 12 SADC countries with annual time series data for each country for the period 1997-2015. Zimbabwe, Zambia and Democratic Republic of Congo were excluded because of lack of data. Time series data for the number of tourism arrivals and capital investment on tourism were collected from World Travel and Tourism Council (2015). Other variables such as real GDP, trade openness, proportion of internet users to total population, exchange rate, interest rate, and consumer price index were collected from the World Bank (2015), while global peace index was collected from Institute for Economics and Peace website, <http://economicsandpeace.org>.

Regarding treatment of the variables, real GDP per capita, tourism capita investment, and trade openness for all the countries were measured at constant 2010 US dollar. Tourism capital expenditure was lagged by one year to reflect the impacts of tourism investment after a year. While consumer price index used 2010 as the base year for each countries and exchange rate was taken as the period average of official exchange rate of local currency per US dollar for each country. US dollar was used as a reference for international currency.

5. RESULTS AND DISCUSSION

4.1 HAUSMAN TEST

In order to choose between the FE and RE model, the Hausman test was used. The test compares the null hypothesis which seek to prove that RE model will give efficient estimates against an alternative hypothesis which seeks to prove that FE model will give efficient estimates. To perform the test, equation 1 will be estimated with random effect specification, assuming the hypothesis that random effects and explanatory variables are uncorrelated. If the hypothesis cannot be rejected, the Random Effects model will be an adequate representation of our data. Hausman test focuses on the statistical significance of the asymptotically distribution of the X^2 and its degrees of freedom depends on the number of explanatory variables used in the model. If the X^2 statistics is greater than the critical value, then the null hypothesis will be rejected and select FE as an adequate representation of the data. The null and alternative hypothesis are set as:

$$H_0 : Cov (u_i, X_{ii}) = 0 \text{ (RE)}$$

$$H_1 : Cov (u_i, X_{ii}) \neq 0 \text{ (FE)}$$

Table 2 represents model specification statistics for the model evaluated using Hausman Test. The test statistics associated with X^2 is 125.07 and is more than critical value 6.00, therefore, FE is an adequate representation of the model.

Table 2: Hausman Test

Test Summary	X^2 Statistic	X^2 d.f	P-Value	
Cross-section random	125.07	6	0.0000	
Cross-section random effect test comparisons				
Variable	Fixed	Random	Var. Difference	P-Value
Real GDP	0.9466	0.4194	0.0177	0.0001
Tourism Investment	0.0000	0.0000	0.0000	0.0000
Exchange rate	0.0002	0.0004	0.0000	0.0060
Internet Users	0.0011	0.0498	0.0002	0.0005
Inflation Rate	-0.3087	-0.4661	0.0008	0.0000
Global Peace Index	0.0304	0.0806	0.0005	0.0309

5.2 FIXED EFFECTS RESULTS

Table 3 shows panel results of tourism demand in the SADC region estimated using equation 1. Trade openness was dropped from the model because it had unexpected sign although it was significant. Lending interest rate was also dropped because it did not yield the expected sign and was insignificant. The model reasonable fits the data as explained by the goodness of fit, 74.8 % of variation in tourism demand measured as the arrivals of tourists in the SADC region is explained by explanatory variables. There was no serial correlation detected in the model. All the estimated coefficients were statistically significant with theoretical expected signs. In an effort to check for an adequacy of model results, the study estimated FE and RE models. In this section, the best model (FE) is the one presented and RE model is presented in Appendix.

The results show that the elasticities of tourism demand with respect to real GDP per capita, capital investment on the tourism sector, global peace index and the proportion of population with access to the internet are positive and statistically significant, while that for inflation rate is negative and statistically significant. All these variables have theoretically expected signs. These findings are consistent with results obtained by Giap, Gopalan and Ye (2016), Eilat and Einav (2004) and Naude and Saayman (2005).

Table 3: Fixed Effect Model Results

Variable	Coefficient	T-Statistics	P-value
Constant	1.4887	1.7080	0.0890*
Real GDP	0.5791	13.911	0.0000***
Tourism Investment	0.1348	4.4971	0.0000***
Exchange Rate	0.0003	4.1948	0.0000***
Internet Users	0.1270	11.241	0.0000***
Inflation Rate	-0.0034	-5.4461	0.0000***
Global Peace Index	0.0570	1.9463	0.0529**
Effects Specification			
Cross-section fixed (dummy variables)			
R-Squared	0.7484	SSR	9.5388
Adj. R-Squared	0.7416	Prob. (F-Statistics)	0.0000

Note: ***, **, and * indicate significant at 1%, 5% and 10% level of significance, respectively.

6. CONCLUSION AND POLICY IMPLICATIONS

As indicated earlier, tourism sector is important to economic diversification strategies to most of SADC countries, more particularly resource-dependent countries which have faced difficulties to diversify their economies. The tourism sector can be seen as ideal prospect for economic diversification because of its significant contribution to employment creation due to its labour intensive nature, as well as export and GDP growth. In addition, tourism sector itself has some strong linkages with other economic sectors such as construction, transportation, telecommunication, health, agriculture, retail, finance, hotels and restaurants, which will further accelerate economic diversification.

