



Does tourism contribute to local economic development (LED) in the City of Cape Town Municipality? A time series analysis

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Abstract

Local economic development (LED) is envisioned to improve local economic challenges. Unfortunately the City of Cape Town local municipality is dominated by poverty, inequality, stagnant economic growth and unemployment. Despite these challenges, researchers contend that tourism is a vehicle to local economic development. Thus, the purpose of the paper was to examine the influence of tourism on LED in the Cape town city municipality from 1994-2018. In achieving this purpose, the study used a Vector Error Correction Model (VECM) time series analysis and the Granger Causality analysis. The results show a positive relationship between exports, number of tourists and local economic development. Contrawise, tourism receipts are negatively related to local economic development. Notable is that local economic development and tourism receipts have a positive relationship in the short-run. The study therefore recommends the enforcement of a tourism policy that specifically benefits the residents more than the business people and entrepreneurs.

Keywords: tourism, Cape Town municipality, time series, Vector Error Correction Model, local economic development

Introduction and Background

South Africa is one of the middle income countries endowed with natural resources. However, not everyone is benefiting from these natural resources since the majority of South Africans are living under severe conditions (Nonyana, 2018). This is shown by the number of people living in poverty (56 percent), increasing unemployment (29 percent) and stagnant economic growth of 1.1 percent (Statistics South Africa, 2019 & National Treasury, 2019). The aforementioned economic conditions have affected local economic development (Garidzirai, Meyer & Muzindutsi, 2019). Thus, the majority of the community members are without jobs, living without basic commodities and their economies are less competitive. Even though the local municipality is dominated by these economic challenges, tourism plays a crucial part in developing local economies. Husegeni, Doru and Tunc (2017) propound that tourism is one of the economic pillars in local municipalities as it provides infrastructure development, foreign currency, employ locals and eventually improves economic development. Since the City of Cape town is one of the top municipalities in Africa that attracts tourists, most attention has been given to its tourism industry.



This has wedged the attention of analysts, economists and researchers into focusing more on its contribution to local economies.

It is pertinent to stress that tourism contributes to business, employment and households (Kum, Aslan & Gungor, 2015). For instance, tourism activities increase the sales, profits and revenue of the region (Mucharreira, Antunes, Abanja, Justino & Quiros, 2019). This is achieved through the multiplier process where the marginal propensity to consume keeps on creating more household's income, in turn, the income is spent back in the economy. Thus, more jobs are created through the manufacture of merchandises and facilities in the accommodation, transport, operation, catering and travel agency sectors. (Makochekanwa, 2013). Furthermore, it is worth noting that the living standards of the region is improved through human capital formation since people learn on the job and some are sent to universities to improve themselves. On the other hand, the increase in tourists negatively affects local residents as local firms tend to increase their prices due to high demand. Put differently, the increase in tourism leads to inflation in a local region (Shaari, Ahmad & Razali, 2017). The authors further argue that businesses would want to take advantage of tourists and increase the prices of goods and services while disadvantaging the local people.

The Western Cape cannot be exempted from experiencing South Africa's national socio-economic challenges. Important to note is that the local municipality is dominated by stagnant economic growth, unemployment and absolute poverty. Statistics South Africa (2019) and the Western Cape Province Treasury (2019) reports that the municipality unemployment rate is 20 percent which is below the nation's unemployment rate of 29.7 percent (Statistics South Africa, 2019 & Western Cape Province Treasury, 2019). Though the unemployment rate is below the nation's unemployment rate, it is way above the acceptable unemployment rate of 2 percent. This has compromised the local economic development. On a positive note, the Western Cape Province Treasury (2018) reports that tourism in the municipality is growing year by year and the number of domestic and international tourists is increasing. Though the sector is underestimated, it can improve LED if well maintained. Pedrana (2013) also attests to the fact that tourism is a catalyst to local economic development.

Furthermore, there is a growing trend on the studies done on economic growth, poverty alleviation, employment and tourism. These studies are mainly categorised into two: multi-country group studies and single country studies. However, there are a few studies that focused on tourism and local economic development Pedrana (2013), Meyer and Meyer (2015) and Olivier (2017). The mentioned studies focused more on qualitative research methods. Furthermore, Pedrana (2013), Meyer and Meyer (2015) and also Olivier (2017) focused more on a participant's perception to measure local development. From the empirical studies examined there is no study that used an index to measure LED. Importantly, there is no single study identified that focused on LED and tourism in the City of Cape Town municipality. Thus, this paper scrutinised the influence of tourism on LED in the City of Cape Town municipality. As part of the contribution, this study tested the new LED measure as a step towards achieving the National Development Plan of 2030 objectives Garidzirai et al. (2019). The authors combined economic growth, employment and poverty alleviation to make it one measure (local economic development).

