Tourism Competitiveness and Tourism Sector Performance: Empirical Insights based on Income Groups and Regions According to Statistics and Facts for Analyses

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ABSTRACT

Adequate research attention has been given to the determinants of tourism competitiveness. However, there is dearth of empirical studies on the relationship between tourism competitiveness and tourism performance. This study evaluates the impact of Tourism Competitiveness on tourism performance. It captures heterogeneity of the countries and measures of tourism competitiveness and performance. Using three-stage least square for panel data, the findings reveal that Tourism Competitiveness is a major driver of the tourism performance across regions and income groups of countries. Moreover, the effect is heterogeneous. Infrastructure is a universal driver of tourism performance while policy conditions, enabling environment, and natural and cultural resources are also critical determinants of tourism performance. Hence, for countries around the world to motivate the performance of the tourism sector, stakeholders should give sufficient attention to the improvement of the TC and consider the multidimensional nature of the Tourism Competitiveness and tourism performance correlation in their policy frameworks. They provide policy recommendation suitable for each region and income groups of countries.

Keywords: Tourism competitiveness; Tourism arrivals; Tourism receipts; Tourism GDP; Tourism performance; Travel and Tourism competitiveness index

ÖZ

Turizm Rekabet Gücü'nü belirleyen (TR) kriterler daha önceki araştırmalarda yeterli derecede irdelenmiştir. Bununla birlikte, turizm rekabet gücü ile turizm performansı arasındaki ilişkiye dair ampirik çalışmalar yetersizdir. Bu çalışma, turizm rekabet gücünün turizm performansı üzerindeki etkisini değerlendirmektedir. Bu çalışma ülkelerin heterojen yapısını dikkate alan ve bu yapıyla birlikte turizm rekabet gücü ile performanslarını ölçen ölçütleri içermektedir.

Panel verileri için üç aşamalı en küçük kareyi kullanan bulgular, turizm rekabet gücünün ülkelerin bölgeleri ve gelir grupları arasında turizm performansının ana itici gücü olduğunu ortaya koymaktadır. Her şeye rağmen asıl etki heterojendir. Altyapı, turizm performansının evrensel bir itici gücü iken, politik koşullar elverişli ortam, doğal ve kültürel kaynaklar da turizm performansının kritik belirleyicileridir. Bu nedenle genel olarak ülkelerin turizm sektörünün performansını teşvik etmeleri için paydaşlar turizm rekabet gücünün iyileştirilmesine yeterli dikkati vermeli ve turizm rekabet gücü ile turizm performansı çok boyutlu yapısını politikalar çerçevesinde dikkate almalıdır. Bu araştırma sonucunda bölgeler ve ülkeler için gelir gruplarına göre uygun politikalar geliştirilmesi amacıyla öneriler yapılmıştır.

Anahtar Kelimeler: Turizmde rekabet edebilirlik; Turizm gelişleri, Turizm gelirleri; Turizm GSYİH, Turizm performansı; Seyahat ve Turizm rekabet gücü endeksi

To my precious wife and parents who supported me in each step of my life and have always encouraged me to do my best

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1

INTRODUCTION

Contribution of hospitality to economic growth and development has long been identified and affirmed. Generally, tourism and hospitality industry known as one of the key sectors of the world economy that contributes immensely to the creation of jobs, generation huge revenues, and the promotion of economic prosperity. It is also one of the fast- growing system. For instance, the world travel and tourism council (WTTC) reported that in 2018, the tourism sector accounted for 10.4 percent of the world gross domestic product (GDP), creation of 319 million jobs (10% of total employment) and accounted for about 6.5 percent of all global exports (Manzo, WTO 2019). Moreover, international tourist receipts have enhanced from 811 billion US Dollars in 2005 to 1.65 trillion US Dollars in 2018 while the number of international tourist arrivals increased from 823 billion in 2005 to 1.4 billion tourists in 2018 (World Tourism Organization __UNWTO, 2019). Hence, tourism industry plays a critical pattern in economic growth and development of economies across the world. The growing importance of the tourism industry arouses the interest of researchers and policymakers to evaluate the impact of the sector and understand the drivers of its performance over time and across countries and regions. This attracted a huge amount of interest in empirical investigation of the tourism growth hypothesis. Most of the studies supported hypothesis (Belloumi, 2010; Kibara, et al 2012; Tugcu, 2014; Roudi, Arasli, and Akadiri, 2019). Furthermore, the importance of tourism in propelling economic improvement makes it imminent to understand the drivers of performance

of the hospitality sector. In light of this, few studies evaluated the main components of tourism demand and supply in many countries and regions (see Lee et al, 1996; Uysal, 1998; Formica and Uysal, 2006; Song, et al 2010; Martins, Gan, and Ferreira-Lopes, 2017; Tardieu and Tuffery, 2019; Petrovic and Milićević, 2019; Pompili, Pisati and Lorenzini, 2019; Gunter, Shafiullah, Okafor and Khalid, 2019;Dogru, Bulut and Sirakaya-Turk, 2019; Önder and Smeral, 2019; Rossello´-Nadal and HE, 2020; Takahashi, 2020). However, there is a dearth of studies linking tourism competitiveness (TC) to tourism performance. Most of the related studies are narrow in terms of their spatial coverage and the variables considered. They considered specific countries, small groups of countries, or a particular region, ignoring heterogeneity of tourism destination and the global effects (Croes and Kubichova, 2013; Hanafiah, Hemdi and Ahmad, 2016; Martins, et al, 2017). In terms of the determinants, most of the early studies focused on causal correlations of tourism demand and few macroeconomic fundamentals for individual country or regions (Leeet al, 1996; Witt and Fei, 2016). There is no broad-based study on the constraints of tourism performance. Thus, previous studies lack universality and wider applicability of their findings for policymaking becomes difficult if not impossible. Such an attempt could lead to bias conclusions and wrong choice of policy measures to develop the tourism sector across the world. Webster and Ivanov (2013), Marti and Puertas (2016), and Hanafiah and Zulkifly (2019) are few studies which evaluated the relationship between tourism competitiveness and tourism performance. However, the study used cross-sectional data for the years 2011, 2015, and 2017 respectively. Using cross-sectional data limits the sample size precludes the dynamic relationship between the variables over time and make the study outdated. Also, the studies do not capture regional and income heterogeneity of the countries considered. This limits the

applicability of the findings of the studies. Consequently, Hanafiah and Zulkifly (2019) themselves, recognized the limitation of their study and suggested that future studies could segment the sample based on the clusters of countries related by destination-specific characteristics such as regions and income groups considered in this study to capture the heterogeneity of the drivers of tourism demand. Even, the travel and TC report 2019 only examine the correlation between the overall Travel and Tourism Competitiveness Index (TTCI) and tourist international arrivals. Currently, no study considers the nexus between the competitiveness and performance of the tourism sector on a global perspective using panel data.

This leaves certain research questions that are still begging for pragmatic answers which include:

1: Does the Tourism Competitiveness fundamentally matters for the performance of tourism sector

2: Which component (sub-index or pillar) of the tourism competitiveness matters?

3: For which aspect of tourism performance (arrivals or GDP) does the competitiveness matter most?

4: Does the tourism competitiveness matter more than the macroeconomic fundamentals in driving the tourism sector?

5: Does the effect of tourism competitiveness homogenous across regions and income groups of countries around the world?

All these questions are still begging for pragmatic answers. The major contribution of current study is to answer the aforementioned burning questions. Providing empirical answers to these questions will not only bridge the research gap but also offer remarkable policy options for stakeholders aiming at the development of the tourism

industry across the countries and regions in the world. Therefore, this study evaluates the impact of travel and tourism competitiveness on the performance of the tourism industry across the globe. It captures the regional and income heterogeneity of the countries and measures of both tourism competitiveness and performance. The regional and global perspectives of this study enable a comprehensive understanding of the differences in the performance of the tourism industry across countries and regions. It enables researchers, policymakers, and other stakeholders to identify the kind of policies that are crucial for the improvement of tourism industry in both region and globally. The remaining part of the study is divided into the following sections. Chapter two contains literature review. Chapter three presents a discussion on data measurement and methodology. Chapter four contains the presentation and discussion of findings. The conclusion, policy implications, and recommendations are discussed in chapter five.

Chapter 2

LITERATURE REVIEW

2.1 The Tourism Trends

2.1.1 International Tourist Arrivals

According to the united world travel organization, the number of international tourist arrivals increased by 4% in the first half of 2019 reaching to 672 million. Relatively, the Middle East witnessed 8% of growth, in terms of international arrivals many regions such as Asia and Pacific recorded 6% of growth within 2019 between starting of the January to June. In relative terms, the Europe growth rate were 4% which for African continent it was 3% of growth recorded and also 2% of moderate growth for America.

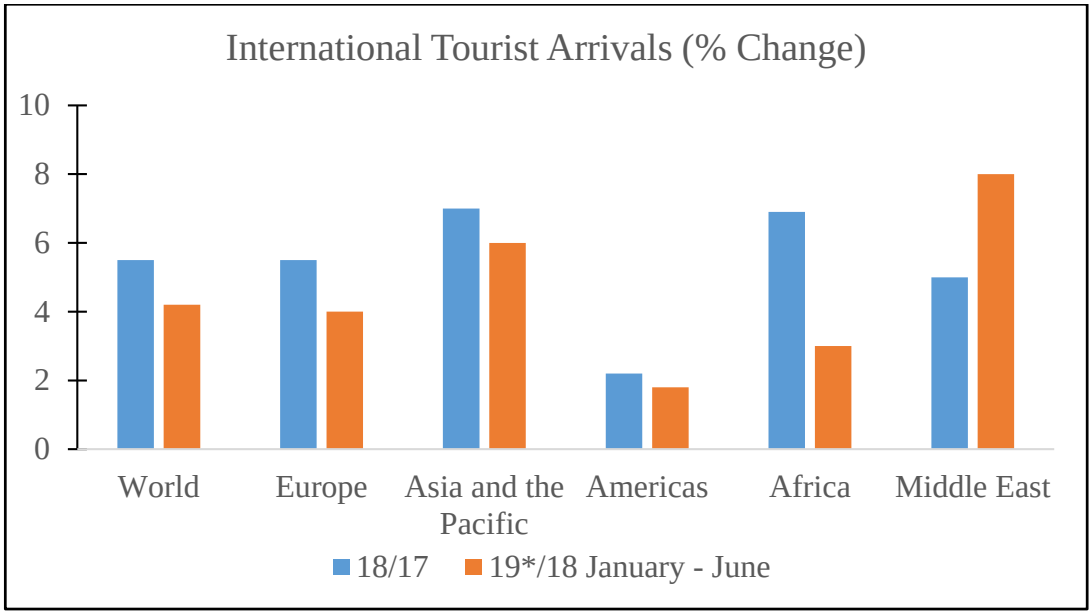

Figure 1: International Tourist Arrivals. (World Tourism Organization, 2019)

As shown in figure 1, according to the United Nations world travel organization, the growth of international tourist arrivals recorded its historical pattern for the full year of 2019, with positive growth rate of 3 to 4 percent of growth rate. According to the statistics the major drivers of this growth is known in terms of strong and stable economy conditions, favorable air travel infrastructures, increased air connectivity, and enhanced visa facilitation. Comparing the regions and countries in terms of their growth the Middle East witnessed the highest growth among all other advanced economy countries. In means, regarding the major drivers of growth such as political stability, economic affordable conditions could be the main reason of prosperity. Regarding America with the lowest growth is highly correlates with political and economy conditions which was resulted in the percentage of international growth indeed.

2.1.2 International Tourist Receipts

According to the statistics and analyses which is represented in figure 2, the world top international tourism receipts which is published by Statista Research Department in 2019.

According to the figure 3 the leading countries in terms of tourism receipts income are United States with the highest records of generating 214.1 billion U.S dollars in international tourism receipts. Following with the great margin of 79.7 billion generated by Spain which holds the second place. Additionally, following the France, Thailand and United Kingdom with rates of 63.8 billion for France, 60.5 for Thailand and 50.4 for United Kingdom respectively. Comparing the level of prosperity of the regions it is important to note that according to the main and important drivers of tourism expenditures, the infrastructures, technological advancements, visa facilitations are found to be the major drivers of competitiveness related to the region

by all means the main other determinant should be mentioned is the level of safety of the region that either affects positive or negative in term of foreign visitors.

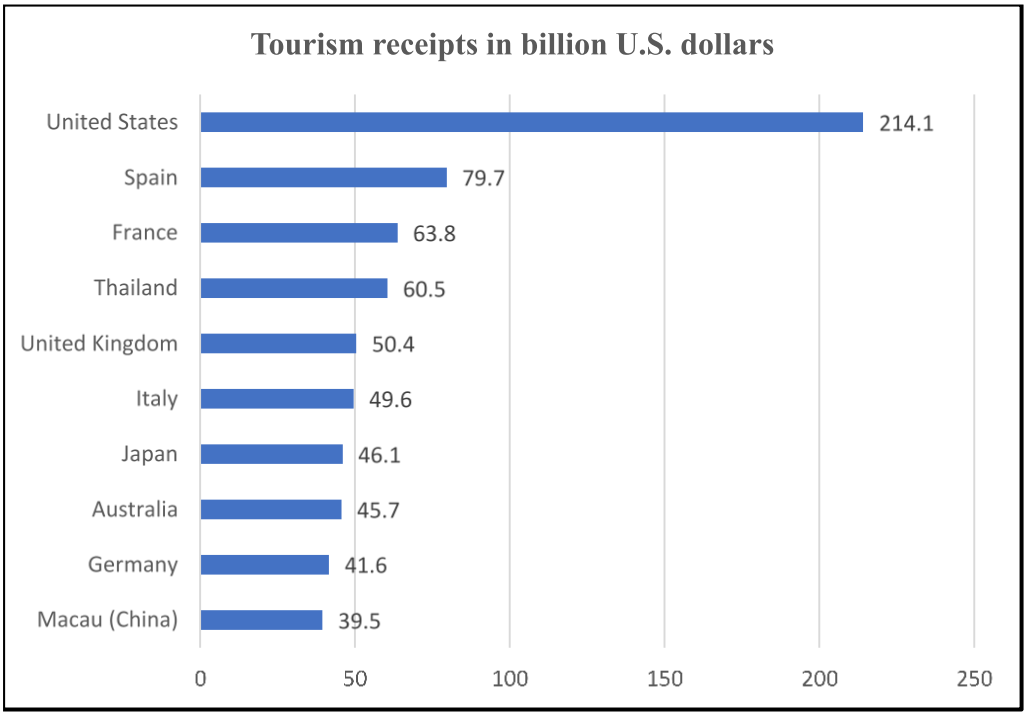

Figure 2: Illustration of Leading Countries in Terms of Receipts. (UNWTO, 2019)

2.1.3 Trends of International receipts and arrivals

The rate of growth considering the receipts which generated in terms of local currency of the destination by taking under consideration of exchange and inflation rate is approximately matches the growth of arrivals. Emphasizing the relationship between two important variables in terms of tourism trends. In fact, it shows that minimum rate of difference which accounts for approximately 1 percent (UNWTO, 2019). International tourist arrivals considering the European countries witnessed a serious growing rate in long term time period. It should be mentioned that as a relief of losses occurred during from 2008 till 2009 and also which affected the tourism trends significantly, many of countries such as Russia and China as outbound markets showed

a significant growth considering tourism trends. In the European countries the growth rate of tourism receipts is still one step behind compared to the growth of international tourist arrivals. In fact, this is a general period of recovery when tourist arrivals show more growth than receipts. Comparatively the reason should be accounted for weak economic conditions and higher exchange rates. In fact, considering monetary and economic conditions politics, law stability and durability of prices should be involved in the process of receipts advancements. For example, between the years of 1995 to 2000 when European currency were relatively weaker comparing to other currencies that the growth rate of tourist receipts were stronger than arrivals.

