The Impact of Tourism Development on Economic Development: The Case of Zanzibar

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Authors’ contributions

This work was carried out in collaboration between both authors. Author HAH designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author ZAR managed the analyses of the study. Author ZAR managed the literature searches. Both authors read and approved the final manuscript.

ABSTRACT

Tourism is perceived as one of the world’s fastest growing service sectors and a major source of economic development for many, if not all, developing countries. Zanzibar as a developing country and also is a small island which have small economy, its national income depend much on tourism contribution, Therefore this paper aim to examine the impact of tourism development to the economic development of Zanzibar, using the data based on annual time series from the period 1989–2019 and also employing Vector Error Correlation Model (VECM) to arrive at conclusions from the data in the study area. The study results found a long-run stable relationship among tourism development and economic development of Zanzibar, there is a positive and significant impact that exists between GDP and international tourism arrivals, inflation and government expenditure respectively while only inflation results show positive but insignificant impact. In order to increase the economic development in Zanzibar through the tourism sector, there is a need for the government and other stakeholders of tourism to put much consideration on this sector so as to improve overall development of Zanzibar economy.

Keywords: Tourism; tourism development; economic development; unit root; VECM.
1. INTRODUCTION

1.1 Background

International tourism growth continues to outpace the global economy. About 1.5 billion International tourist arrivals were recorded in 2019 [1-3]. International tourist arrivals to Africa grow at around 5% per annum with North Africa growing at around 4% while Sub-Saharan Africa grows around 6% per annum (ATTA, 2019). Tourism is one of the most important industries in Africa and contributed 8.5% (or $194.2bn) of the continent’s gross domestic product (GDP) in 2018, according to the World Travel & Tourism Council (WTTC). Africa was also the second-fastest growing tourism region with 5.6% growth in 2018 against a global average growth rate of 3.9% (WTTC, 2019). Tourism is now a significant source of income in Zanzibar’s economy and its largest source of foreign exchange (World Bank document 2019). According to national accounts, accommodation and food services earned around $135 million from 520,809 tourist arrivals in 2018; approximately US$ 260 per tourist per visit. Zanzibar’s tourism sector has grown rapidly in recent years, registering 13% year-on-year growth, on average, in international visitor numbers over the past four years (WB, 2019).

The tourism industry has become an increasingly important factor stimulating various factors of the global economy, as it has been widely reported in many studies done in Tanzania and Africa in general [4-9]. Apart from generating foreign exchange revenues, the tourism industry also stimulates economic development, creates employment opportunities, export earnings, tax revenues and service charges and increases the opportunity for new investments [10-13]. It is generally assumed that the expansion of tourism should have a positive effect on economic growth as well as economic development (Akan, 2009).

Tourism is an important economic activity in most countries around the world (Manzoor et al, 2019). Tourism is a service industry with an ability to measure tangible assets in tangible assets all together attracts people from other areas to visit (world tourism organization (WTO)). In the course of their visit people make expenditures and hence the host region or country gets income [14-17]. There is evidence that tourism contributes a lot to the economic development for both developing and non-developing countries through generation of foreign exchange, employment creation and general infrastructure development in other sectors (World Bank document, 2020).

Tourism development is frequently justified by its potential contribution to economic development. It is assumed that tourism can help in achieving the Millennium Development Goals, alleviate poverty, create jobs and empower women (Hawkins & Mann, 2007; UNWTO, 2011). In addition, tourism is increasingly expected to become an agent for sustainable development and green economies (Lipman & Vorster, 2011). Certainly, tourism holds great potential to fulfill all of these roles, contributing to the economic development of destination areas, although in practice many factors may serve to reduce these potential benefits for the host country [18-22]. In other words, despite the support for tourism as an economic development agent its potential may not always be fully realized and serious doubts remain that, without international political intervention and a fundamental transformation of global political structures, tourism can help establish a more even and equitable economic world order (Tanja Mihalic, 2014).