The study is organized in five sections. The opening segment discusses the stylized facts about the City of Cape Town municipality while section 2 deliberates on the theoretical and empirical literature. The third part converses the methods, data sources and the prior expectations. The results and discussion of results are discussed in segment 4 whereas, section 5 gives the summary, conclusion and recommendations of the study.



Stylized facts on City of Cape Town municipality

Though the City of Cape town economy is sluggish, the tourism segment has shown pliability in the province. The Western Cape Province Treasury (2019) mentions that the City of Cape town municipality is one of the best visited municipalities in the region over the last decade. This trend is also in line with the observation of Makochekanwa (2013) who predicted a surge in the number of tourists in the region. Currently, about 3 million international tourists were recorded in the municipality in the year 2018 and the number is expected to increase in the upcoming ten years (Statistics South Africa, 2018). These tourists are from Germany, United Kingdom, United States of America, France, Netherlands, Italy and Brazil (Cape Town Tourism, 2019). Likewise, there is also a succeeding increase in local tourists. This is an indication that the local municipality is attractive and environmental friendly. Although most tourists use the City of Cape town municipality as their destination, an exodus of a few tourists proceeding to other local municipalities is evident (Western Cape Province Report, 2019).

Since tourism is becoming important in the municipality, there has been a growth in the amount of people employed in the local municipality (Cape Town Tourism, 2019). A majority of jobs were created in accommodation, transport, operation, catering and travel agency since the government stipulated that tourism activities should benefit South African citizens (South Africa Yearbook, 2017). It is also imperative to note that, the Cape town municipality is the highest tourism revenue municipality in the province. The local municipality raises more than a million rand every year (Cape Town Tourism, 2019). These are receipts from tourist attractions like Table Mountain, Robben Island, Kirstenbosch Gardens, Signal Hill, Camps Bay, Waterfront and Good Hope just to mention a few (Cape Town Tourism, 2019). Though tourism has contributed to employment and revenue, more is still to be done in the sector to contribute to economic development. This calls for tourism authorities and government to enhance and improve the activities for LED. Therefore, the success of the tourism industries depends on economic functioning, climate and policies (Makochekanwa, 2013)

Literature Review

Theoretical Framework

The connection between tourism and LED is important. Such an association is linked to the classical development and the structural change theory. The classical economic development theory contends that any increase in profits improves the region's local investments level (Harris, 2007). The investments create employment, increases production and leads to an increase in the salaries and wages (Engel, 2010). Thus, tourism activities increase the region's profits through the receipts received from tourists. These receipts are used to further develop infrastructure development, thereby creating employment in the region. This will reduce the unemployment rate that is currently at 20 percent (Western Cape Provincial Treasury, 2019). Furthermore, the employed households get increased wages that will make them live above the poverty line while also improving the economic growth of the region. The classical economic development theory is directly linked with the structural change model.

The structural change model focuses on modern sectors such as tourism and trade sectors. Traditionally the developing countries were more concerned about traditional sectors such as mining, agriculture and construction and yet less output was produced (Todaro & Smith, 2006). Contrary to traditional sectors, the structural change theorists argue that modern sectors are the agents of local economic development (Dang & Pheng, 2015). The theorists uphold that all the resources should be invested in the tourism sector for local economic development to improve as the sector is associated with high productivity. For instance, the empirical literature researched stipulates that tourism has improved some of the poor residents in the municipality. Therefore,



the government, non-governmental organisations and the community should involve themselves in the tourism activities for the betterment of the City of Cape town municipality.

Empirical Review

There is a noticeable increase on studies that links tourism, poverty alleviation, growth and employment (Bal, Akca & Bayraktar, 2016; Chou, 2013; Croes & Rivera, 2017; Gordeli & Direcki 2017 and Phiri, 2016). The aforementioned studies focused on a single country and multiple countries. Moreover, there is no study that combined the aforementioned three variables: poverty alleviation, economic growth and employment. Some studies that attempted to scrutinize the connection between LED and tourism focused on qualitative methods (Meyer & Meyer, 2015; Pedrana, 2013).