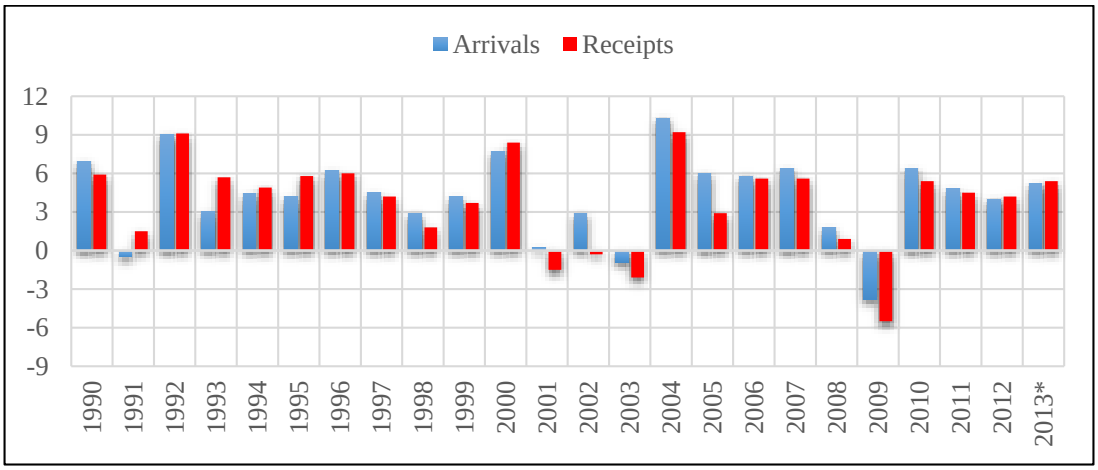

Figure 3: The Trend of International Tourist Arrivals with International Tourist Receipts, (UNWTO, 2013)

As illustrated in figure, we conclude that, every situation regarding economic, political and economic conditions will affect either positively or negatively the performance of the destination as illustrated between the years of 2008 and 2009 because of pandemic situation and also terrorist attack on world trade center we see the consequence of tourism performance in a certain destination, but in fact as a fast growing industry the rebuild and process of development required to be empowered in order to keep the sustainability of that destination.

2.1.4 International Tourism GDP

According to the statista research department, the direct contribution of travel and tourism industry, accounted for 3.3 percent of total global Gross Domestic Product in 2019. Showing a small rise compared to previous year. In fact, comparatively the total contribution of travel and tourism industry in 2019 accounted for 10.4 percent of the total GDP of the world. GDP is the total value of all goods and services produced in a country in a year. Which is considered as a major driver of economic strength of a country and a positive change is an indicator of economic growth. The direct contribution of travel and tourism to GDP reflects the internal spending on travel and tourism (total spending within a particular country on travel and tourism by residents and non-residents for business and leisure purposes), as well as government individual spending and spending by government on travel and tourism services directly linked to visitors, such as cultural museums or recreational national parks. The total contribution of travel and tourism to GDP reflects the GDP generated directly by the travel and tourism sector plus its indirect and induced impacts.

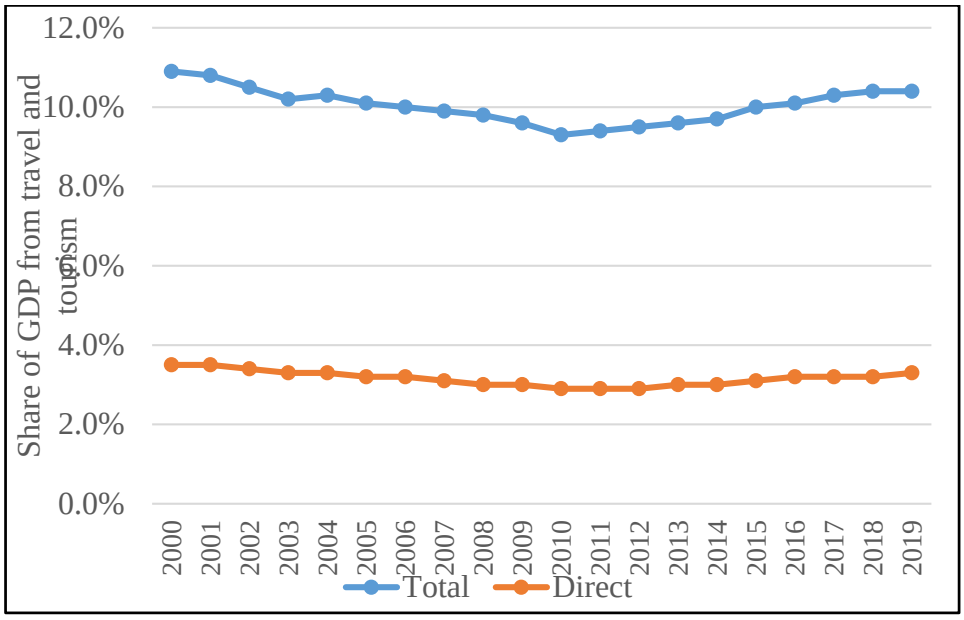

Figure 4: Share of GDP Worldwide between 2000 to 2018. (Statista Research Department, 2021)

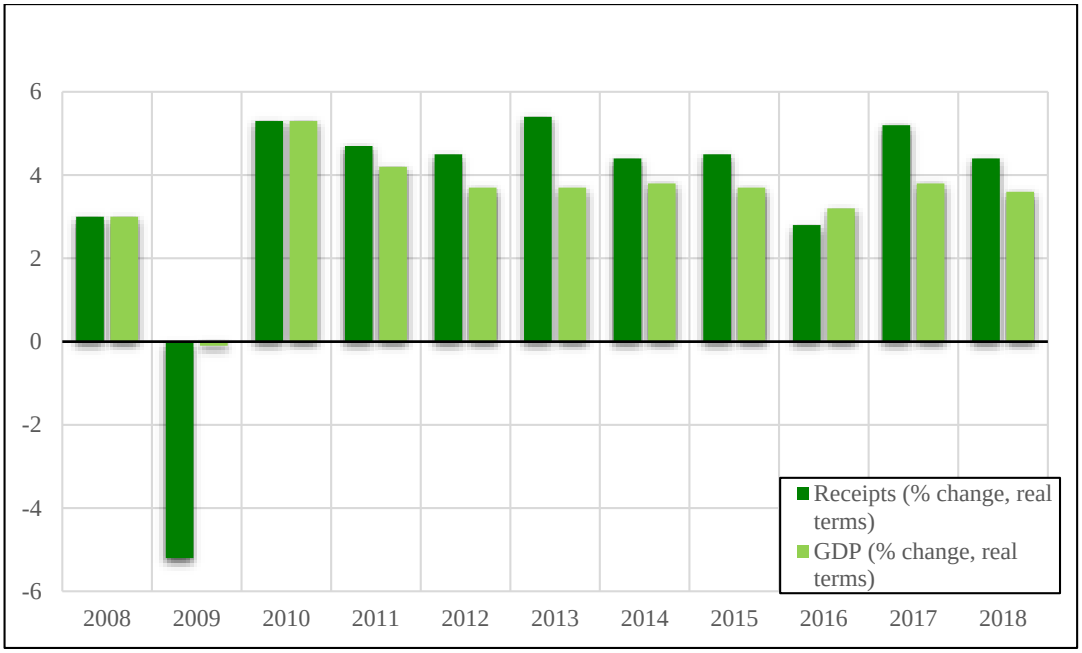

Figure 5: Illustration of GDP Growth and International Tourism Receipts (2008-2018). (WTO, 2019)

Considering previous figure and illustrations, figure 5 represents the GDP growth after the economic recession in 2009, in fact the GDP growth after 2009 and the revenues from tourist spending grew faster than the world economy, compared to the 2013 there is decrease in amount of tourism receipts that could be the inflation rate, exchange rate fluctuations. We can see the same change from 2017 to 2018 which the economic stability between the years of 2013 and 2017 remain approximately the same but a down turn happens regarding political, economic, and exchange rate inflation indeed, but remain positive and higher than world economy performance.

2.2 International Tourism by Continents

The tourism in the United States is mostly based on urban tourism since late 19th and 20th centuries, from the 1860's the tourism and hospitality industry was developed mostly based on Cultural activity in the form of an industry (Statista Research Department 2020). According to the travel and tourism organization (2019), cities of New York, Chicago, Philadelphia, San Francisco, and Boston acted as a major city of tourist attraction since 1890. In fact, from 1915 city tours had made an important shift

regarding culture, that American residents have organized, which made significant movements in terms of urbanization. The travel democratization had taken place in the early 20th century, when automobile invention had changed the feature of travel. At the meantime, the revolution of air traveling during 1945-1969 made a significant contribution in the tourism industry of United States. Tourism related purchases by visitors and tourists resulted in more than 10 billion $ in 2013. The tourism and travel industry were among the industries that affected negatively by the September 11, 2001 terrorist attack. Regarding tourism industry, the United States is among 3rd large employers in more than 25 states, which employed 7 million people only in 2004 in order to lead 1.18 billion trips tourists and visitors have taken in United States. Since 2007, there are 2500 national historic landmarks registers which introduced by the government of the United States. As for 2018, the New York City is recognized as the most visited touristic destination, following by Los Angeles, Orlando, and Chicago. In fact, tourists and visitors tend to spend more money in United States compared to other countries, hence possessing the third place after Spain and France. Europe centered the history and culture development in its tourism history, the Europe includes 51 different countries which located fully or partly in the continent, 26 countries recognized as Schengen Area among all these different regions, despite of regions and locations there is a plenty of touristic attractions for different cultured people. For example, tourists can enjoy the sun by the sea of Mediterranean beaches or enjoy climbing the snowy mountains namely Alp. Experiencing outstanding museums located in Paris or visiting and recording memories of taking selfies in Big Ben of London. The Europe is surrounded by historical and cultural places such as Eiffel Tower of Paris, the Colosseum of Rome in Italy, La Sagrada Familia in Spain, Hagia Sophia in Istanbul. For those who are looking for natural beauties of the continent, different natural

landscapes with unique nature can host visitors and tourists, which are recognized in terms of impressive wonders of European nature such as the Moher Cliffs located in Ireland, the Matterhorn of Switzerland, the Fjords of Norway, and the Lake District of North England. Tourism in Europe varies depend on desires of travelers, despite of visa requirements for the ones who willing to visit specially the Schengen member countries, it is crucially differs from place to place and even whether based traveling either, one can consider travelling in the middle of the winter to experience the beauty of the winter or the other one can visit different cultural events take place in specific time of the year. Tourism in Australia encompasses the different types of tourism such as domestic tourism which refers to inbound traveling inside the country, which the purpose is the friend or relative visiting, business travels and holiday. Australia have shown a significant growth in both domestic and international tourism which the both are the main determinants of the country's economy. The main reason which made the country more attractive in terms of domestic and international tourism is adventure tourism including natural marvels, different and unique plants and animals. The region is also known for its deserts, rainforests, rugged snow-capped range and many other adventures. There is also another unique tour in Australia which contributes to the economy of the region is called Aboriginal tourism which is the type of holiday tourism which assists 4 billion$ to the economy of the Australia. It is also important to note about the presence of different beaches in Australia which welcome people from around the world specially the specification of beaches in Australia is mentioned because they are accessible all year around. Tourism in Asia in famous for its varying types that include educational and cultural tourism, people who desire to experience the ancient mausoleums, minarets, bazaars, narrow streets, ancient quarters specially in central Asia. Extreme or mountain tourism in Asia is also a unique attraction of the

region which hosts many of people around the globe. Activities such as camel riding, horseback riding, night stays in tents, paragliders are the main adrenalin experience of the region. The most and interesting tourism types that had been recorded in the history of Asia is the Gastronomy and Wine tourism, for the ones who willing to experience new taste of foods with different types. Also, it creates an opportunity to learn the progress of food with different dishes. Other and interesting tourism types can be regarded as even tourism, ecological tourism with different types of national parks. Religious tourism is also recognized as famous types for those who willing to see and experience the different culture with different beliefs. There are also other Asian countries with different tourism types welcomes people from world, for example Thailand is known for its sun, sea and sex destination for many years that made people enjoy their traveling through the time they stay in Thailand. The most famous tourism type in Thailand is caving which takes place in Pang Mapha district. Additionally, people interested in Trekking that takes place in Doi Chiangdo. Elephant Trekking is also famous tourist attraction in Thailand. Other activities such as Waterfall abseiling, Whitewater rafting, mountain biking determined as other adventure tourism type in Thailand. As for Africa, the tourism is the most important contributor of the economy of African countries. Many of African countries which benefit from tourism are namely, Algeria Uganda, Kenya, and South Africa. The tourism specification of Africa benefits in wide range of points of interests, landscapes, with rich cultural heritages, and also Eco tourism is also present in some African countries such as Kenya, South Africa, and Namibia. The tourism can be divided in to three categories such as countries with improved tourism industry, developing industry and countries willing to develop appropriate tourism industry. For example, countries such as Egypt, Morocco, and Tunisia have developed a successful tourism industry. Countries such

as Zimbabwe, Swaziland are recognized in terms of regions which have stable income from tourism, and also countries such as Algeria, Burundi have no suitable situation or economic benefit from tourism. Tourism in African countries is mostly based on rich history of ancient, pyramids and red sea beaches. Wild Safari is also known as famous tourist attraction of Africa.

2.2.1 Tourism in United States

The hospitality industry comprehensively extended after Second World War which made the industry to become the one of the important contributors of country economic situation. From the years of 2010 to 2012 economies related to tourism and hospitality have created about 100 million jobs, which according to the travel and tourism council will reach more that 120 million by 2023.between the years of 1960 and 2012, the number of tourists have risen from 25 million to 1 billion (Travel and Tourism, Economic Impact 2013). Figure 2.6 illustrates that the number of tourist arrivals will increase to 1.5 billion by 2020. According to world travel and tourism council, the permanent tourism growth will make the hospitality industry as one of the key drivers of destination sustainability. Tourist attraction activities and planning are empowered internationally. From 1970 the Europe and United States had been the world's most attractive tourist destinations, with combination of two continent they accounted for more that 80 percent of global market.

A number of 68 million foreign visitors traveled to American countries in 2012 which made the United States as second famous destination for travelers, following France. The hospitality replication group, the U.S. Travel association assumes that the average abroad traveler spends approximately $4,400 domestically on activities such as shopping, dining. Foreign travelers stay on average more than 15 days, and their expenditures outpoint domestic visitors spending.

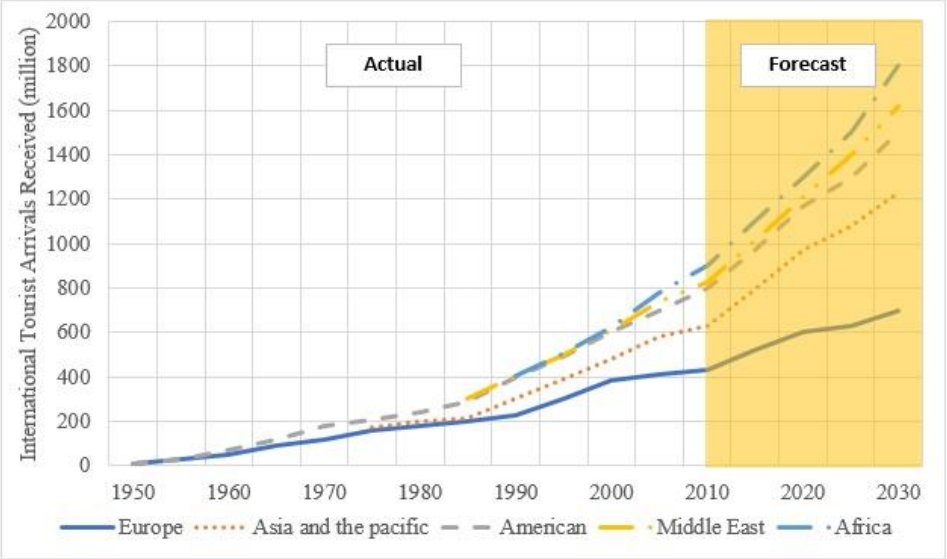

Figure 6: International Tourist Arrivals between 1950-2030. (World Bank Index, 2020)

According to World Bank data, the United States received 6% of global tourism arrivals in 2011 and accounted for nearly 15% of global spending on travel and tourism, down from 7.3% and 21%, respectively in 2000. According to the figure the forecast and estimations on tourist arrivals to Africa, Middle East, America, Asia, Pacific and Europe estimated. The illustration shows that between the years of 2020 to 2030 the number of tourist arrivals according to the continents will be risen to 1.800 million for African countries, 1.450 million for American countries, approximately 1.200 million for Asia and Pacific and 600 million for European and approximately 1700 for Middle East, it shows that the African and Middle East countries have the most capacities to grow in order to achieve a sustainable tourism in considering the tourism sector performance and competitiveness priorities such as, business infrastructures, health and hygiene, safety and other key factors, it means in correlation with tourism performance, the stability of political and economic factors are the main determinants of the destinations to become sustainable in international and global market.