Tourism continues to be one of the best positioned economic sectors to drive inclusive socio economic growth, provide sustainable livelihoods, foster peace and understanding and help to protect our environment. Helen Marrano, senior vice president at the World Travel and Tourism Council (WTTC, 2017) mentioned that for any industry that produces 10% of global GDP and 1 on 10 jobs globally, it is crucially to protect the growth to be sustainable. In promoting tourism in east Africa Countries from a platform which is known as The East Africa Tourism platform (EATP) working toward promoting the interest and participation of the private sector in east Africa communities(EAC) integration process. It also, promotes intra and inter-regional tourism through advocacy, marketing, skills development, research and information sharing [23,24].

One of the reasons why tourists prefer to come to Zanzibar, from an international perspective, is that tourists need to expose new places, people, experiences, perception and resources. Tourists like to travel in Zanzibar because they wish to know about Zanzibar culture and the lifestyle of Zanzibarites. Travelling as a tourist in Zanzibar really makes them relaxed and most enjoyable [25,26]. Zanzibar is the home of idyllic beaches, balmy weather & warm tropical waters, this
archipelago is renowned for clear warm waters, coral reefs and rich marine diversity making it a perfect under-water destination for snorkeling and diving.

The structure of Zanzibar economy depends upon different sectors such as tourism, agriculture, industry, fisheries, business and other services sector (UNICEF, 2019). Zanzibar's economy is based primarily on the production of cloves (90% grown on the island of Pemba), the principal foreign exchange earner. Exports have suffered from the downturn in the clove market (Global security 2017). The Government of Zanzibar has been more aggressive than its mainland counterpart in instituting economic reforms and has legalized foreign exchange bureaus on the islands (IBP USA, Business & Economics, 2009).

The tourism sector on this beautiful island of Zanzibar has been growing rapidly over the years. Today most of the businesses on the island depend on the tourist market. You can never talk about development in Zanzibar without talking about tourism, the two basically go hand in hand [27-30]. According to the Ministry of Labor and Public service about 40,000 people are employed in the tourism industry including half those numbers who are directly employed (Wild WhispersAfrica, 2016).

2. METHODOLOGY

2.1 Study Approaches and Methodologies

The study is based on quantitative technique and uses secondary data collected from several sources. Most of the data were obtained from the office of chief government statistician (OCGS) which are in a time series for thirty years (30 years) which ranges from the year 1989 to 2019. The study uses economic development as a dependent variable and tourism sector development as the main independent variables measured by tourists arrivals. Methodologically the paper employed the Vector Error Correction Model (VECM) to examine the impact of tourism development to the economic development in the study area.

2.2 The Tourism Led-growth Hypothesis (TLGH)

Theoretically, the tourism-led growth hypothesis (TLGH) was directly derived from the export-led growth hypothesis that postulates that economic growth can be generated not only by increasing the amount of labour and capital within an economy, but also by expanding exports (Brida, Cortés-Jiménez, & Pulina, 2016).

According to Telce and Schroen, (2006), tourism is a multidisciplinary activity that involves several industries and draws upon a variety of skills, its benefits are spread over a wider section of society comparatively to other sectors of the economy. Pioneering studies from [Lea, (1988) and Sinclair, (1998)] have highlighted the potential effect of the tourism industry in promoting economic growth, creating new jobs and generating revenue for the government. This economic relationship is known as the Tourism Led-Growth hypothesis.

According to this hypothesis, Sinclair and Stabler, (2002) mentioned that international tourism is considered as a potential factor for economic growth and development in the nation so that, tourist spending, as an alternative form of exports, provides the foreign exchange earnings. Therefore, tourism is used to import capital goods to produce goods and services, which in turn leads to economic growth in host countries. In most developing countries, to satisfy this demand, the current level of production needs to increase. Conversely, international tourism would contribute to increasing income in the nation by enhancing efficiency through increased competition among firms and other international tourist destinations Krueger (1980) and facilitating the exploitation of economies of scale in local firms Helpman and Krugman (1985).