Gordeli and Direcki (2017) studied the impact of tourism revenue on economic growth in the OECD countries. The study was done between 1997-2012 using the panel cointegration tests: KAO and Pedroni cointegration. The results show a positive association between the two variables. The authors argue that tourism brings revenue that is later transformed into economic growth. The same result was established by Phiri (2016) who studied the association between tourism and economic growth in South Africa using the cointegration tests. Notable is that both studies obtained the same results despite different geographical locations and different methodologies. Researchers came to the same conclusion that tourism is a key component to economic growth.

A study done in Turkey by Bal, Akca and Bayraktar (2016) studied the role of tourism on economic growth. To achieve this objective, the study used a Johansen cointegration and granger causality test. The results illustrate a positive association between the variables under study. The same results were also shown by the granger causality tests. A similar result was found by Meyer and Meyer (2015) who employed a qualitative research method to measure the contribution of tourism on LED in the Vaal region. The authors argue that tourism provides income, employment and economic development in a country. In India, Sharma (2018) studied the contribution of international tourism on economic growth. The authors employed the granger causality and Johansen cointegration. The study shows the same results obtained by Bal, Akca and Bayraktar (2016) and Meyer and Meyer (2015) despite different geographical locations and policies in these countries.

Makochekanwa (2013) studied the impact of tourism on economic growth in the Southern Africa Development Countries (SADC) region. The study used tourism to measure GDP, employment, export receipt and investment. In all the SADC countries, Mauritius and Seychelles were found to rely on tourism. Another study by Husegni, Doru and Tunc (2017) studied the role of tourism on economic growth in Turkey from 1980-2014. The study employed the Johansen and results show that all the variables are cointegrated and a long-run positive relationship was established among the variables. Contrawise, Chou (2013) established an inverse association between economic growth and tourism revenue in Slovakia, Bulgaria and Romania after employing a panel data analysis from 1988-2011.

Deviating to poverty alleviation and employment from economic growth, Mthembu and Mutambara (2018) investigated the role of rural tourism on poverty alleviation in the Kwazulu Natal Province. The study used a quantitative technique by designing a questionnaire that targeted 330 participants. The results show that tourism influences employment and later alleviates poverty in Kwazulu Natal. Croes and Rivera (2017) share the same sentiment that poverty alleviates tourism in Ecuador. The study used the Social Accounting Matrix (SAM) and found the same results as those found by Mthembu and Mutambara (2018). Another study by Yusuf and Ali (2018) examined the poverty reduction and tourism relationship in Tanzania. The



study employed a VECM approach. The results show that tourism reduces poverty and promotes economic growth. The results are different from Samimi, Sagedhi and Sagedhi (2011) who investigated the association between tourism and employment. The authors used the panel data from 1995-2009. The study found that tourism reduces employment.

The reviewed literature proposes conflicting opinions concerning the role of tourism on economic growth, poverty alleviation and employment. More studies show a positive relationship among the variables while few accounted an inverse relationship (Chou, 2013; Samimi, Sagedhi & Sagedhi, 2011). The studies that subscribe to a positive relationship came to the conclusion that tourism provides income and employment to households. On the other hand, those who subscribe to an inverse relationship opine that tourism can contribute to employment and economic growth but does not contribute to economic development. Thus, the current study aims to contribute to the existing scant literature using the VECM.

Research Methodology

Theoretical model

The theoretical framework that supports the research methodology is the structural change model. The model indorses tourism and trade modern sectors for LED. Thus, the empirical model is illustrated in equation 1.

$$LED_t = \alpha + \beta_1 \lnexp_t + \beta_2 \lntr_t + \beta_3 \lnnt_t + \varepsilon_t \quad 1$$

Where LED is a dependent variable representing local economic development in the City of Cape Town municipality. \lnexp is an independent and control variable representing the exports in the local municipality while \lntr is the tourism revenue in the local municipality. The number of tourists in the City of Cape town local municipality is represented by \lnnt , while $\beta_1, \beta_2, \beta_3$ represents the coefficients that are being estimated and ε_t is the error term.

