The Contribution of Tourism to Economic Growth: "A Case Study from the United Arab Emirates(UAE)"

Dr. Mohammed Al-Shami, (dalshami@gmail.com) (CEO, Brain Consulting Dubai, U.A.E)
Dr. Mohammed Naim Chaker, Associate Professor (m.chaker@ajman.ac.ae), College of Business Administration, Ajman University, UAE and
Ms. Ariba Sabah, Research Assistant (aribaazmi@gmail.com) , College of Business Administration, Ajman University, UAE

Abstract

UAE is the fastest growing economy in Gulf Cooperation Council Countries (GCCC) has been widely focused on diversifying its economy. Tourism as an industry has increased its importance, especially in recent years. The present study emphases on tourism and its impact on the economic growth of the United Arab Emirates. The purpose of the analyses cointegration and Granger causality approach has been employed. The data covered in the study is between 1990-2017 on annual basis at their natural log. All the series were stationary at first difference and integrated at order (I). The cointegration results show a long-run relation between tourist arrival and GDP, capital formation, and tourist receipt. The results were validated by the Granger causality test in the case of tourist arrival with tourism receipt and capital formation. However, the results could not be confirmed between tourist arrival and GDP. The results contribute to the policymakers the importance of increasing tourism as there is long- and short-term relationship between receipt and tourist arrival.

Keywords— *Economic growth, tourist arrival, Co-integration, Granger causality, capital formation, and the UAE.*

INTRODUCTION

Tourism could be defined as a collection of all the activities that include leisure or business through traveling and staying in another location (World Tourism Origination). The tourism industry has grown tremendously in previous years. According to the World Tourism Organization in 1950, the tourist arrival was 25 million whereby 2016 it reached up to 1.2 billion. The tourism industry is overall good for the economy it just not brings foreign exchange but also creates many other opportunities such as:

One of the greatest opportunities created by travel and tourism is the creation of jobs. In 2017 a total of 118,454,000 jobs were created worldwide directly whereas indirectly it created about 313,221,000 jobs. The expected creation of job by 2028 is expected to be 413,556,000 jobs. (World Travel and Tourism Council, 2018).

Tourism through export activity affects the balance of payment either the current account or capital account. Samuelson (1972) defines export as the goods and services offered by the home country citizen to the tourist.

This research aims to show the evolution of the tourism industry in the United Arab Emirates. The United Arab Emirate founded in 1971 has now become one of the major tourism hubs for people around the world.

UAE provides a number of opportunities for the tourist such as shopping, adventure, sports culture, and medical. By 2016 the tourism sector contributed

about $68.5 billion to GDP which makes about 5.2 % of GDP. (UAE government, 2018).

- **Institutional setting**

The United Arab Emirates located in the middle east between Saudi Arabia and Oman which was formed by originally six emirates of Abu Dhabi, Fujairah, Dubai, Sharjah, Ajman, Umm al-Quwain and later Ras al-Khaima in 1972. The discovery of oil in 1960 has transformed the country into one of the standards of living for the people. UAE has very positive growing GDP whereby 2017 GDP was about 696 billion dollars which ranks number 32 in the world and per capita GDP of about $68,000 by purchasing power parity. With the oil sector being the leading source of contribution to GDP contributing to 45% of total export and generating about $308.5 billion to the economy UAE is expanding to non-oil sectors (CIA factbook 2019). The expected growth form the non-oil sector is expected to grow up to 3.9% in 2019. However, the overall increase in GDP growth is expected to be 3.7% compared to 2.8% in 2018. The import for the year 2018 is $229.2 billion in 2017 and export reached up to $308.5 billion. With the UAE vision of 2021, it is leading to create a much advance infrastructure which has increased the tourism which helps in increasing the overall economic activity and GDP growth (CIA factbook 2019).

Objectives of the study
- To have an overview of the tourism industry in the UAE.
- To have an analysis of the impact of tourism and growing industry.