Similarly, Tourists usually demand main goods and services such as accommodation, food, transportation facilities and entertainment services in the host country. According to Balaguer and M. Cantavella, [31,32] provide two positive effects on the economy which are increase in production and income and other, and increase in employment (since the tourism industry is labor intensive). Also, there is a belief that tourism industry development lead to benefit poor people in particular, introducing the concept of "pro-poor tourism". Thus, the tourism industry may contribute significantly in economic growth, employment and reduction of poverty, in particular, the countries that suffer from high rates of unemployment, low levels of per capita GDP and from the exported products facing difficulties in competing internationally, activity
and economic growth have been flourishing recently.

3. RESULTS AND DISCUSSIONS

Section three presents the results and discussion on the impact of tourism development to economic development of Zanzibar. Data analysis uses EVIEWS software and the results presented in tables while VECM are mainly used to answer the objective of the study.

The results of descriptive statistical analysis on LGDP, LITA, LGNTEXP, LINF and LFOREX are presented in table above and the description are as follows:-

- The mean over median ratio for each series is seen to be approximately one while the Range of deviation between the maximum and minimum of each individual series is found to be reasonable in comparison to the mean.
- The standard deviation of the series is found low when it is compared to the mean, which indicates a small coefficient of variation
- Skewness of each variable is found to be mild and positively skewed, except for the INF, which is negatively skewed slightly.
- The numeric of kurtosis for each variable is found below (3), which indicates the normality of distribution
- Jarque-Bera test statistics fails to reject the null hypothesis of normal distribution of each variable (P > 0.05), which confirms that the series are normally distributed

### Table 1. Descriptive statistics analysis results

<table>
<thead>
<tr>
<th></th>
<th>LGDPC</th>
<th>LITA</th>
<th>LGNTEXP</th>
<th>LINF</th>
<th>LFOREX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>12.96030</td>
<td>11.68087</td>
<td>3.815441</td>
<td>2.122196</td>
<td>6.744655</td>
</tr>
<tr>
<td>Median</td>
<td>13.08271</td>
<td>11.48417</td>
<td>3.841601</td>
<td>2.208274</td>
<td>6.945456</td>
</tr>
<tr>
<td>Minimum</td>
<td>10.26837</td>
<td>10.54139</td>
<td>3.190476</td>
<td>-0.356675</td>
<td>4.965498</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>1.256424</td>
<td>0.744010</td>
<td>0.270083</td>
<td>0.903105</td>
<td>0.793310</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.489343</td>
<td>0.540919</td>
<td>-0.497263</td>
<td>-0.794137</td>
<td>-0.738665</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.319730</td>
<td>2.448585</td>
<td>2.926296</td>
<td>3.831080</td>
<td>2.578764</td>
</tr>
</tbody>
</table>

**Source:** Author computation from collected Data (2020)

### Table 2. ADF Unit root analysis results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level T-Statistic</th>
<th>T-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDPC</td>
<td>-1.224203</td>
<td>-3.250680</td>
</tr>
<tr>
<td></td>
<td>(0.6488)</td>
<td>(0.0278)</td>
</tr>
<tr>
<td>FOREX</td>
<td>-2.334537</td>
<td>-5.794865</td>
</tr>
<tr>
<td></td>
<td>(0.1683)</td>
<td>(0.0000)</td>
</tr>
<tr>
<td>LGNTEXP</td>
<td>-2.047171</td>
<td>-4.929973</td>
</tr>
<tr>
<td></td>
<td>(0.2663)</td>
<td>(0.0004)</td>
</tr>
<tr>
<td>INF</td>
<td>-2.374237</td>
<td>-4.761625</td>
</tr>
<tr>
<td></td>
<td>(0.1574)</td>
<td>(0.0007)</td>
</tr>
<tr>
<td>ITA</td>
<td>-0.079132</td>
<td>-6.692988</td>
</tr>
<tr>
<td></td>
<td>(0.9430)</td>
<td>(0.0000)</td>
</tr>
</tbody>
</table>

**Source:** Author computation from collected Data (2020) using EVIEWS 12 software
Table 2 shows the results for the unit root test (ADF). The results indicate that it cannot reject the null hypothesis of unit root at level. However, after taking the first difference they are able to reject the null hypothesis of unit root. Therefore, the results strongly indicate that all the variables are stationary at first difference I(1). Therefore cointegrating relationships may exist among the selected variables. Once the unit root is confirmed for the time series data, the next step is to find whether there exists some long run equilibrium relationship among the variables that are non-stationary in levels but stationary at the first differences and second difference. To answer this question, cointegration test developed by Johansen (1988) and Johansen & Juselius (1990) is employed as this procedure is known to be the most reliable test for cointegration.