Data Description

The study used secondary and time series data from 1994-2018. The data was sourced from the Global Insights (2018). This study used the variables that were also employed by other researchers with the aim of comparing the study results with other empirical results. Thus, the study used local economic development, exports, number of tourists and tourist receipts. LED is an economic initiative where all the stakeholders join hands in improving local economic growth, job creation and poverty reduction (du Plooy, 2017). From the definition, there are three economic concepts: poverty alleviation, employment and economic growth. The mentioned three economic concepts were used to make one measure (local economic development). Each of the aforementioned measures was assigned a weight according to its importance (Garidzirai et al., 2019). Thus, economic growth weighed 0.4 while employment and poverty alleviation weighed 0.3 each (Garidzirai et al., 2019). Economic growth had more weights since the economic theory prescribes that economic growth creates jobs and eventually eradicates poverty (Dyan & Sheiner, 2018 and Mohr, 2015). The local economic development measure was used by Garidzirai et al. (2019). Economic growth was measured by goods and services produced in the City of Cape town local municipality whilst considering the population in the region (Ngunjiri, 2017). On the other hand, employment was measured as the number of people working in a region, while poverty alleviation was measured by the amount of individuals above the poverty line in a region (Krongkaew, 2016 and Meyer and Meyer, 2015).

Of note is that exports, number of tourists and tourism receipts were used as independent variables. Exports are goods and services produced in a region (Matthee & Henn, 2015). This measure was employed by prominent researchers such as Ambreen and Abdul (2018) and



Ahmad, Afzal and Khan (2017). The study expects a positive association between LED and tourism. The rationale is that tourists buy goods and services from the local municipality that will bring receipts to the region and improve LED. The second independent variable is the number of tourists that was measured by tourists arriving in the local municipality. This measure was used by (Murrilo & Zelenda, 2018). This study expects a positive connection between LED and the number of tourists. The justification is that when the number of tourists increase more people are employed, more revenue is obtained and eventually local economic development is improved. Lastly, tourism receipts are an indicator of all the economic transactions that give returns to the local municipality (Dupeyras & MacCallum, 2013). This measure was employed by several researchers such as Bal et al. (2016) and Husegni et al (2017). The study expects a positive link between tourism receipts and LED. The rationale is that the income from tourism activities improves local economic development.

Stationarity Test

Stationarity test is the first step in research analysis. The purpose of the stationarity test is to determine the stationarity of variables under study (Mazenda, 2012). Schwert (1989) further stipulates that stationarity tests ascertain the order of integration. In other words, the stationarity tests determine the methodology to use. For instance, if the variables under study are integrated at order zero then an ordinary least square is applied (Mongale, 2016). On the other hand, if the variables are a combination of zero and one then an Autoregressive Distributive Lag is employed while VECM and Vector Autoregressive are employed if the variables are integrated at order one (Granger, 1993). To test for stationarity, the Phillips-Perron and Augmented Dickey-Fuller tests were employed. The rule of thumb is that if the p values are more than 10 percent, then the null hypothesis is accepted that the variable is not stationary.

Another important step is the determination of lags. This is done to circumvent biased results and serial correlation (Pesaran *et al.*, 2001). Mokatsanyane (2016) outlined that smaller lag length provides better error correction parameters. Therefore, the study compared AIC, HQIC and SC.

Cointegration Test

This is the second test in research analysis. The objective of this test is to identify if a long-run relationship among the variables under study (Banerjee et al. (1998). To achieve this, a Johanesen Cointegration was used as it identifies the cointegration vectors in the variables using the trace statistic and maximum eigenvalue (Harris, 1995:52). Moreover, the Johanesen cointegration provides robust results. The ultimate rule is that p value should be less than 10 percent for a long-run relationship to exist.

Vector Error Correction Model

Since a long-run relationship was found, it is imperative to discuss the short-run relationship. The short-run puts emphasis on the short-term economic dynamics of the variables under study. This is done by analyzing an error correction model (error term). An error term illustrates if the disequilibrium moves back to the equilibrium the following year (Mazenda, 2013). Jaupllari and Zoto (2013) stipulate that an error correction should be negative and significant. The Vector Error Correction Model is illustrated in equation 2.

$$\Delta Y_t = \beta_1 \Delta X_t + \beta_2 (y_t - 1 - y_{t-1}) + \mu_t \quad 2$$

Where $y_t - 1 - y_{t-1}$ represents an error term. In other words, a dependent variable should change as a result of explanatory results. The change leads to disequilibrium which should be corrected in the upcoming year (Jaupllari and Zoto, 2013).