2.2.2 Volume of Travel to United States

Considering the domestic travel within the borders of the American countries, the number of domestic travelers during 2019 increased by 1.8 % which equals to a number of approximately 2.4 person-trip (WTO 2019). The word person-trip is used for a person decides to spend one or more nights away from home with a 50 mile away destination. However, the number of relaxing and leisure travel increased by 80% for all American citizens. Moreover, the business travel regarding the domestic travelers in terms of person-trip increased by more than 1% from 2018 to more than 460 million. Considering international travelers from foreign countries decreased about 0.8% accounted for less than 80 million (United States Travel and Tourism Overview 2019).

2.2.3 Direct Impact of Travel to Economy

Considering the domestic and international travelers of U.S, the tourist spending has increased by more than 1 trillion dollars. This amount of spending supported approximately more than 9 million jobs which accounted for more than 270 billion of income. In fact, the domestic travelers spent more than 900 billion dollar that accounts for more than 4 percent increase from 2018, considering the international travelers, the total spending decreased by less than 2 percent which accounted for 155 billion Dollar compared to 2018.

2.2.4 Employment Support of Traveling

Considering the impacts of traveling on U.S employment, the amount of 7% of total resulted in private industry employment. Travelling generated 9 million jobs in the U.S in 2019(WTO, 2019). Comparing to the 2018 an increase occurred by more than 1%. In consideration of hospitality industry as labor intensive industry, the power of job creation in extended volume in tourism is greater than other industries. Every 1 million dollars of sale is equal to generation of 8 jobs on average. Comparing to other

industries the same amount of 1 million dollars sale generates only 5 jobs. Considering, the domestic and international travelers spending accounted for 790 billion Dollar in 2019 only for leisure purpose more than 4% compared to the previous year (Work and travel Group 2019). Regarding business trips, the spending increased by more than 2% to more than 330 billion Dollar in 2019 which more than 2.5% increase in spending comparing to previous year. In consideration of top categories of spending which is recognized as foods, accommodation for both domestic and international travelers, travelers spent more than 250 billion Dollar in 2019 only in restaurants, lodging, and drinking places, which accounts for more than 20% of all spending of travelers of U.S.

2.2.5 Total Economic Impact of Travel

Tourists, travelers, visitors, produce multidimensional impact on U.S economy system. Considering the purchase of products and services by travelers, the expenses which is used for producing these products and services are also provided and purchased by travel and tourism business operators and mediators which is known as indirect travel outputs. However, the total amount of spending in local places via the employees of travel and business companies and suppliers, the total correlated outcome was more than 1.5 trillion $(United States Travel Association (2020). In relation to job creations in American countries by travelling, the number of 15.8 million in 2019 WTO (2019). This implies that, considering other industries which is called non-farm industries the ratio of one out of eight industries directly and indirectly relies on tourism and travel industry. In fact, the total travel and tourism related job accounts for 9 million related to traveling. Including jobs which produce different products and sells directly to tourists. Moreover, approximately 7 million indirect related job to hospitality industry which refers to jobs where workers produce related and required products such as raw materials in order to produce final products and

services. Direct impact of travel to tourism comprises spending on travel goods and services which is the creation of travel industry employment. Indirect impact of traveling on economy includes, the purchase of inputs and raw materials and suppliers to meet the requirements of travelers which indirectly creates employment for other industries.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Person trips (million)	2023.7	2061.0	2097.3	2131.3	2184.6	2256.4	2283.0	2318.0	2357.7	2396.2
Domestic trips	1963.7	1997.5	2030.3	2059.6	2109.3	2178.7	2206.6	2240.8	2278.0	2317.0
Intl arrivals	60	63.5	67	71.6	75.4	77.8	76.4	77.2	79.7	79.2
Expenditures ($ billions)	751.9	815.9	855.4	891.4	942.2	974.9	994.1	1037.7	1088.3	1126.6
Domestic	645.1	697.3	728.7	751.9	792.4	815.0	838.5	881.9	930.8	972.0
International	106.9	118.6	126.7	139.5	149.8	159.9	155.6	155.8	157.5	154.6
Total employment	7346.7	7480.2	7760.7	7958.9	8201.4	8426.4	8629.8	8812.2	8927.0	9033.2
Domestic	6252.9	6381.0	6636.6	6757.5	6960.4	7154.6	7422.0	7608.2	7723.3	7856.9
International	1093.9	1099.2	1124.1	1201.4	1241.1	1271.8	1207.8	1204.0	1206.7	1176.3
Total payroll ($billion)	188.4	196.2	205.9	211.1	226.5	238.6	248.9	258.7	267.9	277.4
Domestic	163.4	170.4	178.5	181.3	194.7	205.3	216.6	225.8	234.2	243.8
International	25.1	25.8	27.4	29.8	31.8	33.3	32.4	32.8	33.6	33.6
Tax revenues ($ billions)	118.2	124.3	128.8	134.4	143.6	151.5	157.8	164.4	171.7	179.7
Domestic	101.3	106.2	109.7	113.3	120.9	127.7	134.7	140.8	147.2	154.8
International	16.9	18.1	19.1	21.0	22.8	23.8	23.1	23.5	24.5	24.9

Figure 7: The Overview of Travel and Tourism in the U.S. (UNWTO, 2019)

The figure illustrates about the travel revenue between the years of 2010 to 2019, considering person-trips including domestic and international arrivals, the total number of revenues in comparison to 2018 increase totally about 40 million in 2019. At the same vein, total expenditures of international and domestic expenditure,

increased from 1.088 billion in 2018 to 1.126 billion in 2019. Job creations and employment for both domestic and international applicants increased between the years of 2018 to 2019 from 8,927 to 9.033 people in direct and indirect employment. However, the tax and payroll revenues from 2010 considering both domestic and international job creation of related direct and indirect employment we witness an increase respectively from 188.4 billion$ to 277.4 billion$ following tax revenues from 118.2 billion$ to 179.7 billion$.

2.3 Tourism in Europe Continent

2.3.1 The Europe Share of Tourism in Global Tourism

Noticeable growth of tourism globally considered in 2018, making tourism as improving industry for 9th year in a raw. According to the world travel organization, the number of international arrivals increase by more than 1 billion, which witnessed an increase by 5 percent. Comparing the between the years of 2016 and 2017 the numbers slowed down which was approximately 8 percent decrease in international arrivals (UNWTO, 2018). The statistics and indicators showed continuous growth in 2019 with minimum rate of slower growth of 3% for the first 6 month of the year. Tourism receipts also expressed noticeable growth about 4 percent in 2018 comparing to 2017 to more than 1.5 trillion$. The growth of tourism receipts continued which affected GDP globally, as performed in a prosper growth except for the years of 2009 and 2016. Considering the contribution of tourism to economy, now the hospitality industry accounts for more than 7 percent of international exports and more than 25 percent of global service exports which made the industry to become the third large industry in exporting and service provider (UNWTO, 2019).

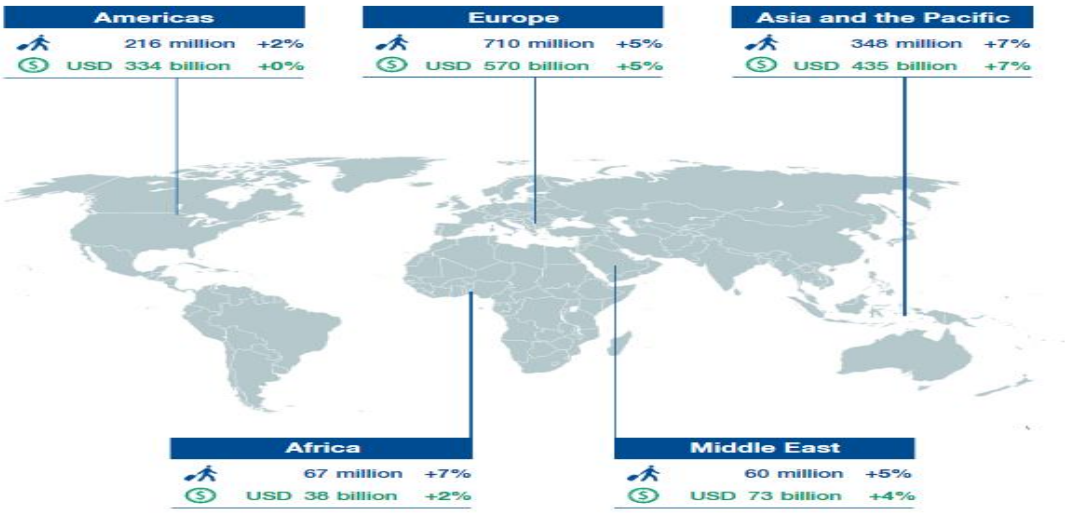

Figure 8: World Tourist Arrivals and Receipts. (UNWTO, 2019)

The region of Asia and Pacific performed as strongest during the year of 2018, with a record of more than 7 percent in arrivals and receipts. Europe performed as the second strong destination. The main objective of the figure is to show the purpose of travel in leisure time spending comparing different destinations according to their performance performing 56% of all international arrivals with a growth of from 50% to 56% from the year of 2000. Relative and friend visiting, health and religion purpose travel accounted for 27%, business travel meeting and professional travel accounted for 13%. According to the UNWTO (2019), more than 50 % of all trip have been made by air which includes (58%), which shows an approximate 12% increase comparing to the 2000. However, for traveling with car, and other related land transportation that fell by 10% over the same time period to 37 percent. According to the UNWTO (2019) the main reason observed in terms of lack of sustainability, and environmental impacts. The world top 10 countries recorded for 40 % international arrivals and 50% percent of receipts. Expenditures of arrivals differs according to the destination, that illustrates that American countries accounts for the best performer with 214 billion $, followed by Spain with 74 billion $, France with 67 billion $.

Table 1: The World Top 10 Tourism Destination. (UNWTO, 2019)

Country	**International arrivals (million)**	**% Change (2017-2018)**
France	89	3
Spain	83	1
USA	80	4
China	63	4
Italy	62	7
Turkey	46	22
Mexico	41	5
Germany	39	4
Thailand	38	8
UK	36	-4

The table illustrates that, despite of being the best contributor tourism as for U.S, the Europe is also performs as the abroad trips for 48 percent in 2018. However, according to the table, France with 89 Million arrivals, accounts for 3 percent increase compared to the 2017 which holds the first place. Spain occupying second place with 83 million with 1 percent of increased number of international arrivals. Between the years of 2017 to 2018 the United States accounts for 80 Million international tourist arrivals which shows the 4 percent of increased compared to the 2017, following China, Italy shows 4 and 7 percent increase respectively. Only the United Kingdom shows decrease comparing with other destinations, according to the UNWTO (2018), the concerns of decreased number of arrivals are exchange rates, price elasticities compared to the other destinations, economic reasons, and environmental impacts. According to the table Thailand as Asia destination performed better by 8 percent of increased number of international arrivals compared to 2017.

2.3.2 Mediterranean and Southern Destinations

In Southern and Mediterranean region of Europe, Spain showed the lowest growth rate of 1 %. Considering the amount of 1% calls for about 1 million international travelers in 2018. Comparing the destinations, we see the minimum number of arrivals together with receipts are Malta, Cyprus, and Slovenia, in relation of tourism advancement we don't mean they did not expressed growth, but in fact the ratio of growth comparing to other destinations is shown in figure between 2 to 5 percent respectively. But in consideration of the comparison of arrivals with receipts we observe the number of tourist arrivals are greater than the receipts, that means the economy stability, political situation and exchange rate with environmental impact are considered as main determinants of tourist attractions.

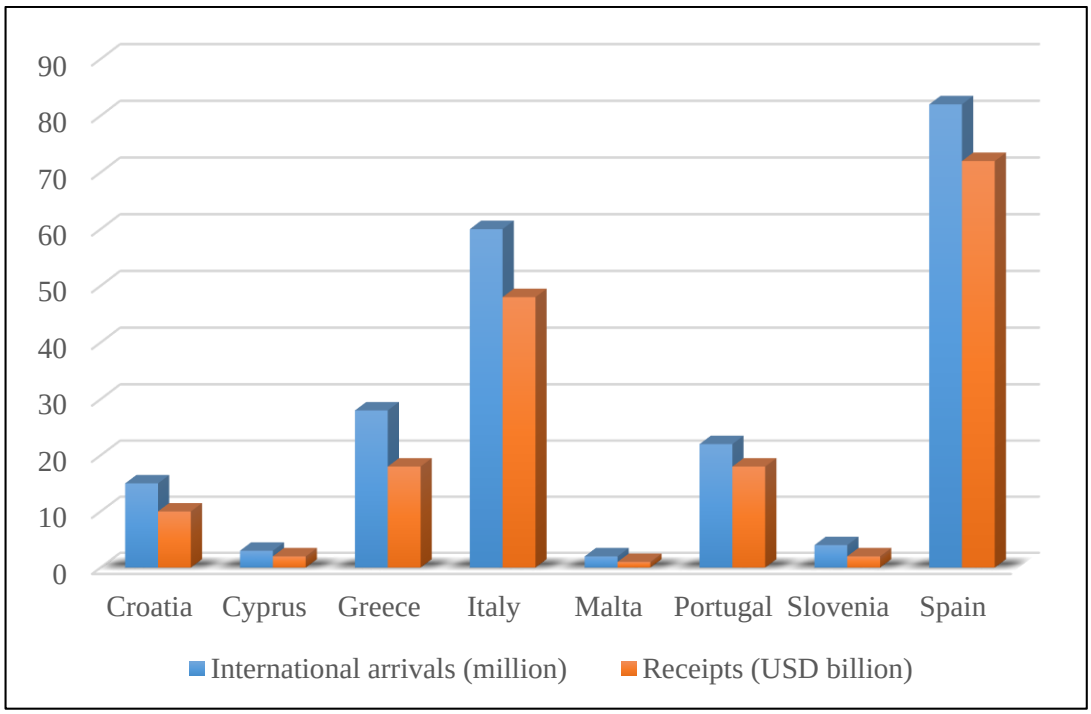

Figure 9: Comparing Mediterranean and Southern Europe Destinations. (WDI. 2018)

2.3.3 Central and Eastern Europe

In central and eastern regions of Europe Estonia shows the negative growth by -0.3% and Latvia with negative growth of -0.2%. However, the Lithuania shows the highest growth among other regions.

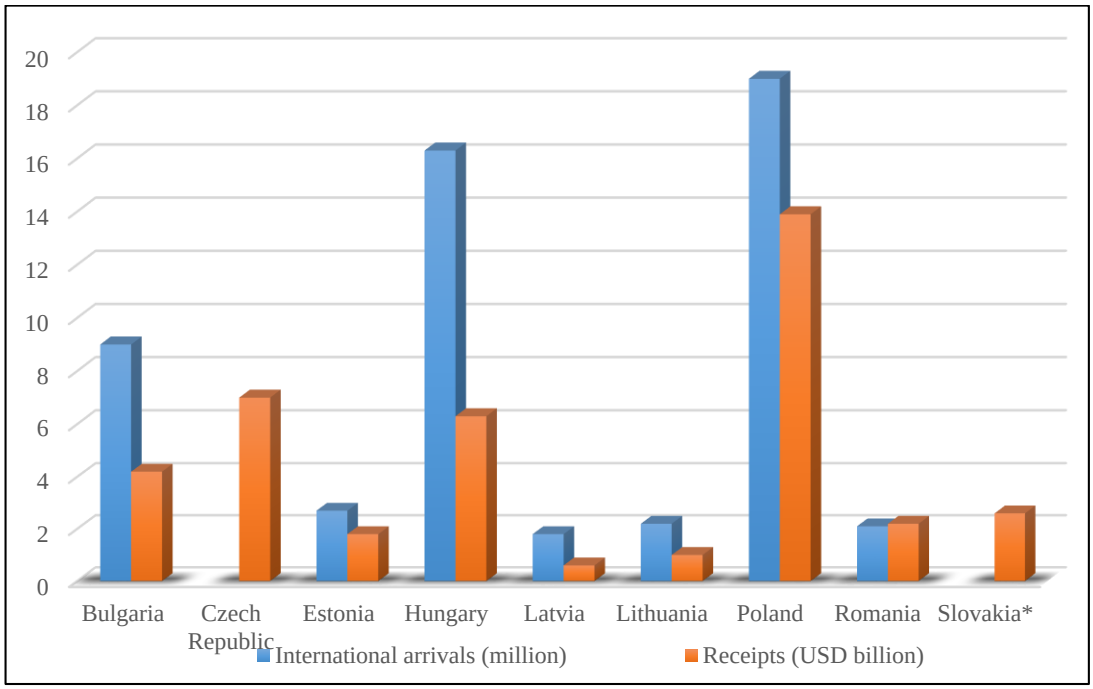

Figure 10: Comparison of Central and Eastern Europe. (WDI, 2018)

2.3.4 Western Europe

Western European countries, including Belgium witnessed a good result of an increase about 9.5 percent in 2018. Despite from Luxemburg which showed approximately 2.7 percent fall comparing to other destinations, other countries showed increase between 3 to 6 percent.