From the results of cointegration in Table 4 both Max Eigen and Trace test indicate, there is a long run relationship between variables including tourism and economic development. So, it rejects the null hypothesis at none and at most 1 but there is cointegration at most 2, 3 and 4 where by probability is greater than 0.05, in both Max Eigen and Trace test, so the study accepts the null hypothesis. Therefore, it is concluded that the series are cointegrated and a long run equilibrium relationship exists among the variables for that reason vector error correction mechanism was applied.

In order to examine the impact of tourism development to economic development of Zanzibar, the vector error correction model was applied so as to meet the second objective of the paper. The Short Run Dynamics model is estimated under the specification of VECM where the equation is regressed with the difference of GDP as a dependent variable against the lagged differences of the independent variables such as ITA, GVTEX, INF and FOREX. The results of the short run Error Correction Model for economic development is presented in the table 3 below.

$$\log GDP_t = 0.269915 + 0.71\log ITA_t + 0.75\log GVTEX_t + 0.11\log INF_t + 0.31\log FOREX_t$$

The table shows that, if all variables are kept constant the GDP will increase by 0.269915. Also the table relates lag difference of GDPC to lag differences of ITA, GVTEX, INF and FOREX. It shows that in the short run, changes in ITA, GVTEX, INF and FOREX affect positively the changes in GDPC indicating the independent variables are positively affecting economic development. Below are the detailed elaborations of the major variables that describe the impact of tourism’s development to the economic development of Zanzibar which are estimated using regression, the results are revealed.

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Statistical Trace</th>
<th>Maximum Eigen</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Critical Value (0.05)</td>
<td>Critical Value (0.05)</td>
<td>Prob.**</td>
</tr>
<tr>
<td>None *</td>
<td>93.56927</td>
<td>69.81889</td>
<td>0.0002</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>54.69239</td>
<td>47.85613</td>
<td>0.0100</td>
</tr>
<tr>
<td>At most 2</td>
<td>23.56007</td>
<td>29.79707</td>
<td>0.2196</td>
</tr>
<tr>
<td>At most 3</td>
<td>7.945311</td>
<td>15.49471</td>
<td>0.4713</td>
</tr>
<tr>
<td>At most 4</td>
<td>2.499498</td>
<td>3.841466</td>
<td>0.1139</td>
</tr>
</tbody>
</table>

Source: Author computation from collected Data (2020). Note: trace test indicates 2 cointegration eqn at the 0.05 level and Max-eigenvalue test indicates 2 co integrating eqn at the 0.05 level. * denotes rejection of the hypothesis at the 0.05 level.

Table 4. Vector error correlation model (VECM) analysis results

<table>
<thead>
<tr>
<th>Co-integrating Eq:</th>
<th>LGDPC(-1)</th>
<th>LITA(-1)</th>
<th>LGVTEX(-1)</th>
<th>LINF(-1)</th>
<th>LFOREX(-1)</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>CointEq1</td>
<td>0.706420</td>
<td>0.752110</td>
<td>0.114441</td>
<td>0.308253</td>
<td>0.269915</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02147)</td>
<td>(0.051269)</td>
<td>(0.06146)</td>
<td>(0.14076)</td>
<td>(0.1139)</td>
<td></td>
</tr>
</tbody>
</table>
3.1 International Tourists Arrivals

International tourist arrivals refers exclusively to tourist overnight visitor, tourist overnight visitor are the visitor who stay at least one night in a collective or private accommodation in the country visited. The number of international tourism arrivals is the most common unit of measure used to quantify the volume on international tourism. From the estimated regression equation above indicate that when everything else is kept constant one unit increasing in international tourism arrivals the GDPC will increase by 0.7 time that of the constant value. This means that an international tourist's arrival has a positive and significant impact on the economic development of Zanzibar.