LITERATURE REVIEW

Growth is an important component of the economy and since it affects every sector and helps improve the standard of living. Thus, the researchers are always in constant thoughts about what is affecting growth. Broadly in literature, the relationship between growth and tourism has been discussed from two different perspectives. Firstly, tourism could be considered as an exogenous component of demand which ultimately has positive impacts indicators such as income and employment through the effect of the multiplier. Tourism has direct income and employment effect in the result of tourism lead income and expenditure in the multiplier effect (Albaladejo et al., 2014; Kumar et al., 2014; Suresh Senthil Nathan, 2014). Besides providing a balance of payment stability tourism receipt also helps increases the overall productivity

of the firm. (Balaguer and Cantavella-Jorda, 2002). However, this theory has slide drawback as the long-term effect of tourism and growth could not be analyzed. The second theory which is much more common and analyzed is the tourism-led growth hypothesis which much persistence.

Tourism-led growth

The earlier studies have documented the integration and causality between growth and tourism across the different nation, especially how it contributes to development in emerging markets. (Leana, Chongb, & Hooyc, 2014), have studied the nexus of tourism and economic growth as a comparison between Malaysia and Singapore for the period (1980-2009). The result of Granger causality revealed that there is an association between tourism and economic growth in both countries. In Malaysia economic driven tourism growth was observed whereas in Singapore the tourism-led economic growth was observed. The nexus has second by (Brida, Carrera, & Risso, 2008) in their research where they focused on the theory of tourism led growth. By employing the variables of tour expenditure, GDP, and real exchange rate for the period between(1980-2007). They concluded that the tourism-led growth hypothesis is very much relevant in the Mexican economy which is long term effect on the economy. (Kum, Aslan, & Gungor, 2015)have analyzed the impact tourism and growth on next-11 countries for the period between (1995-2013) they have used FMOLS and DOLS along with causality which shows a significant positive relationship between tourism arrival and growth. (Lin, Yang, & Li, 2018) have argued that the country's location and size of the economy plays a major role in determining whether it is TLG that is(tourism-led growth) or EDTG that is (economy driven tourism growth). The results of the study on different provinces in China revealed that those regions that have the bigger economic size and wide geographic coverage experienced tourism-led growth compared to regions which were a less developed and smaller size of the economy which experienced an economy which is driven by tourism. (Jayathilake, 2013) was also of opinion that geographic location does play an important role in providing a tourism increase and henceforth contributing to tourism-led growth. The study on the Sri Lankan economy shows that there was a long-term relationship between GDP, tourist arrival and exchange rate. (Claveria*, 2016) have also analyzed regions-based growth phenomena such as sub-Saharan Africa; southern Europe; northern Europe; Central America;

Caribbean; South America; South Asia Oceania and finally the Middle East the results suggested that the total number of tourists is not correlated with expenditure. (Du, Ng, & Lew, 2016) have analyzed the impact in a different way where they have investigated what are factors behind those relations between tourism growth such as the role of income. The results suggested that investment in tourism is not enough to support the economic growth in the long run rather it would much more effective if it is integrated with long-run strategy.

Emerging markets and tourism

Markets such as India has always been one of the tourist attractions since long. However, with better infrastructure, the rate has increased in the recent past. The authors have analyzed the relationship between tourism and growth along with certain factors such as GDP, foreign exchange, FDI and rate of tourist arrival for the period from 1991 to 2014. The result of causality showed that there was a long-run relationship between the variables. (DayanandaK.C & D.S.Leelavathi, 2016) elaborates that the significant contribution of tourism to the Indian economy is that of creating jobs along with foreign exchange and developing the infrastructure. The vast majority of tourist-attracting to India is due to its wide options available to tourist such heritage, adventure activities, religious activities, fauna and flora among many others.

Reference from a non-traditional approach to causality

methods have been analyzed by researchers to show the relationship between growth and tourism (Selimi, Sadiku, & Sadiku, 2017) have used slight nontraditional approach for showing the connection such as fixed effects model, model of OLS, Hausman Taylor IV model and finally random effect. The results of Western Balkan states concluded that there is a positive relationship between growth and tourism. They also concluded that Hausman Taylor IV model appeared to be most accurate in showing the effect. A different approach was also adopted by (Antonakakis, Dragouni, Eeckels, & Filis, 2017) have used Panel-Vector Autoregressive model to evaluate the relationship between growth and tourism. A test on 113 countries revealed that with countries that are developing and less democratic with very minimal tourism focus have growth that is economically driven whereas stronger economies, have better democracy and special attention by the government