Granger Causality Test

Subsequently after the VECM analysis this paper applied the causality analysis. The objective of the Granger analysis was to find the association among the variables (Gujurati, 2004). In other words, the Granger Causality shows the variables that cause each other. If the p value is more than 10 percent, then the null hypothesis that the variables do not granger cause each other is accepted. After performing the granger causality test, the last step is to assess the robustness of the results. The test includes the serial correlation, heteroscedasticity and normality using the LM test, Pagan Godfrey test and the Jarque-Bera test. All these tests have the same null hypotheses and if the p-values are less than 10 percent then it means the models have serial correlation, heteroscedasticity and normality and the vice versa is true.

Results and Discussions

Unit root test Results

As aforementioned that stationarity test is the initial stage in economic analysis. The study employed PP and ADF methods and the results are illustrated in table 1. Table 1 illustrates that LED, Inexp, Intr and Innt are not stationary at levels since their probability values are more than 10 percent. However, these variables were stationary when first differenced as the probability values were less than 10 percent. Therefore, the variables under study are integrated at order one 1(1). Thus, the next step is to discuss and analyse the Johanesen cointegration tests.

Table 1. Stationarity test results

ADF test			PP test		
Variables	Level	1 st Diff	Level	1 st diff	Decision
LED	-0.1967	-3.4803*	-1.7043	-4.5702*	1(1)
Inexp	-4.0067	-6.904***	-5.0516	-7.2347***	1(1)
Intr	-3.4091	-6.0976***	4.3958	-6.7147***	1(1)
Innt	-1.7273	-3.8297***	-6.2735	-3.4910***	1(1)

Note: ***, **, * represents 1%, 5% & 10% respectively

The results of lag length are shown in table 2. The results show that the study adopts a 1 lag and thus the cointegration analysis is conducted using one lag.

Table 2. Lag Length Analysis

Lag	LogL	LR	FPE	AIC	SC	HQ
0	72.0984	-	1.4897	-5.5201	-4.8790	-4.0123
1	150.4987	141.5692***	1.6372***	-7.8720***	-8.6295***	-7.7635***
2	190.6301	40.6752	1.8736	-7.6105	-8.1409	-7.3017
3	200.3017	25.8903	2.6922	-8.9820	-5.4364	-8.9048

Note: ***, **, * represents 1%, 5% & 10% respectively

Cointegration

Since the variables under study are integrated at level one, the cointegration was used to assess if the long-run relationship exists. The maximum eigenvalue and trace statistic tests are shown in table 2. The results of maximum eigenvalue and trace statistic reject the null hypothesis of no cointegration at 5 percent. Therefore, the results show two cointegration equations and a long-run relationship exists



Table 3. Cointegration test

Hypothesised number of CE(s)	EigenVAL	Trace stats	0.05 critical value	Probability**
None*	1.6467	43.3089	38.8561	0.1503
At most 1	0.4010	20.4624	30.7971	0.3920
At most 2	0.2364	9.6956	16.4947	0.3046
At most 3	0.1748	4.0347	6.8413	0.0446**
Maximum Eigenvalue				
none	0.6467	21.8465	27.5843	0.2284
At most 1	0.4010	10.7638	21.1316	0.6708
At most 2	0.2364	5.6639	14.2646	0.6566
At most 3	0.1748	4.0347	3.8415	0.0446**

Note: ***, **, * represents 1%, 5% & 10% respectively

VECM Results

Since there are two cointegration equations, the study therefore employed a Vector Error Correction Model. The VECM permitted the researchers to analyse both the short-run and long-run relationship between tourism and local economic development. Thus, the long-run relationship is discussed in the subsequent subsection.

Long-run Analysis

The long-run results of the study are illustrated in table 3 and equation 3.

$$LED_t = 4.027_t + \lnexp 1.08_t - \lntr 0.172_t + \lnnt 2.06_t \quad 3$$

The study found that exports and number of tourists positively influence LED. Exports were found to be positively related to LED and this relationship was significant at 0.05 level. Thus, an increase of 1 percent in exports improves local economic development by 1.0825 percent. The result is well-matched with the economic theory that stipulates that exports improves the standard of living in a local area. The same results were found by Garidzirai et al (2019) and Haddad (2011). The researchers concluded that exports increase production, create more jobs and eventually minimize poverty in a local municipality.