The increase in GDP means that people in Zanzibar raising their income and their basic necessities are met and so the development is increasing. Therefore the increasing of the number of tourist in Zanzibar has positive impact to the development of Zanzibar through increasing the number of employment for the natives, many local peoples are engaged in tourism sector some of them directly there are also indirect employment from tourism sector such as fishing, the fisherman from coastal area around Zanzibar sell their fishes in big hotels and earn income from that employment.

The finding of this study is compatible with the study of Podhorodecka (2014) which analyses the Impact of Tourist and One-Day Visitor Arrivals on Economic Growth, a Case Study of the Cayman Islands. The study found that there is a positive impact on the number of tourists and the creation of GDP. The study also provides the detailed answer to the question of whether the increase in the number of tourist and one-day visitor arrivals had a positive impact on the creation of GDP in the Cayman Islands during the period 1983-2011.

In spite of the fact that a tourist's arrival has many negative effects but also there are positive impacts, the issue is about how we can control it so as to reduce the negative impact and increase the positive impact. Therefore, on considering the effort made by the government to improve the tourism sector, the effort is not yet sufficient, then the government and other private sectors must put much emphasis on the improvement of infrastructure especially near the tourist attraction so as to attract more tourists and hence improve the economic development of Zanzibaris. Hence the government should rely on the results provided in this study because it's important in economic development.

3.2 Foreign Exchange Rate

The exchange rate between two currencies is the rate at which one currency will be exchanged for another. A currency will tend to become more valuable whenever demand for it is greater than the available supply, it will become less valuable whenever demand is less than available supply. International Exchange Rates are an important indicator of the overall state of an economy. There are many ways to measure exchange rate but in this research, we use the most common method of measuring exchange rate which is a bilateral exchange rate. A bilateral exchange rate refers to the value of one currency related to another, and it is typically quoted against the US Dollar, as it is the most attractive currency in the world.

The results reveal that there is a positive relationship between foreign exchange rate and economic development in Zanzibar. This means that, the coefficient of FOREX indicates that for every one percent increase in foreign exchange rate, the GDP per capita which is the economic development will increase by 31 percent or by 0.31unit. Not only does FOREX have a positive impact on GDP but also the results are also significant, which means that FOREX has a significant impact on GDP.

Exchange rate is very important to any country, especially developing countries. In every tourism economy around the world, it’s clear that the exchange rate is the one piece of the equation. Foreign exchange earnings have contributed much to the GDP of Tanzania and in any where. While foreign exchange is only one part of a larger picture of a country's tourism situation. Therefore the island like Zanzibar and Tanzania in general, though the currency is depreciating as days go on, still the country's GDP is increasing and earning more from foreign exchange rate.

The study finds that the exchange rate can either positively or negatively affect tourism and that the exchange rate can be used to estimate the demand for tourism in a given country. Sinclair & Stabler (1997) suggest tourists take the exchange rate into account when choosing which locations to visit and that an enforced low exchange rate regime could promote the growth
of tourism even when information about relative money values is limited.

Therefore, the Bank of Tanzania (BOT) must monitor foreign exchange business in order to ensure that rules and regulations are adhered to, not only that but also BOT should control exchange rate movements, and respond accordingly whenever problems occur. Moreover, the government must put much emphasis on export products so as for Tanzanians to export more this is because Export is the main factor affecting exchange rate in Tanzania as explained in chapter four above.

### 3.3 Inflation

Inflation refers to the persistent rise in the general price level. Inflation affects the distribution of both income and wealth. Stable inflation is recognized as an integral component of sound macroeconomic policies. Four different price indices can be used to measure inflation rate: the consumer price index (CPI), the wholesale price index (WPI), the sensitive price index (SPI) and the GDP deflator. In Zanzibar, the main focus is placed on the CPI as a measure of inflation as it is more representative with a wider coverage of food and non-food items, also it most closely represents the cost of living.

The results from the estimated regression equation indicates that when everything else is kept constant one unit increase in inflation cause an increase of the Zanzibar economic growth by 0.11 units. Meaning that inflation rate has a positive and insignificant effect on economic development of Zanzibar at five percent level of significance, the sign of the coefficients is consistent with a priori expectation and economic theory. Therefore we conclude that the presence of insignificance of one variable which is inflation, it may be caused by the small sample size, due to this reason further studies are essential to be done in this area.