Countries which have invested significantly on the tourism sector such as Seychelles and Mauritius are dependent on tourism in terms of employment creation, exports and GDP growth. This study revealed that, on average, 58.75 % and 26.01 % of GDP was generated by the tourism sector in Seychelles and Mauritius, respectively, during the period under review. Tourism also accounted for 39.28 % and 29.33 % of total exports, as well as 58.62 % and 24.85 % of total employment in Seychelles and Mauritius, respectively, indicating that tourism is important to job creation, exports and GDP growth. Therefore, Seychelles and Mauritius could serve as a benchmark for most of SADC countries intending to diversify their economies through the tourism sector.

Empirical results confirmed that the arrival of tourists in the SADC region is positively influenced by real income, capital investment in the tourism sector, proportion of people with access to the internet, exchange rate and peacefulness of a host country. On the other hand, tourism arrival is negatively related to inflation rate. The results imply that for any country in the SADC region to attract tourists' arrivals, it should invest significantly on the tourism sector, in terms of upgrading its tourism related infrastructure such as roads, airport facilities, telecommunication networks, hotels and restaurants, and access to the internet. Its exchange rate should be favourable to international tourists in terms of the increasing the purchasing power of tourist's money. Most importantly, the host country should promote its reputation of being a peaceful and less corrupt country.

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APPENDIX

Table A1: Random Effect Model Results

Variable	Coefficient	T-Statistics	P-value
Constant	-11.5075	-4.3013	0.0000
Real GDP	1.1603	9.7490	0.0000
Tourism Investment	0.1361	4.1376	0.0001
Exchange Rate	0.0002	1.6600	0.0984
Internet Users	0.0391	1.9175	0.0565
Inflation Rate	-0.0019	-2.9500	0.0035
Global Peace Index	0.0399	1.0941	0.2752
Effects Specification		S.D	Rho
Cross-section random		0.1977	0.4626
Idiosyncratic random		0.2131	0.5374
Weighted Statistics			
R-Squared	0.966	SSR	16.2393
Adjusted R-Squared	0.963	Prob.(F-Statistic)	0.0000

Table A2: Number of Tourism Arrivals 1

	Angola	Botswana	Congo, DR	Lesotho	Madagascar	Malawi	Mauritius	Mozambique
1997	45000	607000	30000	313000	101000	207000	536000	323000
1998	52000	750000	53000	290000	121000	220000	558000	323000
1999	45000	843000	80000	308000	138000	254000	578000	323000
2000	51000	1104000	103000	302000	160000	228000	656000	323000
2001	67000	1193000	55000	295000	170000	266000	660000	323000
2002	91000	1274000	28000	287000	62000	383000	682000	541000
2003	107000	1406000	35000	329000	139000	424000	702000	441000
2004	194000	1523000	36000	304000	229000	427000	719000	470000
2005	210000	1474000	61000	304000	277000	438000	761000	578000
2006	121000	1426000	55000	357000	312000	638000	788000	664000
2007	195000	1736000	47000	300000	344000	735000	907000	771000
2008	294000	2101000	50000	293000	375000	742000	930000	1193000
2009	366000	1721000	53000	344000	163000	755000	871000	1461000
2010	425000	1973000	81000	426000	196000	746000	935000	1718000
2011	481000	1973000	186000	398000	225000	767000	965000	1902000
2012	528000	1614000	167000	423000	256000	770000	965000	2113000
2013	650000	1544000	191000	433000	196000	795000	993000	1886000
2014	595000	1966000	186333.3	1079000	222000	819000	1039000	1661000
2015	592000	1528000	188833.3	1082000	244000	805000	1151000	1552000

Table A2 Continues

	Namibia	Seychelles	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe
1997	502000	130000	4976000	269000	347000	341000	1336000
1998	614000	128000	5732000	284000	450000	362000	2090000
1999	635000	125000	5890000	289000	564000	404000	2250000
2000	656000	130000	5872000	281000	459000	457000	1967000
2001	670000	130000	5787000	283000	501000	492000	2217000
2002	757000	132000	6430000	256000	550000	565000	2041000
2003	695000	122000	6505000	461000	552000	413000	2256000
2004	716000	121000	6678000	459000	566000	515000	1854000
2005	778000	129000	7369000	837000	590000	669000	1559000
2006	833000	141000	8396000	873000	622000	757000	2287000
2007	929000	161000	9091000	869000	692000	897000	2506000
2008	931000	159000	9592000	756000	750000	812000	1956000
2009	980000	158000	7012000	908000	695000	710000	2017000
2010	984000	175000	8074000	868000	754000	815000	2239000
2011	1027000	194000	8339000	879000	843000	920000	2423000
2012	1079000	208000	9188000	888000	1043000	859000	1794000
2013	1176000	230000	9537000	968000	1063000	915000	1833000
2014	1320000	233000	9549000	939000	1113000	947000	1880000
2015	1388000	276000	8904000	873000	1104000	932000	2057000

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