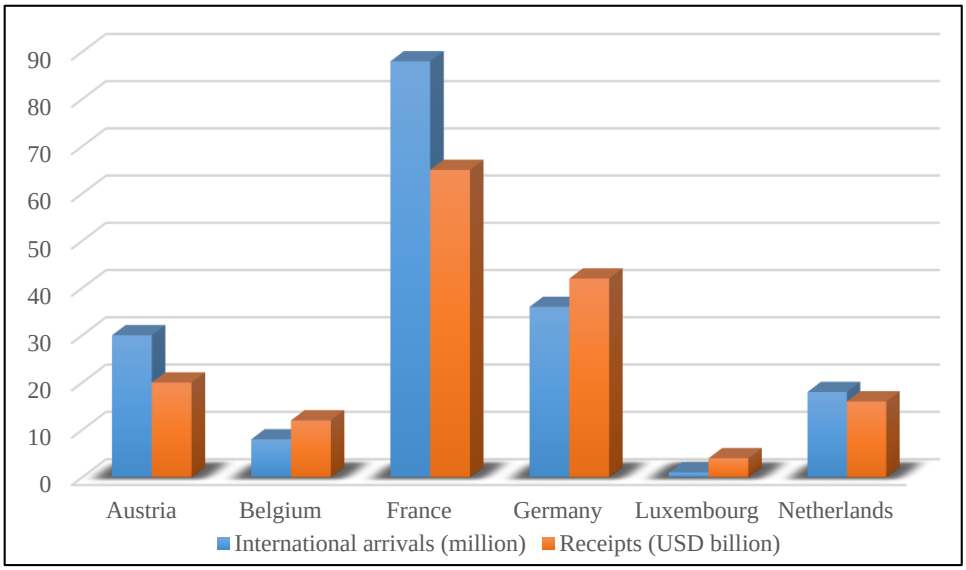

Figure 11: Western Europe Headlines. (WDI, 2018)

2.3.5 Northern Europe

According to the figure, except for United Kingdom, which performed precisely in a way that tourism receipt earnings accelerated the national GDP of the country, the worst performers include the northern Europe with only the overall 0.5% percent of growth, as for northern Europe, political issues, safety of country, which occurred in a decrease regarding economic recessions with intervention of government and stake holders could be modified.

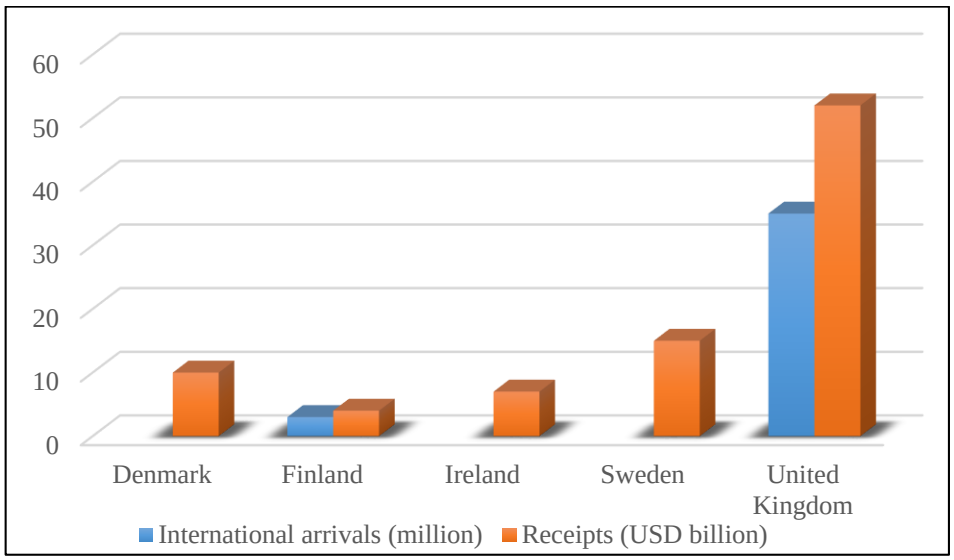

Figure 12: Northern Europe Headlines. (WDI, 2018)

2.4 Tourism in Australia

2.4.1 Perspective of Economy in Tourism Development

In 2019, approximately 9.4 million tourists visited Australia from overseas. This marked a 2.4% increase from 2018, when 9.2 million tourists visited Australia from overseas.

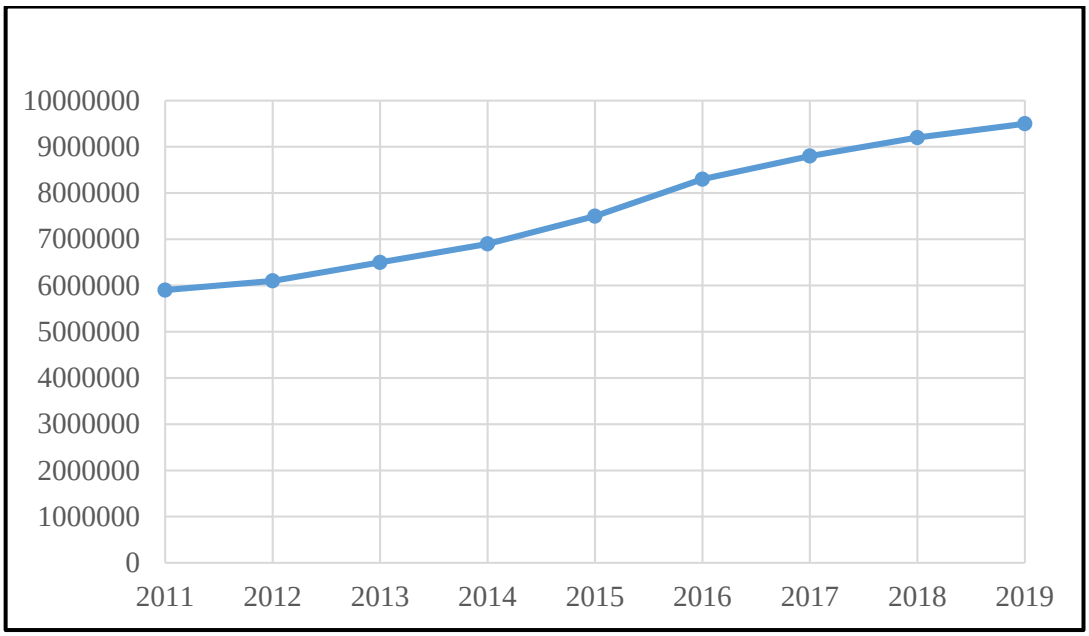

Figure 13: Australia Tourism Statistics 2019. (UNWTO, 2019)

Since 2011, Australia has seen a steady increase in international arrivals, with dramatic growth observed every year from 2012 onwards. This growth is expected to continue with projections estimating the number of international visitors to Australia will increase to 15 million by 2026-2027.

2.4.2 International Market of Australia

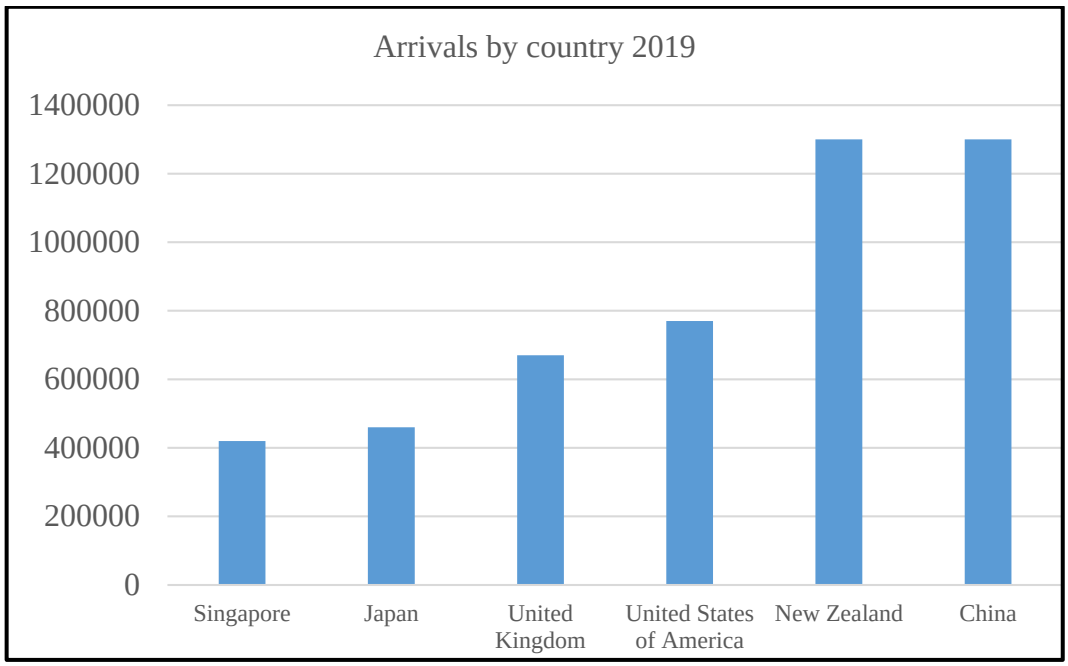

Figure 14: Arrivals by Country in 2019. (WTO, 2019)

According to the figure, Chinese tourists spent 12.4 billion during their stay in Australia. The main reason for traveling to Australia was holiday. 677000 visitors stayed in Australia only for holidays. The most visited places and cities were Sydney with 57% of visitors, Melbourne 51% and Brisbane with21% of visitors. However, the Chinese visitors totally spent 43 nights in Australia. Considering the Chinese population which is 1.38 billion, it means less than 1% of the population visited Australia. Visitors of New Zealand, spent 2.6 billion $ in Australia in 2019. Also, their main purpose was staying on holidays. 505000 people visited Australia from New Zealand which comprises 32% for Sydney, Melbourne 27% and Brisbane 19%. People from America have spent 3.9 billion $ in 2019. The American visitor's main purpose was holiday. 373000 visitors have visited Australia which included 67% of Sydney, 32% of Melbourne, and 15% for Brisbane. The American people stayed an average of 17 days in Australia. People from United Kingdom have spent 3.4$ billion in Australia in 2019. The main purpose of their visit was to visit relatives and friends. 344000

people visited Australia with 49% for Sydney, 32%Melbourne, and Perth with 22%. People from United Kingdom spent an average of 30 days in Australia. Japanese tourists spent 2.1$billion in Australia in 2019, which their main purpose was holiday, 313000 travelers came to Australia for holiday with 43% visiting Sydney, tropical north Queensland 25% and 20% Melbourne with spending an average 23 nights in Australia. Travelers from Singapore spent 1.5$ billion staying in Australia in 2019, their main purpose was holiday. 235000 visitors came to Australia for holiday with 34% Melbourne, 32% Sydney and Perth 27% which they spent an average of 14 days in Australia.

2.4.3 Socio Cultural Impacts of Tourism in Australia

Despite of economy contribution on tourism in Australia, there has been a major development regarding social and cultural improvement in Australia since 1980 (Craik 2001). Policy makers and stakeholders believe that tourism development play main role in prosperity of country. One of the main achievements of the Australia is the integration of policy makers with cultural policy in order to plan and design a prosperous planning for future of the tourism. Another aspect such as introducing brand image of tourism, Australian life style which links with the identification of country. Moreover, culture diversity, multiculturalism, cultural heritage, with relaxing lifestyle are known as the Australian identity which can be advertised and transported via strong marketing strategies. Another major asset of Australia which differentiates from other touristic destinations is the nature, which the country offers nature-based tourism offerings, beautiful landscape, native culture and natural sources, very patient, tolerant diverse cultured population. Despite of what is mentioned regarding the Australia possession, in order to have prosper, successful, higher quality destination require more. Increasing the quality requirements, different product choices, improved

human resource skills and infrastructures will increase the sustainability of the economy value in Australia. Since 2000, which Olympic Games held in Sydney, it had a significant impact on brand development of Australia as a destination (Brown, 2002). In relation to tourism development many of the country states started to improve and develop their own market events in terms of promoting tourist attractions. Additionally, many of destinations have expanded their own market to establish different perspectives regarding branding image for both international and domestic market. For example, Melbourne is known as the city of events for participation of different entertainments such as Formula 1 motor sport and cup racing. As for domestic travelers Melbourne is known as famous for Australian football, rugby and soccer. Additionally, many of European travelers admire Melbourne for its unique and historic architecture.

2.4.4 Environmental Perspective of Australia

According to the (Armstrong, Ritchie, 2008) regarding environmental issues, Australia facing many challenges related to environmental aspects which influences the tourism industry of the country. The design and frame of tourism structure in Australia such as different touristic attractions, infrastructures, geography of different businesses are sensitive about disasters. The nature of tourism generally is dangerous which is congruent with peculiar landscape. For example, Cioccio and Michael (2007) analyzes the bushfire of Victoria and revealed that, the business sector specially, small businesses have limited preparation and resources to be ready for natural disasters which additionally they argue that their main concern is the management of their business. In fact, the bushfire targets dry places in Australia. For example, in summer of 2010 witnessed strong heavy weather in Queensland when heavy storm occurred which produced flow of floods in different parts of the state, which made the state to

evacuate thousands of people. As for the prosperity of Australia which is very susceptible to different and dangerous natural disasters, with approximately 85 percent of the community living near the sea which have the risk of coping with different environmental disasters such as in case on increasing the level of the sea the population will have serious danger in hand, upon to this the government has invited different investors, stake holders such as from China in order to manage situational environmental impacts on tourism and also making China as a main contributor to the economic conditions of Australia.

2.5 Tourism in Africa

Africa know as second largest continent in the world with approximately 30 million kilometer and about 26000 kilometers of coastline. Africa is also among five most populated continents with near 1 Billion residents in its possession which distributed inconveniently in 54 monarch states. Africa has been recognized as peculiar and challenging destination, based on colonial overrun to the dark country. Despite of unusual missionary overrun, the continent is recognized as the diverse and different natural landscape with rich cultures. One of the famous and important tourism attractions is the Safari event in Kiswahili destination which the root of the destination goes back to the 19th century when people used to hunt animals. The development of tourism in Africa, appeared in tandem with 19th century of colonialism. For example, Egypt, Kenya, Morocco, South Africa, Swaziland have experienced an early development, mainly related to Northern America and European travelers. Africa simulation was correlated to imperial observations and extension. The frame and construct of native in the Maghreb with ideas of orientalism. Until the 1950 the growth of tourism was highly dependent on ownership of automobile by white European people, with unfavorable road lines which upon to the current situation motivated by

automobile galleries which started in the early of 20th century (Pirie, 2013). The development of aviation network which established in 1930 in colonial center of power in Europe, air transportation has become important channel for tourism growth. Up to now, the air transportation channel and network is one of the most important tourism components. High ticket prices, uncomfortable, unsafe and limited service are the problems of many countries.