Inflation has many impacts on social welfare, among the impact of inflation is to make life difficult for those who have low income, the poor people who purchase goods for retail are the one who feel the pain of inflation. In addition to that, nominal incomes of some individuals tend to increase with inflation, while those of others remain constant thus causing a change in the distribution of income in favor of the other group.

The result is similar to many studies like Goodwin et al (2010) in his paper he analyzed the effects of inflation on economic growth in industrial and developing countries using panel estimation for a large sample of industrial and developing countries. The study found that there is a significant negative effect of inflation on economic growth.

Azam et al. (2018) on his topic inflation and economic growth. Based on data of the study, the Least Squares and traditional panel estimation techniques were used. The Least Squares results revealed that inflation has a negative and statistically significant impact on economic growth in all sampled countries. Similarly, the panel data techniques were also confirmed to be negative with a significant relationship between the rates of inflation and economic growth. Thus, the main points emerging are that inflation is not helpful but harmful to the rate of economic growth.

The earlier empirical studies have shown positive association, such as, Tobin (1965) found that inflation contributes to economic growth. As stated earlier, the study of Mallik and Chowdhury (2001) investigates the long-run and short-run dynamics of linkage between inflation rate and economic growth. The study finds interesting result which is positive and significant linkage between inflation and growth for all countries of analysis; the study of Umaru and Zubairu (2012) used data from 1970 to 2010 and employed the Granger Causality test to assess for inflation effect on economic growth in the case Nigeria. The results reveal that inflation contributes positively to the economic growth of Nigeria by boosting productivity and output level in the country.

Once inflation sets in, it is difficult to reduce inflation and its effect does not remain to individuals but it affects the entire nation. Therefore, expectations of inflation are important. If people expect high inflation, it tends to be self-serving, even though monetary policy may not be able to deal with such shocks directly, it stills under the duty of the BOT to ensure that the magnitude of exogenous shocks is constrained. The central bank should consider policies aiming at cutting down the prices of non-food items. For instance, the results detected a clear impact of exchange rate on inflation. Given this, measures on controlling fluctuations in domestic money market would be of a great help in alleviating exogenous inflationary pressures in Tanzania.
3.4 Government Expenditure

Government expenditure refers to the purchase of goods and services, which include public consumption and public investment, and transfer payments consisting of income transfers (pensions, social benefits) and capital transfer. The acquisition by governments of goods and services for current use, to directly satisfy the individual or collective needs of the community, is classed as government final consumption expenditure. This study uses total government expenditure to measure its impact on the economic development of Zanzibar.

The coefficient of government expenditure indicates that one unit increase in government expenditure leads to an increase in GDPC by 0.75, the positive coefficient of government expenditure may be due to the fact that the government spending is well utilized. And people are benefited from the government spending such as provision of employment from capital expenditure. The increase in GDPC showed that development is increased due to the increasing of government expenditure.

These results are supported by the theory's grounds, it is known from the basic theory that there is a positive relationship between government expenditure and GDP, whenever the government decide to spend more lead to expand a lot of opportunities to the citizens of that country. The positive relationship between economic development (Y) and government tourism expenditure (GT) is in line with Lau et al. (2008), Dwyer & Kulendran (2008), Gulcan et al. (2009), Ishikawa and Fukushige (2009). In other words, the results reveal government spending on tourism has translated to meaningful growth in the short run. Also this study results are compatible with E.L. Kimaro et al. (2017), T.L.A. Leshoro (2017), D. Lupu et al. (2018), L.U. Okoye et al. (2019) and Sheyla Nyasha et al 2019.

Kimaro et al, 2017 on its paper concerned with the Government Expenditure, Efficiency and Economic Growth, the paper uses a panel data of 25 Sub-Saharan African low income countries spanning from 2002 – 2015 which are obtained from World Development Indicators (WDI) database. Finally Generalized Methods of Moments (GMM) is applied to answer the two research questions. The results demonstrate that increasing government expenditure accelerates economic growth of low income countries in Sub Saharan Africa.