The number of tourists was found to be significant and positively linked to LED at a 5 percent significance level. Thus, an increase of 1 percent in the number of tourists improves local economic development by 2.0629 percent. In other words, an increase in tourists coming to the City of Cape town increases the chances of the residents to be employed and ultimately move out of poverty. The result is in line with the structural change model that promotes modern sectors such as tourism for local economic development. The result is also consistent with other studies Bal, Akca and Bayraktar (2016) and Husegni, Doru and Tunc (2017). On the other hand, the tourism receipts were negatively influencing LED. The prior expectation was a positive relationship between LED and tourism receipts (Dupeyras & MacCallum, 2013). The researchers believe that the receipts benefit business people and entrepreneurs more than the residents. This finding is supported by Chou (2013) who found an inverse association between economic growth and tourism receipts in Slovakia, Bulgaria and Romania. The study further analysed the short-run.



Table 4. Results of Long-run analysis

Variable	Coeff	Stand. Error	t-statistic	P-value
lnexp	1.0825	1.510746	-3.710595	0.01136**
lntr	-3.172097	1.751093	-4.720582	0.04581**
lnnt	2.0629	1.715929	-1.408172	0.0285**
C	4.028672	0.764103	3.082410	0.0000***

Note: ***, **, * represents 1%, 5% & 10% respectively

Short-run Analysis

The short-run results show a speed of adjustment of -0.4639 that is translated to 46.4 percent. The speed of adjustment of 46.4 percent illustrates that any current disequilibrium is corrected in the upcoming year. The speed of adjustment was found to be statistically significant at 1 percent. It is pertinent to note that all the variables are positively linked to LED in the short-run at a 1 percent significant level. Notable is the total receipts that were negatively related to LED in the long-run and is now positively related to LED in the short-run. This means that total receipts improve the living standards for a short-time and this will not translate to economic development. Rather, it improves economic growth and employs the residents for only a short period of time.

Table 5. Vector Error Correction Model

Variable	Coefficient	Std. Error	t-statistic	Probability
CointEq	-0.4639	2.489284	3.602843	0.0000***
lnexp	0.4507	0.184720	-2.720352	0.0000***
lntr	2.4072	0.830172	-4.489047	0.0635*
lnnt	1.2074	1.482649	2.903781	0.0128
C	4.4050	0.793029	3.590371	0.0050***

Note: ***, **, * represents 1%, 5% & 10% respectively

Granger Causality Results

The study assessed if the variables under study granger cause each other and table 5 illustrates the results. A bidirectional causality relationship between the number of tourists in the municipality and LED at a 5 percent significance level. In simple terms, more tourists improve local economic development, whilst local economic development increases the number of tourists in the City of Cape town local municipality. This result is consistent with the studies done by Makochekanwa (2013) and Sharma (2018)

Table 6: Results of Granger causality test

Null hypothesis	P-value
LED do not granger cause lnexp	0.1214
lnexport do not granger cause LED	0.1452
LED do not granger cause lnnt	0.0028***
lnnt do not granger cause LED	0.0190**
LED do not granger cause lntr	0.6591
lntr do not granger cause lnLED	0.6452

Note: ***, **, * represents 1%, 5% & 10% respectively



Post Estimation Results

The post estimation test is the last stage in the economic analysis. The tests were done to assess if there is serial correlation, heteroscedasticity and normal distribution. The rule of thumb is that if the probability values are above 10 percent then the study is free the aforementioned problems. The results of the post estimation results are illustrated in table 6. Since all the variables p-values are more than 10 percent, the study is free form heteroscedasticity and serial correlation. Furthermore, the residuals are normally distributed.

Table 7. Diagnostic tests

LM VERSION				F VERSION		
Test statistic	Type	RS/Stats	P values	F-dimension	F- Stats	P-values
Serial correlation: Breusch-Godfrey	Chi-square (2)	6.092758	0.1289	2.20	0.790274	0.8745
Heteroscedasticity: Breusch-Pagan Godfrey	Chi-square (9)	4.407621	0.5098	5.56	0.9630174	0.5490
Normality of residuals	Jarque-Bera	3.670832	0.6749			

Source: Own Computation

Conclusion

Does tourism contribute to LED in the City of Cape town? This question sought to investigate the association between tourism and LED. The central aim of the study was to contribute to the scant literature on the subject matter. Thus, this study employed a time series analysis from 1994 to 2018 using the (VECM). The results of the study illustrate that exports and number of tourists influence local economic development. Conversely, a negative relationship between tourism receipts and LED was established. Notable is that all the variables positively influence LED in the short-run. The granger causality results further confirm the Vector Error Correction results. The results argue that the number of tourists should increase for meaningful local economic development to take place. Looking at this study results, the researchers suggest that a tourism policy be designed that improves the resident's standard of living and not only centers on the entrepreneurs and business people. It is important to emphasize is that this study had its limitations. The study ignored other qualitative variables that could have provided more robust results. Therefore, this limitation can be addressed by some researchers in the upcoming studies.