2.5.1 The Growth and Development of Africa

After the announcement of independency in Morocco and Tunisia in 1950 and later Kenya, tourism was perceived as the green card for development in Kenya and Tunisia, the nature tourism observed to have important role. From the years of 1990, the tourism in South Africa grew noticeably which accounted for 94% of growth between 1990 and 2002 with continuous growth in 21th century with multi events and growth with agreement oriented of business tourism. Nowadays, the Safari trip is still one of the most important products in Botswana, Kenya, and South Africa. Wild life tourism is realized to be one success factors. The Island Tourism has also known sustainable tourism growth in countries such as Cape Verde (26%), Reunion (11%). During 2009, approximately 30% of international tourists were from Europe, 42% were African and only 4% were Americans (UNWTO, 2011). The main entrance points in South Africa the resorts located in Egypt, Tunisia, in which road and rail ways established insufficiently and port facilities and developments are inadequate. Despite of the fact the major and international events such as FIFA world cup have motivated development in South Africa, while other African countries witnessed less investment regarding tourism infrastructure issues. Limited destinations have experienced the tourism development procedure, such as South Africa 29 percent, Morocco 22 percent that contribute to total number of international arrivals. In 2012, the region experienced

and hosted 54 million tourists doubled compared to since 2000. The WTO estimation of tourist arrivals to African countries is about 134 million till 2030. One out of 10 jobs come from tourism and hospitality industry. Considering the previous development of tourism, Africa participated only for 5 percent of global tourism and for 3 percent of receipts which accounts for 1 billion $. Notably in 2012 the total GDP contribution was increased to 9 percent and the employment rate was increased to 7 percent. Tourism in North Africa in the most important countries in by hosting 33 percent of all international tourist arrivals, which experienced a serious decline since the Arab spring of 2011. Also, Tunisia experienced 31 percent of loss from 2010 to 2011. Organizations such the commission of UNWTO, and Tourism Organization (sub-Saharan non-profit organization) showed their concern about the tourism industry in the Africa continent. The strategies and policies, majorly had been developed at the domestic and international level which interested in proposing non liberal agents that enforce and motivate the role and participation of privatization and global competitiveness. For the purpose of constructing such future the policy and planning should be characterized in terms of education, natural resource conservation, and health and hygiene program, increasing the communication and information technology.

2.5.2 The Future Program

As Facilitating the future in tourism should focus on improvements and empowerment. Tourist mobilization by speeding the visa procedures, project developments, involving population in tourism development. The potential of Africa tourism is highly dependent on economic development and technology advancement in aviation technology, allowing of cost efficient and growth of air accessibility to and within continent. Increasing the potential of tourism in Africa requires adequate education

and skill training for provision of quality in tourism services. Perspective of growth of middle class considering the economic development underlies the future of region of Africa requires inter Africa tourism improvement.

2.6 Tourism in Asia

The world tourism organization with cooperation of united nation agency, commanded with motivation of promoted and globally sustainable tourism, the reports showed that the Asia and Pacific region hosted more than 260 million international tourists which comprises 30 percent of global percentage, with more than 14 billion$ revenue in 2013 with 5% growth. The region also accounted for more than 370 billion$ in tourism receipts more revenue comparing to 2014 with 4% growth. The international tourism is a main and important determinant of international trade that can be reported from tourism export which accounted for 1.5 trillion$ in 2014. According to the world tourism organization agency, the result of commodity price decrease, spending on international tourism has grown significantly in 2014, making the region motivate and promote the economic growth, creation of jobs and enhancing the capacity of export and import. According to world export classification, tourism rates 4th after chemicals, fuel, and food, but 1st in many developing countries. Table 2.2 represents the world top 10 destinations in term of international tourist arrivals and tourism receipts in 2014

Table 2: World Top Destinations in Terms of Tourist Arrivals and Receipts. (UNWTO, 2015)

Rank	Country	Us$ billion
1	United states	117.2
2	Spain	65.2
3	China	56.9
4	France	55.4
5	Macao (China)	50.8
6	Italy	45.5
7	United Kingdom	45.3
8	Germany	43.3
9	Thailand	38.4
19	Hong-Kong (China)	38.4

Asia and Pacific reports for 23 percent of international arrivals and 30 percent of tourism receipts. Tourism receipts comprises entering to a specific country and spend money over beverages and foods, accommodations, and other related services by considering the exchange rate inflation and fluctuations. The main destinations of Asia include, Myanmar reported with 51 percent of growth rate with outstanding results in hosting international tourist arrivals, Japan announced 29 percent of growth in line with tourist arrivals with tourism receipts, South Korea accounted for 17 percent growth, India with 11 percent, Hong Kong reported 8 percent growth, following with Malaysia, Indonesia, Cambodia, with substantial growth rate of 7 percent. However, the Vietnam witnessed 4 percent of solid growth. The growth rate for Singapore and China was 0 percent. Regarding tourism earnings, China placed 3rd from 5th with 10 percent of increase in tourism earnings. However, considering other major Asian destinations such Thailand affected by political instability which caused the country to experience by negative growth since the beginning of the 2014, in fact despite of the reports, Thailand is still ranked among top 10 destinations in international tourism receipts. Considering the rate of Thailand in terms of international arrivals, the country's place was taken by Mexico in 2014.

2.6.1 International Tourism Spenders in Asia

According to the reports revealed from world tourism organizations, China ranked 1st in terms of fast-growing country regarding market source which notably recognized as a top tourism spender in terms of international tourist arrivals and receipts since 2012. As a growth rate China recorded with 28 percent of growth rate in tourism expenditures since 2014 that reached the total number of 165 billion$ with great jump of 27 percent growth from 2013 with additional 36 billion$ in precise growth rate. All dimensions comprised the absolute advancement in disposable income, currency appreciation,

improvements in travel facilities, simplifying visa restriction for foreign travelers. In fact, Chinese international flights had been increased noticeably from the last two decades regarding the improvements, advancement of economic, political, environmental considerations with generating the 13 percent of world international tourism receipt. On the other hand, in pacific and Asia region other countries such as India and Thailand showed outstanding growth in tourism expenditures in terms of market source following the Philippine.

2.7 Travel and Tourism Competitiveness Index 2015

The travel and tourism competitiveness index together with world economic forum reports from 2007 which covers 124 main and emerged economies, since then the report extended to 141 countries. The reports revealed by the two organizations cover the evaluation of components which play important role in business development in tourism and hospitality industry of specific country.

Table 3: The world Economic Forum and Travel and Tourism Competitiveness Index

Country	2009 Rank of 133 countries	2015 rank of 141 countries
Cambodia	108	105
China	47	17
Hong Kong	12	13
India	62	52
Indonesia	81	50
Japan	25	9
South Korea	31	29
Laos		96
Malaysia	32	25
Myanmar		134
Philippines	86	74
Singapore	10	11
Thailand	39	35
Vietnam	89	75

The index ranked 141 countries through 14 different dimensions explaining the country's ability in delivering sustainable economic and social benefits in terms of managing tourism sector. The major sub index comprised of three major sub-indexes including, framework regulation, infrastructure and business environment, cultural, natural and human resources. Table 2.3 represents Asian countries comparing their progress since 2009.

According to the table, the prosper growth related to international arrivals recorded in South Asia, special advancements in price competitiveness with middle class expanding procedure. In addition to this, developing regional collaborations in terms of easing the visa policy is other main development, infrastructure advancement is also another succeeding factors of advancement with respect to the natural capital resources. In Asia- Pacific region the top 5 destinations recording second place after Australia is Japan with 9th place, following Singapore 11th place, and Hong Kong and New Zealand recorded 13th record respectively. Japan place 9th in terms of the tourist friendly destination with advancing with 5 steps up from 14th place compared to the previous years. The most important achievement of the Japan was the Human Resource advancement in terms of treating customers, which made the region to rank in the first place. Considering Hong Kong with continuous advancements in terms of infrastructures with score of 6.5 out of 10 takes the first place regarding ground infrastructure. At the mean time it scores 2nd place in terms of the business environment together with communication and information technology advancement. In fact, the rate of price competitiveness regarding fuel pricing policy, plane tickets, lodging prices have influenced the performance of destination noticeably. India gained competitive advantage in terms of competitiveness universally which ranked 52, which already accounts for 5 percent of employment, with great potential of additional

growth have made it clear by comparing 7 million international arrivals with china 55 million arrivals. The main determinants of tourism development which India lacks includes, the shortage of health and hygiene factors which scores the country 106th place, and 114th place in communication and technology improvements. Philippine major competitiveness area could be mentioned in terms of price competitiveness and international openness but lacks the security and safety problem following with health and hygiene issues. According to the world economic forum Thailand ranked 10th in the South Asia region stays behind Myanmar and Philippine regarding safety and security issues. Additionally, regarding political instability made the destination with reducing its ranking globally. Considering the Vietnam tourism environment including health, safety, security, stays behind the average advancement which the infrastructure of the country stays in the lowest degree among noted factors including political unrest.

2.8 Tourism in Turkey

In 2020 Turkish statistical institute reported a statement about the rise in the number of tourists coming to Turkey. The country welcomed 45/058/286 tourists on its borders which accounted for 34.5$ billion revenues in tourism industry. According to the statistics, 17% of Turkey comes from tourism hand hospitality industry. According to the statistics, Istanbul comes in the first place of welcoming foreign travelers, which generates approximately 15 million people in a year. Antalya takes the second place by 14.5 million spending their time in Mediterranean touristic places. The northwestern province of Edirne takes the third place of welcoming 4 million foreigners. With rich destinations and tropical weather in Istanbul, it is not surprising that 85% of 45 million visitors were foreigners. The highest numbers include Russia with 7 million tourists. Germany comes to the second place by 5 million over the same period. The remaining 15% of visitors were Turkish citizens from other countries who

travel to visit their country from time to time. Foreigners mostly prefer to spend on accommodation and local foods of Turkey. According to the statistics, Turkey recorded 2 billion $ combined with local foods and rental by hosting their foreign visitors. All these illustrations shows that Turkey experienced its highest peak at tourism industry in 2019. Figure 15 shows the Turkey's tourism revenue.

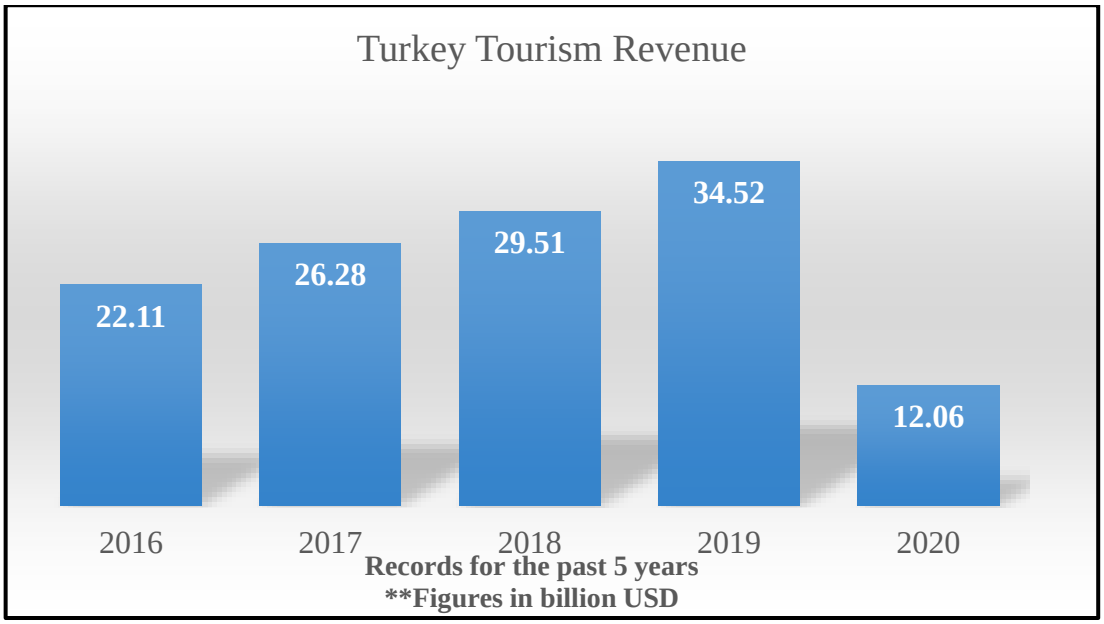

Figure 15: Turkey Tourism Statistics. (Turkey tourism statistics, 2019)

As the figure shows, the highest revenues from tourism belongs to 2019, according to statistics, the revenues from tourism industry in 2019 resulted in 34.52 billion $ which is the highest number compared to the previous and 2020, in fact for this reason by generating more on visa facilitation, increasing the safety issues and expanding tourism expenditures Turkey can generate more of this numbers indeed, another important issue could be the economy stability and inflation rate which directly correlates with stakeholders and politicians that play main role in political issues.

2.9 Employment in Tourism Industry

China's travel and tourism industry directly contributed to the largest amount of employment of any country worldwide with a total of over 29 million workers in 2019. India was not far behind with just under 27.5 million travel and tourism industry employees. This may come as no surprise given the size and population of both of these Asian nations. Comparatively, the European country that took the highest place in the ranking was Germany with a total of just over three million staff that are a direct result of the travel and tourism industry. Figure 16 represents the highest rate of employment in tourism industry.

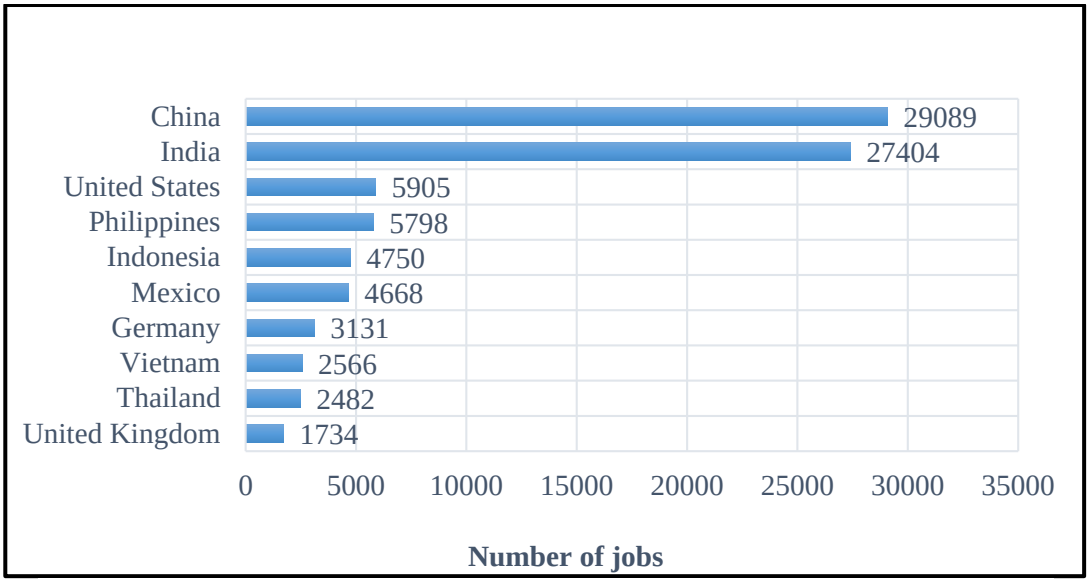

Figure 16: The World Employment Rate. (Statista Research Department, 2021)

As the figure illustrates, the China has the leading role of employing 29/089/000 people by creating approximately 29000 jobs. Compared to other regions and countries and regions, India takes the second place by generating 27/404/000 people by creation of 27000 jobs. The United States employs 5/905/000 people by generating 6000 jobs respectively following the Philippines and Indonesia with 5/978/000 employment and 4/750/000 employment respectively.