The policy implication of these results is that there is a greater chance that the impact of government spending can lead to the growth of the real sector, especially when expenditure is on growth then enhancing activities such as domestic public investment that crowds in private investment, such as targeted economic infrastructure development. In addition to that, the government and other stakeholders must use the government money to invest in capital expenditure so as to generate more jobs, this will improve the disposable income of the people and expand the consumption in the county and finally will produce a multiplier effect.

The result obtained from the dynamic model indicates that the overall coefficient of determination ($R^2$) shows that 78.19 % GDP is explained by the independent variables in the equation. As the adjusted ($R^2$) tends to eliminate the influence of the number of included explanatory variables, the adjusted $R^2$ of 0.6625Tzs shows that having removed the influence of the explanatory variables, the dependent variable is still explained by the equation with 66.25 %. However, the coefficient of ECM is 0.014269Tzs reveals that there is no speed of adjustment between the short-run and long-run realities of the cointegrating equations annually. This is because; the ECM coefficient is not consistent with the assumed negative value. The F-statistics at 4.87 255$ explains that the coefficients of the variables are not zero.

Table 4 (b)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.7819670</td>
</tr>
<tr>
<td>Adj. R-squared</td>
<td>0.662530</td>
</tr>
<tr>
<td>Sum sq. residuals</td>
<td>0.006676</td>
</tr>
<tr>
<td>F-statistic</td>
<td>4.872553</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>77.04945</td>
</tr>
<tr>
<td>ECT</td>
<td>0.014269</td>
</tr>
</tbody>
</table>


4. CONCLUSION

The paper examines the impact of tourism development to economic development in Zanzibar. The finding of this study supports the analysis that tourism development has a positive impact with economic development of Zanzibar in which a vector error correction model (VECM) was applied so as to meet the objective. The Short Run Dynamics model is estimated under the specification of VECM where the equation is regressed with the difference of GDP as a dependent variable against the lagged differences of the independent variables such as ITA, GVTEX, INF and FOREX.

From the estimated regression equation the results show that if all variables are kept constant the GDP will increase by 0.269915. One unit increase in international tourism arrivals the GDPC will increase by 0.7 times that of the constant value, This means that international tourists arrivals have a positive and significant impact to the economic development of Zanzibar. Increasing international tourist arrivals has also increased the number of employment for the natives, many peoples are engaged in the tourism sector, some of them directly, there are also indirect employment that come from the tourism sector.

In addition to that, the results reveal that there is a positive relationship between foreign exchange rate and economic development in Zanzibar. The coefficient of FOREX indicates that for every one percent increase in foreign exchange rate, the GDP per capita which is the economic development will increase by 31 percent or by 0.31 unit, which means that FOREX has positive and significant impact on GDP. If the exchange rate is not stable it can affect many related sectors in the economy, especially the tourist sector. This is because tourists will be uncomfortable coming to Zanzibar because an unstable exchange rate will disturb their budget.

Furthermore the results revealed that when everything else is kept constant one unit increase in inflation causes an increase of the Zanzibar GDP per capita by 0.11 units. Meaning that inflation rate has a positive and insignificant effect on economic development of Zanzibar at five percent of significance. The results from the estimated regression equation also indicate when everything else is kept constant one unit increase in Government expenditure causes an increase of the Zanzibar economic growth by 0.75 units. Government expenditure rates have a positive and significant impact on the economic development of Zanzibar.

4.1 Policy Implication and Recommendations

There is the need for government intervention into the tourism sector through relevant policies such as enhancing the tax body on all foreign companies dealing with tourism activities within the country, the development of the tourism sector will also lead to the development of other related industries. Therefore, the finding validates the necessity of the government to work closely with stakeholders of the tourism industry in Zanzibar to increase their promotions as well as development of their products and services in promoting and increasing international tourism demand which encourage and attract more and more tourists from different parts of the countries. Zanzibar Island should ensure the political, economic and social stability, which are very important for the attraction of more tourists to come to Zanzibar especially those high quality tourists.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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