References

- Ahmad, D., Afzal, M. & Ghani, U. (2016). Impact of Monetary Policy on Economic Growth Empirical Evidence of Pakistan. *International Journal of Applied Economic Studies*, 4(6). Available at <http://sijournals.com/IJAE/> ISSN: 2345-5721
- Ambreen, F. & Abdul, Q. (2018). Modeling the impact of exports on the economic growth of Pakistan. *Turkish Economic Review*, 5(1), 56-64
- Aslan, A. & Gungor, T. (2015). Tourism Development and Economic Growth in the Mediterranean Countries: Evidence from Panel Granger Causality Tests. *Managing Global Transitions*, 17(4), 363–72.
- Bal. H., Akça, E. E. & Bayraktar, M. (2016). The Contribution of Tourism to Economic Growth: A Research on the Turkey. *Journal of Academic Approaches*, 7(1), 47-62



- Banerjee, A., Dolado, J. & Mestre, R. (1998). Error-correction mechanism tests for cointegration in a single-equation framework. *Journal of Time Series Analysis*, 19(3), 267-283.
- Cape Town Tourism. (2019). *Annual Report*. Available at <https://www.capetown.travel/wp-content/uploads/2018/10/Annual-Report-20182019.pdf>. Accessed on 17 November 2019.
- Chou, M. C. (2013). Does tourism development promote economic growth in transition countries? A panel data analysis. *Economic Modelling*, 33(1): 226–232.
- Dang, G. & Pheng, L. (2014). Theories of Economic Development. *Infrastructure Investments in Developing Economies*, 1(3): 11-26.
- Dupeyras, A. & MacCallum, N. (2013). Indicators for Measuring Competitiveness in Tourism: A Guidance Document. OECD Tourism Papers, 2013/02. OECD Publishing. <http://dx.doi.org/10.1787/5k47t9q2t923-en>
- Du Plooy, L. J. (2017). *Thinking differently about local economic development and governance in secondary cities in South Africa*. North West University, Vanderbijlpark.
- Dynan, K. & Sheiner, L. (2017). *GDP as a Measure of Economic Well-being*. Harvard University -Peterson Institute for International Economics.
- Engel, C. (2010). *An Experimental Contribution to the Revision of the Guidelines on Research and Development Agreements*. Discussion paper 2010-48. Max Planck Institute for Research on Collective Goods.
- Garidzirai, R., Meyer, D.F. & Muzindutsi, P. (2019). The impact of economic sectors on local economic development (led): the case of the Capricorn region, Limpopo province, South Africa. *International Journal of economics and finance studies*, 11(2), 56-75.
- Global Insight. (2019). *Global Insight Regional Explorer data base*. South Africa: Johannesburg.
- Govdeli, T. & Direkci, T.B. (2017). The Relationship between Tourism and Economic Growth: OECD Countries. *International Journal of Academic Research in Economics and Management Sciences 2017*, 6(4), 2226-3624
- Gujarati, D.N. (2004). *Basic econometrics*. Fourth edition. McGraw- Hill International Editions, New York.
- Haddad, B. (2011). The Political Economy of Syria: Realities and Challenges. *Middle East Policy*, 18(2):=, 46-61
- Harris, R.J.D. (2007). *Using Cointegration Analysis in Econometric Modelling*. Harvester Wheatsheaf: Prentice Hall.
- Huseyni, I., Doru, O. & Tunc, A. (2017). The effects of tourism revenues on economic growth in the context of neo-classical growth model: in the case of Turkey. *Ecoforum*, 1(10).
- Jaupllari, S. & Zoto, O. (2013). An Assessment of Demand for Imports through the VECM Model. *Journal of Knowledge Management, Economics and Information Technology*, 3(6), 1-17.
- Krongkaew, M. (2016). *Thailand's Industrialization and its Consequences*. Available at www.palgrave.com/us/book/9780333625194. Accessed on 14 November 2019.