2.10 Tourism Destination Competitiveness

Over the past 20 years tourism scholars have witnessed a noticeable growth in improvisation of different tourism research which explains the requirements of destination competitiveness monitoring to define and assess the competitiveness in a destination. Referring to scientific philosophy, explanation and definitions can be true or false. The agreements on destination competitiveness in tourism studies are mostly reached on an extensive explanation and interpretation of Ritchie and Crouch (2003). If we look precisely on the factors to make a destination competitive is the capacity to enhance and develop tourism expenditures for increasing the number of travelers, visitors with high level of satisfaction in facility and services in order to record a memorable experience. As a matter of fact, the basic and fundamental factors which should be considered at the first stage should be the wellness of the destination resources, population and protection of natural sources, in fact for the purpose of providing desirable and satisfying service, the readiness of that destination will be the first aspect of competitiveness (Ritchie and Crouch, 1993). This interpretation consists of more than a definition or explanation, most likely it is a cause-effect hypothesis that refers to traveler's experience and satisfaction. In fact, the assumption's first emphasis is the satisfaction and wellness of the destination residents, despite of increasing the number of visitors in a destination the most important factor and element is to make sure of destination's well-being from different aspects. According to the competitiveness assumptions, the first and important factor is creation of price competitiveness. Actually, the price competitiveness is highly mentioned and emphasized by Dwyer, Forsyth and Rao (2000, 2001) who proposed and conducted a comparative study on 19 destinations based on price competitiveness. Based on their observations price sensitivity and competitiveness is highly recommended for stake

holders, politicians in order to consider the tourist purchasing power with high ratio of selection based on the destination. Precisely, up to now the most accurate studies on price competitiveness had been conducted and developed by Ritchie and Crouch. In fact, from the past 10 years. The stability of this universal assumption that differentiates between competitive and comparative advantage on five core competencies such as destination policy, development mission, destination managing system, attractions, core natural resources and supporting policy (Crouch and Ritchie, 1994, 1995, 1999; Ritchie and Crouch, 1993, 2000, 2003; Ritchie, Crouch, and Hudson, 2001). However, significant goal of a destination is to characterize the destination future based on the destination wellness. Ritchie, Crouch and Hudson (2001) proposed an operational measurement for massive classification of the competitiveness core competencies. Additionally, they developed extensive list of factors with combination of subjective customer measurement and objective industrial measurements for every 32 items of destination competitiveness. This classification is considered to be the first step in compound of destination competitiveness and also enhance the prosperity of destination performance in long term. At this content Dwyer and Kim (2003) developed major holistic view of main components, which define destination competitiveness. The labeled factor was specified in situational factors, destination management, supporting conditions, endowed sources, market situation and performance which were conducted during workshop with hospitality managers and stakeholder in Australia and Korea. Enright and Newton (2004) proposed relative important business features and tourism fascinators of destination competitiveness. Scholars executed importance-performance analysis in Hong Kong which consist of practitioners of tourism industry. In fact, it could be misleading to make a comparison of direct importance of destination competitiveness indicators with indirect

measurement to express their influence on destination competitiveness results. Enright and Newton (2005) discussed exploration of importance of 15 attractions with 37 business factors in order to determine the competitiveness of Hong Kong, Singapore as tourism destinations. Factors related to core competencies or attractor seemed to be cause more discrepancy between destination specific judgment than business factors. Scholars such as Pashardes and Sinclair (2005) have published specific issues regarding tourism competitiveness on Tourism Economics journal. Additionally, Mangion, Durbarry and Sinclair (2005) proposed Almost Ideal Demand System and hedonistic price theory for assessing the competitiveness of Island destinations (Cyprus, Malta, Spain) offering holiday packages. The Almost Ideal Demand System (AIDS) provides a destination with price and Income elasticity. Cross price elasticity specially provides relevance of price competitiveness for each of destination, afterward, the Hedonistic price theory comes to the point that evaluates the potential reasons of high or low-price competitiveness. The virtues of holiday packages were analyzed related to the tour operators charge higher prices hoping that tourists would accept the deal. Mangion, Durbarry and Sinclair's approach involved reasoning and, cause-effect relationship. Gooroochurn and Sugiyarto (2005) revealed the competitiveness monitor related to improvisation on world travel and tourism council (WTTC) with extensive collection of data which provided free access on their website (www.wttc.org). The scholars provided 23 competitiveness monitor ideas in indices for every core factor on social and economic impacts, price, human resources, technology, infrastructure, environment, trade openness and social development. All of indices constructed for each of core competencies, and the weights of core indicators. In fact, there was a basic and fundamental intrinsic problem of such attempts to capture the competitiveness. As for this case cause-effect of

competitiveness were mixed in order to reach pure descriptive assortment. For instance, number of arrivals and departures as ratio of population of a destination inserted in the human tourism indicator (Gooroochurn, Sugiyarto 2005). It means nobody can apply the result of competitiveness index to make an explanation and prediction about success or failure of tourism in a destination without duplication.

Table 4: Rankings of Destinations in 10 Years from 2012. (www.sagepub.com)

Rank	destination	Market share	Rank	Destination	Market share
1	France	11.98	1	United States	492.7
2	Spain	8.29	2	China	413.1
3	Italy	6.44	3	Mexico	227.1
4	China	6.29	4	Malaysia	216.0
5	United States	6.14	5	Spain	199.7
6	United Kingdom	3.32	6	Canada	184.1
7	Canada	3.05	7	France	179.7
8	Mexico	3.00	8	Hong Kong China	176.5
9	Austria	2.84	9	Italy	117.1
10	Germany	2.83	10	Thailand	105.6
185	Bhutan	0.00092	185	Bhutan	0.053
186	Marshall Islands	0.00080	186	Tajikistan	0.052
187	Kiribati	0.00065	187	Moldova	0.046

The main purpose of competitiveness, is to shape factors such as opportunities, increase productivity, sustainability and enhance the prosperity of companies and regions through the world (Porter 1990; Aiginger et al. 2013; Huggings and Izushi 2015; Huggings and Thompson 2017). Waves of interests in the fields of competitiveness have correlations together with important change in the global economy. For example, proper and rapid changes of Japan role in the world's economy

between 1970's and 1980's and other developed industrialized countries of Asia (Hamel and Prahald 1996). The usage of competitiveness strategy via business men, politician, media group and its durability for sure will create prosperity and success and also challenges to improve the level of adaptability (Aiginger and Vogel 2015). Study of competitiveness conducted via Michael Porter and other associates have provided pressures on researches. By considering competitive advantage of all nation projects and research, Michael Porter (1990) created different perspective on competitiveness which formed practices and researches. From different projects, they revealed that from the old and traditional point of views on competitiveness they cannot provide major and important differences in company's competitiveness (Solvell 2015). They provided substantial questions and Diamond Model which forms arguments about competitiveness on an ongoing base. Furthermore, there were some limitations regarding practical content of model, such as in North America and Asia showed stimulating opportunities researches in jointing International Business and Competitiveness. Many interruptions in last two decades of current century require conduction and reevaluation. Approximately 10 trillion dollars were provided via central bank in order to achieve the limits. Two countries of China and India are generally formed functions of competitiveness in their progress to reform their background. Diverse forms of country and company competitiveness in China and India expressed some prolific fields of research regarding competitiveness and strategy, policy and international business (IB). Both China and India have been challenging well enough to climb the ladders of their competitiveness. In fact, India formed the level of 50s to 40s and finally reached to 30s in terms of global competitiveness (Momaya, 2011). According to (Momaya, 2011) realized this progress as a significant step for India as matter of sophistications and its population.

For example, in sample of 500 countries, between the years of 2005-2018 has recorded 8th and china has recorded 10 times ahead in terms of firm competitiveness. Different forms of competitiveness between countries show main opportunities for research and development on competitiveness. Precisely, researches required to review the relationships of competitiveness and relevance of strategy and International Business. As long as competitiveness has connection through different levels and also intuition from system having higher level of connection at Micro and Macro would be positive to find irritating problems which world facing. For example, for a company competitiveness connection with areas such a human resources, strategy, finance, operation, innovation and technology management should be thanked to observe the company's problems regarding global competitiveness and business. Innovation with competitiveness are significant arenas with increased capacity of relevance with International Business and strategy.

2.10.1 Analyzing Competitiveness from Macro Dimension

In order to realize the dynamism and motives of competitiveness, several researches with experiments have augmented during 1990s. for instance, Michael Porter (1990) have revealed interesting concepts for destination competitiveness aiming reevaluation and redefining the foundations of national wealth. At this concept the Porter's Diamond model expanded for observing some limitations. On the other hand, Momaya (2011) tried to increase the productivity and generalizability of competitiveness concept to complete competitiveness asset, process, performance (APP) which was conducted within countries such as Canada, Japan and United States. The concept, APP framework has also been executed in different systems and Micro-level dimensions in terms of company base and expanded via human resource (Cho, 1994) involved with fresh and extensive form which evaluated to assess the competitiveness level in

countries (Cho, et al. 2016, Moon, et al. 2015). To understand the links between competitiveness level, Banwet et al. (2003), Bhawsar and Chattopadhyay (2015) considered the companies root importance with sources of innovative economic value and competitiveness. Aiginger and Vogel (2015) expresses that, in order to connect the competitiveness with innovations in the firm theory, we need to emphasis on ecological ambitions, social investment and also eco industries as major drivers of competitiveness definition in order to increase the ability of the country in satisfying the citizens. Additionally, they also discuss about the quality and sophistication of goods and fertility as competitive advantage and also emphasis the firm potential in terms of competitiveness motivator.

2.10.2 Analyzing Competitiveness from Micro Dimension

(Porter, 1990) reveals and consider that why some companies from specific countries have the potential to innovate and maintain advantage of competitiveness in a special industry is a main concern. The answer could be the company's adaptability to change and also having strategic purposes that should be completed in international markets. Relative construct selection for firm's competitiveness attracted researcher’s attention. Strategic theories provided many prolific links in order to observe competitiveness sources. Study of Industry Structure View and supplementary Resource Based View Penrose (1959), Barney (1986), Prahlad (1990) can be addressed as major approaches. Tece et al. (1997) proposed a new approach of Dynamic Capability View as updated version of Resource Based View. The dynamism capabilities are recognized as systematic process located in company that can assist in gaining competitive advantage. Regarding the mentioned theories, the competitiveness theories are numerous, however, till now all these theories could explain competitiveness limitedly in emerging nations and regions where, governmental organizations are more powerful

than market based industries. According to (Peng, 2002, Peng et al. 2009) institution based view aims to discuss the limitations. In order to learn from significant contributions of strategy and other aspects of management, alternative perspectives and aspects can be involved which can provide more simple and general approach to define and measure competitiveness. Scholars centered the exploration of competitiveness relevance through provided general framework of competitiveness, such as (APP, Momaya, 2001) proposed, Asset, Process, and Performance that is being used across developed and emerging industries.

2.11 Concepts and Definitions of Destination Competitiveness

Destination competitiveness has received comprehensive attention in different areas. The content of competitiveness had been specified in many articles, journals to address the main components of gaining advantage in competitive environment. From 2000s the topic had been a subject of research in journals such as tourism management (2000), tourism Economics (2005) additionally in global hospitality and tourism literature (2010). The number of articles which had been published from 1997 to 2016 that reviewed competitiveness included 151 articles which of these 151, 95 conducted based on quantitative research, 35 were applied qualitative research, and the rest of 21 have conducted conceptual framework. As a matter of fact, the increased attention on competitiveness expresses the superiority of competitiveness foundation as strategic concepts in terms of high managerial practices, knowledge, and its literature. Hall (2007) pointed out that, there is still essential confusion about competitiveness, mainly in content of its literature. However, (Wint, 2003; Croes and Kubickova, 2016) noted that, the definition of competitiveness because of its competing nature and also the usefulness of the term is the root of difficulties of precise definition. For example, scholars such as Michael Porter management analysts are intended to apply the

competitiveness to national economies. On the other hand, Paul Krugman (1994, 1996) which known as economist challenges the competitiveness to national economies. Based on Paul view, competitiveness becomes meaningless when it comes to national economies. The very Paul Krugman (1994, 1996) discusses that the fantasy of competitiveness not right and is dangerous because the trade as comparative advantage is grounded on presuppositions of positive games, while competitiveness is discovered on competition and rivalry, that finally could lead to chaos and conflict between countries and nations. These notions seem to offer a comprehensive literature on competitiveness that implies different policy conclusions. For example, comparative advantage will lead policy to increased productivity, but competitive advantage will focus on business improvements. Notably, some steps had been conducted to build primary requirements of destination competitiveness. Despite of consolidation of conceptual framework of destination competitiveness, available literature shows concerns regarding exploration of factors that contain destination competitiveness and statistics in order to support the hypothesis (Mazanec, and Ring, 2011; Benito et al, 2014; Zehrer et al, 2016). Other scholars tried to propose general requirements for competitiveness prosperity. For example (Abreu-Novais et al., 2016) mentioned that factors such as, sustainability, satisfaction, attractiveness and ability as crucial factors in destination competitiveness involvement. In fact, the ability mostly come to be dubious in term of destination competitiveness definition, some studies such as (Melian-Gonzalez and Garcia-Falcon, 2003) pointed that, the term of destination competitiveness mostly characterized by destination potentials. However, the definitions on competitiveness of destination are somehow difficult, because first of all regarding the relationship between competitiveness and firms there will not be any consensus related to the factors of competitiveness analysis. The second reason is that

the arguments on competitiveness require dependent variable that makes analysis difficult and full of challenges. Moreover, there is not a clear conceptual framework as a source of competitiveness. As a matter of fact, challenge begins here, by asking what is the motive of destination competitiveness. Productivity, business climate, cost or infrastructure and innovation, these noted factors are highly related on potential (Melian-Gonzalez and Garcia-Falcon, 2003). The main and important factor is whether the determinants of destination are well defined or not? The main argument on characterization of competitiveness is the debate of analysis relating concept of competitiveness. The argument is based on two main concepts. For example, the firm and destination. The destination is considered as the measure of analysis regarding characteristics of nature of tourism product. Tourism represents different factors which differentiates it from other sort of goods. In fact, tourism known as a product that covers and represents the whole destination. The second phrase is the tourists as a consumer who is looking for an experience to use the product differently comparing to other products. Experiences such as airline selection, facilities and hotel, all these noted factors are derived from choices of travelers and tourists among selected destinations. Hospitality industry and tourism sector became competitive among different destinations, enforced to improve performance by attracting more visitors and increasing the level of sector revenue. However, the competition main focus is tourism destination. Rapid increase in production cost in comparison to other economic activities, using methods and opportunities such as scarcity exploitation for increasing prices, universal markets failures in production and consumption features and tourism patterns that constrain critical challenge to destination's competitiveness. All these present conditions in tourism industry have made scholars to focus on competitiveness from different perspectives (Crouch and Ritchie, 1999; D'Hauteserre, 2000; Dwyer et

al., 2002; Hassan, 2000; Go and Govers, 2000; Heath, 2003; Enright, Newton, 2004; Sahli, 2006; Craigwell, 2007; Gursoy et al., 2009; Croes and Rivera, 2010; Azzopardi, 2011; Croes, 2013; Croes and Kubickova, 2013; Webster and Ivanov, 2014; Ayikoru, 2015; Cvelbar et al., 2016). Additionally, many of scholars and researchers prioritized competitiveness from a firm perspective despite of evaluating the microeconomic dynamics of competitiveness in destination. This evaluation shows that, disaggregation of firms with different competitive position would be the appropriate way gain competitive advantage. The presupposition of these studies is that tourism, is highly related on services, products and offerings in a destination. Competitiveness of firm level commonly focuses on the ability of the firm in size improvement, extend universal market share which lead to increased profitability. The power of this kind of firms is highly important standards of national competitive advantage. The focus of scholars had been conducted to manifest which of challenges influence company's competitiveness and also ascertain the heterogeneity of domestic destination.

In fact, the main purpose of these researches is that the firm behaviors are bounded by competition, shows that their responsibility and relationship with other companies ruled by zero sum game. Generally, the company perspective considers the resources of competitiveness such as tangible and intangible sources, management and internal decision-making procedure Buhalis (2000) and Melian Gonzalez and Garcia Falcon (2003), Campos-Soria et al. (2005), Hong (2009).