have a bidirectional relationship. (Tang & Tan, 2015) have used a traditional method of causality on Malaysia to investigate the level of relationship between tourism and growth. They found both short- and long-term relationship, where the growth was caused as a result of tourism. (Ohlan, 2017) a newly modified and developed model of Bayer and Hank has been used to analyze the cointegration relationship between tourism, growth and financial development. With a very broad data cover (1960-2014) and using variables such as GDP, tourism receipt and financial development, the results revealed that the variables are cointegrated. Most research to support the tourism-led growth or growth led tourism some research to present a different view. (Caglayan, Sak, & Karymshakov, 2012) have done a broad coverage on causality between tourism and growth with almost covering 135 countries. The results indicated that there exists a causality from tourism to GDP revenue. (Webster & Ivanov, 2014) conducted research on 131 countries for the period between (1995-2009) which concluded that there was no direct relation between tourism and economic growth however there were few destinations which were attractive to tourists.

The literature has extensively laid various topics of causality and cointegration between tourism and growth. However, the present study is aiming both short- and long-term relationship between tourism and growth.

Evidence from the UAE and GCCC

Tourism and growth relationship in UAE have been studied in the past by (Shadab, 2018) where the researcher analyzed just the causality between GDP and tourism receipts. However, the long run relationship between the variables has not studied. The present study will fill the gap in the literature where it will test both long- and short-term relationship.

(Nada Hammad & Papastathopoulos, 2017) have analyzed the impact of tourism with primary data rather than secondary with focusing mainly on social economical cultural and environmental in the UAE. The results suggested that there was a positive relationship between the variables and tourism. However, there was some negative impact of tourism according to the respondents such as an increase in cost or rise in prices of services and food and many other.

METHODOLOGY

Data description

The study is a time series analysis that covers annual data from 1990-2017 for the United Arab Emirates. There are various measures used by researchers to analyze the volume of tourism wither by the arrival of tourist or tourism receipts. The framework of this study is TR (tourism receipts) in US $, Tourism receipts, TA (tourism arrivals) as a number of people, K (capital formation) and GDP in current US $. The graphical presentation of the model is presented in Figer 1. The data were obtained from World Bank development indicators (World Bank, 2019), then excel and E-views software used.

The following model has been built: $= + 1 + 2 + 3 +$
Where:
    GDP = Gross Domestic Product.

TA= The number of tourism arrivals
TR= Tourism receipts
K=Capital formation
E=error

Unit root test

The empirical analysis states that one of the major components for having econometric analysis is to test the series or Unit root test that is to check if they are stationary or non-stationary. The series was at their natural logarithm and Augmented Dicky Fuller along with Phillips Perron test had been applied to test the unit root. The study will test both series at the level and also at first difference. The criteria for ideal test show that series must be non-stationary at the level and should be become stationary at first difference.

Graphical Model *(Figure 1)*
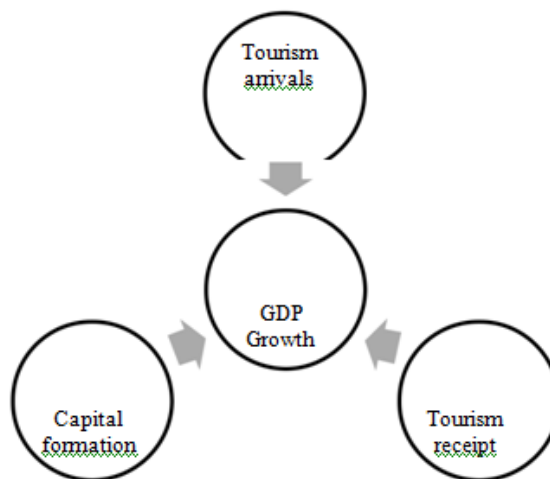
Stationary test