- Makochekanwa, A. (2013). An analysis of tourism contribution to economic SADC countries. *Botswana Journal of Economics*, 11(15).
- Matthee, M., Farole, T., Naughtin, T. & Rankin, N.A. (2015). South African exporters and the global crisis: intensive margin shock, extensive margin hangover. *South African Journal of Economics*, 12(1). Available at: <http://onlinelibrary.wiley.com/doi/10.1111/saje.12094/pdf>. Accessed on 18 October 2019.
- Mazenda, A. (2012). The effect of foreign direct investment on economic growth: evidence from South Africa. University of Fort Hare, East London.
- Meyer, D.F. & Meyer, N. (2015). The role and impact of tourism on local economic development: A comparative study. *African Journal for Physical, Health Education, Recreation and Dance*, 21(1), 197-214.
- Mohr, P. & Fourie, M. (2015). *Economics for South African students*. third edition. Van Schaik, Pretoria.
- Mokatsanyane, D. (2012). *The relationship between political risk, credit risk and profitability in the South African banking sector*. North West University, Vanderbijlpark.
- Mongale, I. P. (2016). *The financial crisis and household savings in South Africa: An econometric analysis*. North-West University, Mafikeng.
- Mthembu, B. & Mutambara, E. (2016). Rural Tourism as a Mechanism for Poverty Alleviation in Kwa-Zulu-Natal Province of South Africa: Case of Bergville. *African Journal of Hospitality, Tourism and Leisure*, 7(4).
- Murillo, A. C. & Zelanda, M. (2018). *Methods and measurement techniques in tourism*. Camacho, A. (2019). A critical review of the book *Methods and measurement techniques in tourism*. *Reseña. Turismo y Sociedad*, XXIV, pp. 211-216.
- National Treasury. (2019). *Economic Overview*. Available at <http://www.treasury.gov.za/documents/national%20budget/2019/review/Chapter%202.pdf>. Accessed on 2 October 2019.
- Ngunjiri, N. 2017. *Is GDP a satisfactory measure of economic growth?* Nairobi.
- Nonyana, J.Z. (2018). Modelling the length of time spent in an unemployment state in South Africa. *South Africa Journal of Science*, 114(12). Available online at <https://doi.org/10.17159/sajs.2018/4313>
- Olivier, J. L. (2017). *The perceptions of stakeholders on local economic development and route tourism on the four deserts tourism route in Southern Namibia*. Central University of Technology, Bloemfontein.
- Pedrana, M. (2013). Local Economic Development Policies and Tourism: An Approach to Sustainability and Culture. *Regional Science Enquiry Journal*, 5(1), 91-99.
- Pesaran, M. H., Shin, Y. & Smith, R.J. (2001). Bounds Testing Approaches to the Analysis of Level Relationships. *Journal of applied econometrics*, 16(3), 289-326.
- Phiri, A. (2016). Tourism and Economic growth in South Africa: Evidence from linear and nonlinear cointegration frameworks. *Managing Global Transitions: International Research Journal*, 14(1), 31-53.



Samimi, A. J., Sadeghi, S. & Sadeghi, S. (2011). Tourism and economic growth in developing countries: P-VAR approach. *Middle-East Journal of Scientific Research*, 10(1), 28-32.

Schwert, G.W. (1989). Tests for Unit Roots: A Monte Carlo Investigation. *Journal of Business and Economic Statistics*, 7(2), 147-160.

Shaari, M. S., Ahmad, S. T. & Razali, S. (2017). *Tourism Led-Inflation: A case of Malaysia*. MATEC Web of Conferences 150, 06026. Available online at <https://doi.org/10.1051/mateconf/201815006026>. Accessed on 20 September 2019.

Sharma, N. (2018). Tourism led growth hypothesis: empirical evidence from India. *African Journal of Hospitality, Tourism and Leisure*, 7(2).

South Africa Year Book. (2017). *Tourism*. Cape town.

Statistics South Africa. (2019). *Gross domestic product*. Statistics South Africa, Pretoria.

Todaro, M. & Smith, S.C. (2006). *Economic Development*. 9th ed. London: Addison-Wesley.

Western Cape Government Provincial Treasury. (2018). *Provincial Economic Review and Outlook 2018*. Cape Town.

Western Cape Government Provincial Treasury. (2019). *Provincial Economic Review and Outlook 2019*. Cape Town.

Authors Contributions

Rufaro Garidzirai was responsible for data analysis, discussions and interpretation of results. The author further compiled the paper (literature review and data analysis and interpretation of the results).

Bulelwa Nguza-Mduba was responsible for introduction and background and literature review.