2.11.1 Competing Ideas on Destination Competitiveness

Reviews of competitiveness from Adam Smith to Michael Porter, shows that competitiveness accomplishment derived from resource and technology availability which refers to (comparative advantage) to the extension of customer experience adjustment that refers to (competitive advantage) Croes (2018). Complexity in definition of competitiveness comes from competing perspective of (Wint, 2003). An important reason for the complexity in defining the competitiveness is the existence of two important thoughts, comparative advantage and management school. Each of these schools have their own propositions with different perspectives which lead to different policy and managerial implications. The comparative advantage concept stems of works of Adam Smith and David Ricardo that proposed explanation of countries to involve on trading in order to gain advantage and prosperity Croes (2018). The efforts have made by two schools was a respond to mercantilist assertion that countries do not need to involve in trade for the purpose of prosperity (Salvatore, 2002). The evaluation of natural resources dispensation and differences in productivity levels between countries and nations are the foundations of comparative advantage view. Eventually cost differences are realized as base of international travel. Such as, natural resource accessibility, attractions, sunny weather, beaches, natural sources become comparative advantage in hospitality and tourism sector forum which shows why these factors importantly specified in Tourism. The framework of comparative advantage embraced tension in hospitality literature from Gray (1970). Other scholars such as Hassan (2000) employed the work of comparative advantage in the concept of destination competitiveness. On the other hand, Zhang and Jensen (2007) conducted comparative advantage concept to explain tourism circulation and pointed out that technology, natural resources, infrastructures known as important factors and elements of

competitiveness. The competitive advantage thought comes from management theory, the one nominated by Michael Porter, which demonstrate that the advantage is within the innovation of core competencies and importantly the extension and effective usage of resources, in fact this is obtained via applying sources to consumer experiences. In fact, the creation of resources importantly becomes more critical compared to the inherited resources in wealth and trade explanation. Michael Porter in management school, challenges the illustrative power of the comparative advantage in determination of location advantage. The school states that the location as a source cannot be considered as a trade, but instead the sources of location advantage come from country's attribute which goes through factor dispensation. Michael Porter's diamond model (1990) explain four important attributes which are crucial to motive competitiveness such as; demand condition, factor condition, strategy of firm, rivalry and structure, related and support industries or clusters. The diamond model was applied by Ritchie, Crouch's and Calgary's destination competitiveness model (1999) within hospitality industry and tourism concept that later followed by different numbers of scholars in tourism literature such as (Dwyer and Kiim, 2003) who complemented the destination competitiveness model and also Sugiyarto and Gooroochurn (2005) tourism competitiveness monitor. The considerations emerged from Porter's work that objected to trade theory included; the porter's firm strategy, rivalry and structure requires competition among countries not only between firms, therefore regarding the Porter's view, trade involvement is a zero-sum game. Michael Porter diamond work focuses on each country's special advantage based on location and fundamental role it plays, while comparative advantage concentrates on segmental comparison among countries. For instance, Ecuador as a country seems to inveigle a power full diamond source in eco-tourism, but Costa Rica seems to have a comparative

advantage in eco-tourism compared to the Ecuador (Croes and Rivera, 2015). Eco tourism system is important in Costa Rica than in Ecuador. Therefore, the country could be the great source of diamond, but in fact could require a comparative advantage. According to the Porter's framework, a company might follow monopolistic situation that have contradiction with well-being as a definitive aim of competitiveness. Despite to the Porter's implication, comparative advantage is covered with following of well-being via trade as the main and important goal of competitiveness. All discussions express that the different notions about each idea on competitiveness, trying to explain the differences in performance level of firms, suggesting different assumptions. As a matter of fact, the comparative advantage focused on main conversions in perspective that includes the movement from cost to productivity of firm in order to measure the trade pattern explanation. For instance, if we want to investigate the unit labor cost as a unit cost of a destination for purpose of assessing the ability of a destination to sell tourism products and services, an appropriate solution would be the protection of market share for payments of import. The policy needs to focus on tracing the macroeconomic balances and also concentrate on attempts in order to control the labor costs. If macroeconomic balances would maintain wages low and to obtain limited benefits, the policy probably would dissemble critical competitiveness main goal that is to enhance the well-being. Exchange rates are representatives of competitiveness measurement. For example, in tourism concept, scholars such as Balaguer, Cantavella- Jorda (2002) conducted affective exchange rates as delegate, they focused on currency value for destination competitiveness measurement. Preferably, the focus on destination productivity based on the ability in order to create value that relies on production value will address the standard of living and well-being. Hospitality and tourism industry is a low productive

system compared to the other industries. Because of this fact, over time, tourism might entail increased production costs compared to other industries because of its high emphasis on human capital. For a destination to increase the productivity in order to make the business more competitive is the ultimate goal, and also it is critical to increase the level of profit therefore allowing them to pay higher wages. The debate policy is to consider on how to enhance and support productivity growth. A destination requires to focus on productivity context by balancing costs and productivity, because the demands for tourism products and services are characterized by high elasticity (Croes, 2011).

2.11.2 The Dependent Variable Enigma

Sustainability in any destination starts with three main determinants, the maintenance of natural resources, the cultural advancements inbound of the region in order to increasing the potential of development in terms of readiness of the destination residents to host foreigners. Well-being and improvements of people of the destination will majorly accompany in destination prosperity of competitiveness. Evaluation, specification and clarifying the main competencies of destination also will be the main determinants in terms of gaining advantage. By specifying important assets of destination for improvement, the destination will have the appropriate culture with richness of specialized resources in order to serve outbound. In fact, by considering the residents as main components of sustainability in terms of health, wealth, safety and well-being of society will provide conditions to increase the level of standards, creating new opportunities of competitiveness and also maintaining the core natural resources for next generation. The role of competitiveness in expositive framework is the review of destination competitiveness concept that proposes the creation of a construct to increase the living standard and increasing the destination resident real

income level, to activate and fosterage well-being and prosperity. Most importantly to increase the tourism performance via arrivals, market share, revenues, job potentials, and economic impacts. Ritchie and Crouch (2003) defined competitiveness in terms of the abilities to enhance expenditures of tourism, increase the number of tourists with providing satisfactory and attractive memories, planning in a way to increase profit and processing the well-being of the residents also by preservation of natural resources and capitals for next generations. D'Hauteserre (2000) proposed another definition regarding destination competitiveness as capacity to preserve the market share and increase them in future. Dwyer, Kim (2003) revealed about critical role of competitiveness in increasing the income level of residents which reflects in the living standards of nation or country. Crouch with Ritchie (1999) considered competitiveness in terms of providing high living standards for its residents. At the same time Enright and Newton (2004) proposed that the destination can be realized competitive in terms of potential tourist attraction with satisfying services. This competitiveness is highly related to tourism specific factors and wide range of variables which influence service providers. Hong (2009) stated competitiveness as a position of high profits and prosper growth of a country related to the global market of other competitors as destinations that will result in high income and favorable living standards. Azzopardi (2011) defines competitiveness in content of destination as the extraction and identification of comparative and competitive advantage to attract tourists to a destination by providing an inimitable experience with desirable price which meets the profit margins of the industry and main elements while satisfying the well-being of the residents. The association of Economic Cooperation and Development (OECD) (2013) defined competitiveness as the potential of destination to improve its attractiveness citizens and tourists for providing quality, creative products and services for customers for

obtaining market share on domestic and universal market with a plan to rescue and preserve current resources for future generations in sustainable and effective way. On the other hand, the European Central Bank President Mario Draghi, defined competitiveness as macroeconomic conditions with institutional situations that allows productive firms to succeed, and also the development of these companies provide the development of employment, trade and investment (Ketels, 2016). The competitiveness complexity foundation proposed by the explanations and definition of OECD (1992) that relies on a country's results of achievements, while the World Economic Forum (2011) considers the inputs which shapes the country's competitiveness. There had been efforts to identify containing destination competitiveness foundation since the work of Crouch and Ritchie (1999). These efforts at this concept propose the examination for extensive conclusion of the competitiveness (Kozak, Rimmington, 1999; Kozak, 2003; Mangion et al., 2005; Kayar, Kozak, 2007; Zhang and Huang, 2007; Wang et al., 2012). Crouch and Ritchie proposed 36 destination features with 250 variables. On the other hand, Dwyer (2004) identified 83 items, and Gooroochurn with Sugiyarto (2005) proposed 54 variables. Enright and Newton (2005) identified 15 fascinators with 37 business variables which encapsulate the destination competitiveness foundation. Hong (2009) and Mazanec et, al (2007) also revealed that destination competitiveness includes a great number of variables. The World Economic Forum (2019) tourism and travel competitiveness index (TTCI) is comprised of three components: 1- travel and tourism regulative component 2- Travel and Tourism business environment and infrastructure index. 3- Travel and Tourism cultural, human, and natural resources indices. The indices composed of 14 pillars comprised of 72 indicators. By all means the World Economic Forum and Travel and Tourism Competitiveness Index include 174 indicators. This

general consideration requires focusing on producing an extensive list of relative variables which propose that for destination in order to gain competitive advantage, it requires to obtain all these factors, any hesitation or failures to achieve these indicators will result in destruction of that destination. This notion is most likely similar to the work of Anne Karenina which expressed that there is no warranty from any of these factors which will lead a destination to success but through failures the destination will achieve the success. The bias of Anne Karenina statements could subordinate from propositions that every destination requires to obtain all these indicators effecting positive or negative conversion for critical factors correlated with foundation exclusivity. The bias could probably fail to identify that preferably not all factors are related in shaping the destination competitiveness foundation. Some of factors and variables might add values in order to able us to understand the concept, while other variables might make us obtain great understanding of the concept. In order to provide a strong frame for the foundation, it is crucial to provide a balance between extensiveness and parsimony. The concept of parsimony emphasizes that the factors which adds little value to our understanding should be removed. Generally, when the researchers try to address the concept of a topic, they could make mistakes in concluding many variables or factors, realizing in time their propositions and ideas will be purified. At the mean time it will be easier and prosper to omit the unnecessary variables or factors despite of adjustments or refining variables. However, in order to be able to provide a balance between crucial and vital factors, different number of studies started to weigh and prioritization of important factors which could be the vital in realizing the competitiveness of destination foundation (Enright, Newton, 2004, 2005; Crouch, Ritchie, 2005; Gooroochurn, Sugiyarto, 2005; Mazanec et al., 2007; Hong, 2009; Lee and King, 2009; Crouch, 2011; Abreu-Novais et al., 2016). The main

and important attempt is to clarify how all these factors are related to each other. In fact, the connection of variables would provide discipline to the conception by precisely ascertain standard. Mazanec et al. (2007) mentioned about the lack of correlation between factors in tourism literature. An important attempt should be pointing out the missing link of the cause-effect correlation which cause the connection of plenty of crucial variables, also to consider the indicators as inputs rather than focusing on destination competitiveness. Crouch (2011) revealed that the destination competitiveness's dependent variable must be the performance level of that destination. In other study such as Mazanec et al (2007), proposed the need for performance direction as an extensive and professionally frame of destination competitiveness possess limited valency in case it correlates to performance of destination. Moreover, destination competitiveness could obtain the theoretical figure in cause-effect system. The look for foundation of conceptualization domain has boomed in the work of Croes (2011) who changed the destination competitiveness argument from input focuses to output direction. Croes conducted his work in the field of comparative advantage theory combining the productivity as a headstone of his destination competitiveness concept. Additionally, Croes research was founded in the efficiency concept, therefore with combination of supply and demand in destination competitiveness conceptual framework. However, his work proposed causality assessment, preparing intuition into the important and underlying dynamic which adjust factors and variable selection and proposed casual relationships, including what destination competitiveness asserts and the dependent variables which were explained as the exchanging rate of spending by arrivals that were equated by value. In another work conducted by Croes and Kubickova (2013), the domain subject was later was clarified with the combination of concept quality of life into destination

competitiveness foundation, but other studies preserved dependent variable as a performance heterogeneity between destinations. The study subsequently included that the concept of quality of life as an important ingredient shaping destination competitiveness.

2.11.3 The Formative Construct of Destination Competitiveness

In an effort to provide persuasive intuition in terms of correlations among multiple ingredients including destination competitiveness, Mazanec and Ring (2011) realized destination competitiveness as a hidden factor with the capability of making an explanation about uncovered dependent variable. Ring and Mazanec evaluated travel and tourism competitiveness Index of World Economy Forum that claimed competitiveness in efficiency and productivity domain. Their research and study were critically important relating World Economy Forum and Travel and Tourism Competitiveness Index. In fact, they revealed that cause and effects suggested by World Economy Forum can be irritated by tautological factors presented in dependent and independent variables. Mazanec and Ring visualized the Travel and Tourism Competitiveness Index foundation both formative and reflective at the same time. The formative construct conceived in travel and tourism regulatory framework, the travel and tourism business environment and infrastructure and cultural, human and natural resources. According to study, the travel and tourism Competitiveness Index represents important foundation and three sub-indices are composed of formative indexes (Mazanec and Ring, 2011). The construct of competitiveness has also been viewed as reflective model either. In fact, the foundation of competitiveness actually reviewed in terms of main and important three measures of Tourism performance which comprised of tourist arrivals per capita, diversity in tourist arrivals in time span. Moreover, tourism receipts. According to Mazanec and Ring, the travel and tourism

Competitiveness Index is the former from those results or effects that allocates the figure of cerebral factors of overall competitiveness foundation. Additionally, the Mazanec and Ring results are dubious. Unintentional mixture of reflective and formative factors with same items in a construct is the reflection of a distinct literature of what exactly desired to be assessed. The diagnosis of these two measuring models is critical because suitable specification of a construct requires a meaningful relationship. For example, in the theory of reflective model, the dimensions of a manufacture are positively connected to each other. Moreover, the indicators are exchangeable with causality stream from foundation to the indicators. But formative theory demonstrates causality stream indicators to the foundation or construct, which also add or drop of an indicator or item might change the concept of the construct (Hair, et, al 2014). According to what have been discussed, the four important constituents of tourism competitiveness can specify as capability of resource deployment, memorable tourist experience, ability of high-performance creation, which leads to increased quality of life. As a matter of fact, tourism competitiveness is highly correlated with technology, people and infrastructure which directly correlated with higher potential of performance that will result converting the potential into prosperity. This is what will make competitiveness sustainable. Generally, in tourism literature, in a competitive touristic destination, the industry could comprehensively grow in time which will increase the quality of population of that destination (Crouch, Ritchie, 1999; Dwyer, Kim, 2003; Kim et al., 2006; Sahli, 2006; Craigwell, 2007). In fact, competitiveness is the former or antecedent of life quality. Clear definition for quality of life has not generally been specified in destination competitiveness concept, but scholars and researchers have specified the quality in terms of the well-being of a destination in culture and income directed factors. Crouch

and Ritchie (1999) define competitiveness in terms of capacity to enhance expenditures of tourism, comprehensively attracting tourists by providing them memorable experiences at the same time by providing residents high -living standard and the cultural and natural resource maintenance of that destination. This general and extensive definition surrounds some hypothesis in terms of cause-effect correlations. For example, satisfaction produces increased number of tourist arrivals which that the well-being of residents is the result of profitability. At the mean time authors such as Dwyer and Kim depict that competitiveness should be positively correlated with performance of destination. They reject to propose a distinct explanation and definition for performance which could allow performance for multiple assessment that results as impediment factor in destination comparison process. Upon to this fact, considering competitiveness as formative construct which perceived a dimensional foundation analyzed via different formative measures such as productivity, satisfaction, competition, and life quality.

2.12 Nature and Framework of Destination Competitiveness

Competitiveness can be realized in terms of dependent, independent and intermediary factor in analytical concept (Man et al., 2002). In other words, it the competitiveness refers to distinct perspective in specified time. For example, in debate of comparative advantage the administrative and strategic outlook or cultural and historical outlook. According to (Nelson, 1992) the competitiveness is realized as a measurement or study that its focus is on different level of assessments. For example, the analysis for individual level of a firm or company, microeconomic analyses for an industry, and macroeconomic analyze for region or country competitiveness. (Rugman et al., 2001) refers company level in terms of capacity of a firm that designs, produces and markets services and products with desirable particulars compared to the other products and

services which produced by competitors in universal competitive market in which the abilities, capabilities, ideas, people and also people can easily circulate through international borders (Ambastha and Momaya, 2004, Chao Hung, Li Chang, 2010). A corporation is competitive when produces much better services and products with higher quality at a low cost than its competitors. The concept of competitiveness refers to the concept of competitive advantage. A comprehensive mission of performance and competitiveness of a firm is highly affected by advantage. In fact, the essence of that advantage will come up within more special source of competitive advantage that firm regulates. The vision is to center the strategic management study which is the recall of rivalry and comparison (Porter, 1985, Ghemawat, 1986). In fact, the competitive advantage main goal is the position domination in an industry which has been developed and compared to other competitors. The superiority of competitiveness in a company will be resulted in the ability and capability to design, produce, and supply better products compared to other competitors. The domination of competitiveness is assessed in terms of quality, technology and price advancement. Competitiveness could be realized at different levels of associations such as, the industry of a company in specific region or country. The analytical level of a company considers the performance and behavior of that company. Competitiveness is usually assessed with the level of the group or an industry by making a comparison with another group or industry from another country. Despite of important factors of company or industry, globalization expresses the domination of the country influences on performance. For example, the evacuation of resources, the labor and production cost, technological and financial infrastructure, the accessibility of the markets and organizational frame are the samples of country specific factors which specify company performance. Other strong and related factors of competitiveness which

include, competitiveness factors of the specific country can be mentioned in terms of main determinants of international competitiveness of the company. As a matter of fact, an important perspective of the universal competitiveness for a nation or country must be the company's competitive actions in comparison to other competitors of other countries. Based on these comparisons, the competitiveness is comparative concept which refers to a degree at which factors used to assess the framework could not be exerted regardless of special time or spatial condition. In a company the competitiveness level is assessed in terms of costs, market share and profitability. Usually, competitiveness is equivalent to success, therefore the performance needs to be measured in terms of a condition which a company manages the important factors success (Ferguson and Dickson, 1982). Despite of market and financial factors, the measurement of competitiveness includes factors such as innovative creations, quality and social factors such national framework labor positions and responsibility of employees. The analysis of conversion in performance of a company expresses an important problem in studies of strategic management and industrial organization level. It can be mentioned that at least two viewpoints exist related to the source of competitive advantage of the company. However, the industrial organization relies on the impacts of the characteristics of the industry on performance of a company with a specific emphasis in importance of factors such as barriers to entry and exit, focusing and scale economies. Michael Porter (1980) defined competition of industry in terms of ordinary competition in the industry, the negotiation strength of providers and buyers, new competitor threats, threat of substitute services and product, such that the improvement of an industry or company is highly depend on the strategy selection of that industry or company.