To run the Granger causality or Co-integration analysis, the series must be tested for unit root. Original data have usually the property of non-stationery, which is evident from empirical literature, however, to test the causality the series must be stationary. There are broadly two methods that are promptly employed by the researchers ADF (Augmented Dicky Fuller,1981) and Philips Perron,1988). The test was performed on both at the level and first difference. The test this covers is ADF (augmented dicky

$$\Delta = 0 + \quad + \quad -1 + 1\Delta$$
$$-1 + \quad 2\Delta \quad -2 + \cdots + \quad \Delta$$

    fuller):

Cointegration Analyses

cointegration test is applied to test the long-run relationship between series. Since all the series were integrated on same order in, the next to find the co-integration based on Trace and Maximum Eigen values. The two popular methods which are derived from empirical research are Philips Perron (1988) and another model is Johansen & Juselius (1990). For selecting the appropriate model and lags will give the best assumption about the results. The five models usually used for cointegration are a model are summarized below Johansen (1995,p 80-84): Model I – the data do not have deterministic trend and the equation have no intercept. Model II – the model does not have a deterministic trend, but the equation has intercept. Model III-The series has some linear trend however the equation has intercept only. Model IV- the equation has a linear trend. V the series has Quadratic trend and linear trend. For

the majority of the analyses, Model 2, 3, and 4 are used and due to its extreme nature 1 and 5are avoided due to extreme nature.

Granger Causality tests
Cointegration test generally can show the relationship between variables however the direction of the relationship could not be determined. The phenomena originally coined in

1969 by Clive W.J. Granger. Granger causality tests the relationship between the series or variables either Unidirectional or bidirectional. The causality test is also important since it also indicates the direction of the causality. The empirical study revealed that in the case of finding a cointegration there must be at least Uni-directional or bi-directional relationship.

IV.   Results and Discussion

Table 1.Unit root test

	Augmented Dicky Fuller Test		*Phillip-Perron Test*		
	At level T statistic Prob.*	At 1st Diff t-statistic Prob.*	At level t-statistic Prob.*	At 1st Diff t-statistic Prob.*	Integration-order I(0) at level I(1) at first difference
Fisher Chi-square	2.1389 0.9765	41.9840 0.0000	2.13421 0.9766	42.4735 0.0000	I(1)
Choi Z-stat	1.64144 0.9496	-4.97754 0.0000	1.61341 0.9467	-5.02724 0.0000	I(1)
Intermediate ADF test results D(UNTITLED)					
GDP	0.6344	0.0057	0.6315	0.0056	I(1)
Capital formation	0.6930	0.0093	0.7178	0.0079	I(1)
TR arrival	0.8486	0.0003	0.8326	0.0003	I(1)
Tr receipt	0.9199	0.0539	0.9116	0.0498	I(1)

Table 1. shows the results of Unit root tests for all the series both ADF and PP analyses. The results of the analyses show that the series are non-stationery at level and becomes stationery at first different, so we conclude that the series are integrated in same order.

Cointegration analysis
The literature review highlights that to find the long-run relationship between the series the cointegration analyses is the best method. With Var analyses and Akaike information criterion (AIC) optimum lag was chosen. The result of the analyses has been presented in **Table.2.** Model 2, 3 and 4 has been used for all the analyses and 1, 5 has been ignored due to its extreme nature. The results show a long-run relationship between Tourism arrival and

GDP, Tourism receipt, capital formation model 2[no deterministic trend, intercept]. However, no long-run relationship could have been found between GDP and capital formation, tourism receipt. And there was also no relationship between tourism receipt and capital formation. However, the results of the analyses scan not be validated unless we perform a Granger causality test. The result of the analyses is shown in **Table 3.**

Table 2.**Unrestricted Cointegration Rank Test**

	Eigen value	**trace Rank value**	**.05 Critical value**	**max Rank value**	**.05 Critical value**	**Prob.***	**Lag/model**
GDP-K	0.45077	13.6618	15.4947	12.5841	14.2646	0.0906	1/3

GDP-TA	0.5539	20.1235	20.2618	16.9505	15.8921	0.0340	1/2
GDP-TR	0.2879	8.7839	15.4947	7.1293	14.2646	0.3858	1/3
K-TA	0.520782	19.9327	15.4947	13.2408	14.2646	0.0100	1/2
K-TR	0.77630	30.6731	15.4947	26.9543	14.2646	0.4800	1/3
TR-TA	0.60478	25.2384	20.2618	19.4945	15.8921	0.0095	1/2

Granger Causality

Table 3. Granger causality test

Null hypothesis	F-statistic	Prob.
GDP does not Granger Cause K	3.24654	0.0875
K does not Granger Cause GDP	0.69040	0.4163
GDP does not Granger Cause TA	0.26193	0.6147
TA does not Granger Cause GDP	0.44162	0.5143
GDP does not Granger Cause TR	0.53308	0.4742
TR does not Granger Cause GDP	0.31011	0.5841
K does not Granger Cause TA	5.80930	0.0262
TA does not Granger Cause K	0.44722	0.5117
K does not Granger Cause TR	0.16970	0.6850
TR does not Granger Cause K	1.60891	0.2200
TR does not Granger Cause TA	3.76059	0.0566
TA does not Granger Cause TR	1.07365	0.4485

The results of the cointegration is validated if there at least Uni-directional relationship between the series. From the results its evident that Tourism arrival granger cause GDP, capital formation and Tourism receipt at 5% significance level. Therefore, we can reject the null hypothesis and accept the alternative. However, the rest of the series did not have any causality.

CONCLUSION

UAE has Vision 2020 that lay's the road map for the that targets that is in the way to be achieved. The aim is to attract around 20 million visitors every year. With the target in such a huge, the strategy of the government is directed towards achieving that. The study is motivated to find how much such a step is going to help the economy. The present study examined the relationship between tourism and GDP growth in UAE for the period between 1990-2017. The result of Unit root test revealed that the series is non-stationary at the level and becomes stationary at first difference. The cointegration analyses show that the long-run relationship between Tourism arrival and GDP, Tourism receipts, the Capital formation has been found. The results were validated through Granger causality, as Unit-directional relationship exists between tourist arrival and tourism receipts and capital formation. However, the result cannot be validated in the case of GDP and tourist arrival.

Implication

The number of tourist arrivals has increased in UAE in recent past that could be attributed to its modern infrastructure, security and political and economic stability. Since our research shows a relationship between tourist arrival and capital formation, there is a long-run relationship between tourism receipts, the government policy in the future can help to increase the tourist arrivals,

which in return help to increase the receipt. The tourist arrivals rate is going to increase in the near future as more and flexibility in visa regulation has been UAE. The Expo 2020 is going to increase the tourist arrivals, which is going to affect tourism receipts and capital formation. Tourism has received great importance in the recent past where the total medical market is about 100 billion dollars. UAE is expanding its wings to capture more medical tourist the relationship between Tourism receipt and tourist arrival could also be a great sign for the country to more focus on medical tourism and build better infrastructure.

REFERENCES

1. Antonakakis, N., Dragouni, M., Eeckels, B., & Filis, G. (2017). The Tourism and Economic Growth Enigma: Examining an Ambiguous Relationship through Multiple Prisms. *Journal of Travel Research*, 1-50.
2. Albaladejo, I.P., Gonzalez-Martinez, M.I., Martinez-Garcia, M.P. (2014), Quality and endogenous tourism: An empirical approach. Tourism Management, 41, 141-147
3. Balaguer, J., Cantavella-Jorda, M. (2002), Tourism as a long-run economic growth factor: The Spanish case. Applied Economics, 34(7), 877-884.
4. Brida, J. G., Carrera, E. J., & Risso, W. A. (2008). Tourism's Impact on Long-Run Mexican Economic Growth. *3*(21), 1-8.
5. Caglayan, E., Sak, N., & Karymshakov, K. (2012). RELATIONSHIP BETWEEN TOURISM AND ECONOMIC GROWTH: A PANEL GRANGER CAUSALITY APPROACH. *Asian Economic and Financial Review, 2*(5), 591-602.
6. Claveria*, O. (2016). Positioning Emerging Tourism Markets Using Tourism and Economic Indicators
   . *Journal of Hospitality and Tourism Management*, 1-22.
7. Dayananda.K.C, & D.S.Leelavathi, P. (2016). Tourism Development and Economic Growth in India. *IOSR Journal Of Humanities And Social Science (IOSR-JHSS), 21*(8), 43-49.
8. Du, D., Lew, A. A., & Ng, P. T. (2015). Tourism and Economic Growth . *Journal of Travel Research*, 1-39.
9. Du, D., Ng, P., & Lew, A. A. (2016). Tourism and Economic Growth . *Journal of Travel Research* , 1-29.
10. factbook, T. w. (2019, 4 3). *Central Intelligence Agency* . Retrieved from The world factbook: https://www.cia.gov/library/publications/the-world-factbook/geos/ae.html
11. government, T. o. (2018, July 15). *Travel and tourism*. Retrieved from The official portal of the UAE government: https://www.government.ae/en/information-and-services/visiting-and-exploring-the-uae/travel-and-tourism
12. Hammad, N., Ahmad, S. Z., & Papastathopoulos, A. (2017). Residents' perceptions of the impact of tourism in Abu Dhabi, United Arab Emirates. International Journal of Culture, Tourism and Hospitality Research, 11(4), 551-572.
13. Jayathilake, P. B. (2013). Tourism And Economic Growth In Sri Lanka: Evidence From Cointegration And Causality Analysis. *International* Journal *of Business, Economics and Law, 2*(2), 22-27.
14. Kaur, H., & Sarin, V. (2016). Causality Relationship Between Gdp, Fdi, Tourism: Empirical Evidence From India. *I J A B E R, 14*(5), 247-255.
15. Kum, H., Aslan, A., & Gungor, M. (2015). Tourism and Economic Growth: The Case of Next-11 Countries. *International Journal of Economics and Financial Issues, 4*, 1075-1081.
16. Kumar, R.R., Loganathan, N., Patel, A., Kumar, R.D. (2014), Nexus between tourism earnings and economic growth: A study of Malaysia.1-20. Quality and Quantity. DOI 10.1007/s11135-0140037-4.
17. LEaNa, H. H., CHoNgb, S. H., & Hooyc, C.-W. (2014). Tourism and Economic Growth: Comparing Malaysia and Singapore. *Int. Journal of Economics and Management , 8*(1), 139-157.
18. Lin, V. S., Yang, Y., & Li, G. (2018). Where can tourism-led growth and economy-driven tourism growth occur?1 . *Journal o travel research*, 1-13.
19. Nada Hammad, S. Z., & Papastathopoulos, A. (2017). Residents' perceptions of the impact of tourism in Abu Dhabi, United Arab Emirates. *International Journal of Culture, Tourism and Hospitality Research*.
20. Ohlan, R. (2017). The relationship between tourism, financial development and economic growth. Future *Business Journal, 3*(1), 9-22.
21. Oscar, C. (2017). Positioning Emerging Tourism Markets Using Tourism and

Economic Indicators. *Journal of Hospitality and Tourism Management*.

22. Roser, M. (2019, 4 5). *International arrivals by world region*. Retrieved from Our world in Data: https://ourworldindata.org/tourism

23. Selimi, P. D., Sadiku, D. S., & Sadiku, P. D. (2017). The Impact of Tourism on Economic Growth in the Western Balkan Countries: An Empirical Analysis. *International Journal of Business and* Economic *Sciences Applied Research, 10*(2), 19-25.

24. Shadab, S. (2018). Tourism and Economic Growth in the United Arab Emirates: A Granger Causality Approach. *IOSR Journal of Business and Management (IOSR-JBM), 20*(4), 1-06.

25. Tang, C. F., & Tan, E. C. (2015). Does tourism effectively stimulate Malaysia's economic growth? *Tourism Management, 46*, 158-163.

26. tourism, T. a. (2019, 4 5). *Travel and tourism*. Retrieved from Government.ae: https://www.government.ae/en/information-and-services/visiting-and-exploring-the-uae/travel-and-tourism

27. Tsung-pao, & eu, H.-c. (2018). Tourism and economic growth in Asia: A bootstrap multivariate panel Granger causality. *international journal of Tourism research, 21*, 87-96.

28. webster, c., & Ivanov, S. (2014). Transforming competitiveness into econmic benefit: Does tourism stimulate economic growth in more competive destinations? *Tourism management, 40*, 137-140.