2.12.1 Organized Framework of a Company's Competitiveness

In order to develop a schematic to analyze the research, Table 2.3 will show the main ideas of competitiveness.

Table 5: Analysis of competitiveness. (Silvia Elena ISACHI)

		Dynamic	static
Nature of competitiveness	Leader	Vision based on Capabilities	Resource based vision
	Result	The trend of, market, profitability and other factors	Financial connections, market shares and other factors

Vertical extent, specifies the path which competitiveness is comprehended. Competitiveness can be realized in terms of dependent and independent variable. First approach realizes competitiveness as an essential variable of a company performance. Second approach considers competitiveness as a result of competitive advantage of a company. By all means, the discrimination can be realized as the difference between former competitiveness and the latter competitiveness. The horizontal extent differentiates competitiveness in static and dynamic analysis. The leader competitiveness comprises all the conclusions about sources of competitive advantage of a firm. The important assortment of the resource of company competitiveness is to individualize in terms of company and internal resources, country and industry factors as external resources. The internal resources can be identified in terms of tangible and intangible resources correlated to the labor or company. The intangible resources of the company composed of institutional and variation sources and also company knowledge at all. The intangible resources connected to the labor contain strategy of company, human resource, managerial capabilities, and individual knowledge.

However, intangible resources connected to the company contain physical and financial resources and operational capabilities.

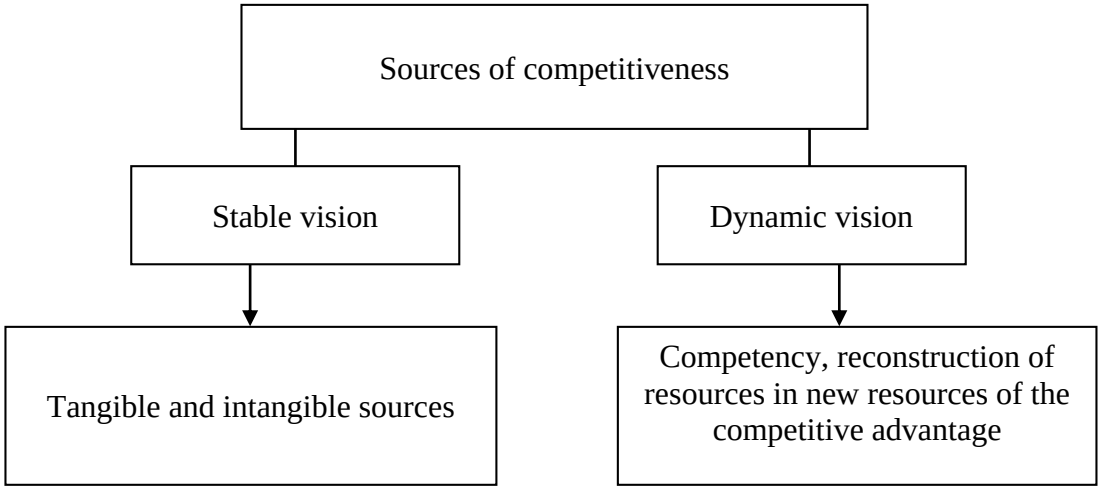

Figure 17: Sources of Company Competitiveness. (Silvia Elena ISACHI)

The internal resources of competitive advantage can be considered in terms of static and dynamic vision. The static vision considers the fundamental sources and possession of company competitiveness. And dynamic vision considers the procedure of management which converts the possessions and assets in order to achieve the required performance. Particularly, dynamic capabilities are resources which transform resources into new sources of competitive advantage in terms of assisting company reformulate their sources and produce new and innovative forms of competitive advantage (Teece, Pisano and Shuen, 1997). Differences between the static and dynamic approaches can be perceived in terms of the differences between the competitive advantage observed in company position inside the industry and the competitive advantage perceived in company capabilities and actions to work more productive compared to the competitors. The situation of a company in an industry can be defined in different ways that memorialize the connection between the company importance and main group of competitors, providers and consumers and many others

namely stakeholders and governments. For example, the precise control over the outcomes of production line or having detailed control over providers. Assets and properties such as reputation of brand and customer loyalty are related to the interchange of companies and their clients. Also, the network sources intuition within the relationship between associates and accessibility to the branches of distribution that concern the firm's situation and distributors.

2.12.2 Efficacy of Competitiveness

Economic domination or market performance, usually known as the factors of competitive advantage. Process of profit is recognized as a main index of competitive achievement. For example, the performance in short time could be measured by profitability rate. Fertility and costs can be noted as good signs of competitiveness, specifically in an industry the fertility and cost described by homogenous products. However, the rate of customer loyalty, market share, the range of distributor loyalty or employee efficiency which in this case the market share can be realized in terms of profit sacrifices by company for formulation of market share to its benefit. The indicators and factors affect this foundation differs from one company to another. In addition, the factors and indicators cannot trust on limited period of measurement that competitiveness is a time dependent construct. In fact, considering the indicators of performance, we can differentiate the past and present competitiveness, but no one can estimate whether the company will be competitive in the future. Even when the past indicates competitive advantage, it won't provide appropriate information on sustainability of past advantages. Therefore, there will be a need for using a great number of factors and indicators relevant to the anticipated competitiveness of a company.

2.12.3 Specification of International Competitiveness

International competitiveness of a company can be different global competitiveness. A firm or company can be successful and profitable in its country with high share of domestic market with low level of international competitiveness. In fact, if domestic market is preserved with barriers to the international market. Therefore, the competitiveness of company is compromised if domestic market is waiting to open for trade. Additionally, some of companies might immolate their competitiveness on internal market, for the purpose of better interpenetration on external markets. The external market share, repeatedly used as international performance measurement of company. In such measurement, the market share will not be desirable by noticeable price reduction which will result in lower profitability. In this case the foreign sale enhancement will result at the disadvantage of profitability and perspective of competitiveness. For analyzing the international competitiveness of a company, the diagnosis should be made between globalization and international competitiveness (Porter, 1990). As a matter of fact, the international competitiveness is a comprehensive foundation than the level of globalization, in foreign sale concept, could not obtain through foreign competitiveness of a firm, if obtained information cannot combined foreign development influences company productivity and other factors which drive it. Level of globalization or internationalization represents the presentment of company, but competitiveness refers to the way in which the acquired presentment is sustained. Buckley et, al. (1990) revealed international competitiveness based on three main groups which consist of: the competitiveness potential, the performance, and competitiveness management process. He added that the measurement of performance as a historical concept which categorized by their incompetency to process or provide a concept for its sustainability. On the other hand,

the market and economic performance acquired by a company in the process of globalization derived from previous selections and other inventions. Upon to this fact, it is required to consider and focus on performance and also, fertile potential of competitiveness in order to renew resources and preserve the information. Therefore, the performance is highly related to the past and present competitiveness, but the competitive potential is importantly related to the future of the company. Despite of competitive and performance potential, the company competitiveness analyzes need to realize the third group related to the management process of company such as organization of system, mechanism, and management operation. These assessments illustrate how competitive potential can convert to the positive performance. Buckley also noted that, when the statistics are illustrated the companies act better on market much better than their competitors so it will make them to produce and maintain better competitive potential. The Buckley's model had been verified by many researchers in the field of related factors of company competitiveness which has been validated and perceived by managers. According to the Buckley performance can be recognized as ex post competitiveness while competitive potential regarded as ex ante competitiveness, it means the competitive position a company might attain in the future. The relationship between competitive potential or in fact, prospective competitive situation with actual potential or competitive situation is the competitive strategy which comprised of processes, behavior, options that simplifies the evolution from potential of competitiveness to competitive positioning. The model expansion of (Buckely et al., 1990) by trusting on the distinction between ex ante and ex post competitiveness assessment, researchers should rely on the evaluation of company competitiveness based on three dimensions: Resources and the nature of competitive advantage of a company such as potential competitiveness and ex ante

competitiveness, the level of globalization that shows the company presence in global competition, the economic performance and market of the company in foreign and abroad markets such as ex post competitiveness.

2.12.4 The Relationship between Company Internationalization and Performance of the Company

Internationalization measurement and its relation with company performance are recognized as key factors in international business content. Many researchers observed the relationship between the internationalization and market performance of the company (Buckley, 1990). The internationalization has many dimensions such as measurement of foreign sales in total number of sales, also the number of employee proportion with countries the company operates. However, the foreign sale ratio to the total sale can be recognized as usual assessment of the internationalization that affects the company performance based on internationalization. Other internationalization dimensions can be noted as the geographical position, foreign production in total production procedure, foreign sources, international partners, the mergers, acquisition and financing. According to the (Hassel, 2003) the production line does not influence the internationalization, with government corporation dimensions can affect the prosper kinds of investors. Hassel introduced three main measurements of financial globalization in terms of 1: the percentage of foreign owners as the total owners. 2: the number of foreign financial exchange, expressing the alert which the company has a goal of drawing in foreign partners. 3: adopting the international accounting standard compared to the one or simple accounting standard derives from national law. Lu and Beamish (2004) revealed that, all companies confront with the weaknesses of expanding abroad, from the early steps of globalization or internationalization, when a company starts the foreign investment the range and level of profitability will

decrease but instead there is a direct relationship between foreign direct investment and high performance.

2.13 Tourism Destination Competitiveness Models (TDC)

Since the past 60 years, the hospitality industry witnessed a prosper trend with different strategies in order to became one of important industries WTO (2000). As fast-growing industry, the hospitality sector has also become a desirable business industry which contributed important economic gains to the world regions and countries (Balaguer, Cantavella-Jorda, 2002; Cardenas Garcia, Sanchez Rivero, & Pulido Fernandez, 2015; Mowforth, Munt, 2008; Tugcu, 2014). Moreover, hospitality mainly known as an important driver of poverty remission and also has critical and crucial role in regional and border variations specifically in combining in touristic destinations by increasing rate of employment and economic involvement that related to tourism. According to the (Central Intelligence Agency, 2011) the tourism industry has become famous as a driving force of income producers in countries and regions, overcoming agricultural and manufacturing industries in both developed and developing nations. Considering the enhanced competition among touristic destinations and countries, it is crucial to note that all nations, countries and specially destinations need to realize the importance of competitiveness promotions according to their capacities and increasing the quality of competitiveness. The base of tourism competitiveness is the productivity level specified by environmental factors, products, services, political issues related to the destination advantages (Cuculelli, Gofi, 2016; Koo, Shin, Gretzel, Hunter, Chung, 2016). Further, (Dupeyras, MacCalum, 2013; Dwyer, Forsyth, and Rao, 2000; Hanafiah, Hemdi, and Ahmad, 2016) stated that the competitiveness level is the fundamental component of a destination in expressing the ability of the destination in global tourism industry and market. As a matter of fact, the destination needs to remain

competitive if its main and ultimate goal is optimizing its overall capacity, also maintain and contribute to a huge and rapid growth in both domestic and global market (Hanafia, Hemdi, and Ahmad, 2016a). The ultimate meaning of competitiveness in touristic destinations is connected to destination capacity in order to prepare and provide tourism related goods and services which are perceived and considered premier in the eyes and mind of tourists and visitors compared to other destinations or competitors (Abrham, 2014: Dwyer & Kim, 2003). The services and goods which form a competitive tourism industry are highly dependent on factors such as infrastructure, business environment, laws and regulations and also resources (Jovanovic & Ilic, 2016; Khadaroo & Seetanah, 2007a; Khadaroo & Seetanah, 2007, 2008). In order to sustain competitiveness in a destination, it is important that the government increase the tourism offerings of countries by offering new products and services. Therefore, it would be an opportunity for countries and nations to empower and sustain creativity position in global environment. In fact, assessing of a country competitive position is highly dependent on the policy adoption, which is fundamentally related to resource management. Upon to this fact the Tourism Destination Competitiveness topic became important and necessary for strategical planning procedure. (Mangiion and Cooper, Cortez, Jimenez, Durbarry, 2012: Mendola and Volo, 2017). The definition of tourism destination competitiveness is evasive same as for global competitiveness that did not approve related to the definitions of Tourism Destination Competitiveness. According to the Ritchie and Crouch tourism destination competitiveness is the capability for attracting tourists while properly attract more visitors by providing memorable experiences in a profitable way, while increasing the comfort of the citizens and maintaining the nature for future generation. Hautesere (2000) defines tourism destination competitiveness as the capacity to sustain and maintain market share and

make appropriate improvement as time goes on. On the other hand, Hassan (2000) revealed that tourism destination competitiveness (TDC) is related to the destination's ability to make innovation and complement value added products and services that maintains its core resources while sustaining its position in market related to other destinations. Additionally, Dwyer and Kim (2003) introduced tourism destination competitiveness (TDC) as the related ability of a destination to satisfy visitors and tourist needs on different tourism perspectives and experiences or offering new services which accomplish positively compared to competitors on the same perspectives of hospitality which perceived to be crucial for visitors. The world economic forum also defined competitiveness in terms of organizations, factors, policies which specify the fertility a country. Tourism destination competitiveness (TDC) is known as one of the fundamental element or factors of the tourism and hospitality industry in a way that competitiveness forms an important hospitality segment and also known as an important relevance of a managing organization of a destination and policy makers. As a matter of fact, many researchers and scholars in the field of tourism applied the theory of competitiveness for the purpose of completing policy making process in developing, managing of destination and also strategies (Buhalis and Spada, 2000; Crouch and Ritchie, 1999; Dwyer, Kim, 2003; Gooroochurn and Sugiyarto, 2005; Hassan, 2000; Heath, 2003; Kozak, Rimmington, 1999; Mazanec et al., 2007). Basically, according to the various researchers and scholars Tourism Destination Competitiveness is identified as capability of specific country to innovate, synthesize valued goods and services within tourism sources with sustaining a premier position related to the competitors. At the mean time other scholars claimed that, Tourism Destination Competitiveness TDC is an evasive as the look for global description of competitiveness which generally has not been approved

definition (Hanafiah et al, 2016; Koo et al., 2016; Mazanec et al., 2007; Mendola and Volo, 2017; Rainer and Kazem, 1994). Different tourism destination competitiveness figures had been identified to evaluate competitiveness. Scholars employed general models identified via Porter (1990) in hospitality concept. Related hospitality researchers identified different works which explains tourism competitiveness, with limited numbers who focused on developing Tourism Destination Competitiveness model (Dwyer and Kim, 2003, Gooroochurn and Sugiyarto, 2005, Ritchie, Crouch, 1993). However, the study will review Tourism Destination Model proposed by Porter (1990), Ritchie, Crouch (1993), Dwyer, Kim (2003), Heath (2003) and Gooroochurn, Sugiyarto (2005). Important criteria with factors and elements of competitiveness are categorized.

2.13.1 Porter's Model

The dimensions which can be categorized based on researches on competitiveness are Economic the management schools of thoughts (Habershon and Williams, 1999). Theory of conceptual competitiveness of Porter (1990) focused on creation of main constituents in deployment and efficient usage of present sources. Therefore, Ricardian ignored Porter (1990) the new universal strategy for competitive advantage idea of the region competitiveness and focused only on the comparative theory which has attached within principles of cost that determines circulation of products that illustrates the reserve alteration between regions. The source of Ricardian theory branches from the global trade figure, but the base of Porter's model was theory of management. Additionally, Porter (1990) improved framework for competitiveness model focusing on country fertility. The advantages of country model assess the frame and meaning competitiveness to demonstrate the advantage of nations based on the determinants of international environment. Theory of porter implies that the country competitiveness

derives from micro level which refers to private firms. According to Porter, productivity is a key frame of competitiveness at the domestic and global level. Increased standards of living highly dependent on the potential of a country's companies to accomplish the desired level of beneficiary and to empower their fertility in future. In a country all of the companies must have the capacity of productivity improvement in their industries increasing quality of products, value added features, improvement in product technology and also increasing the efficiency of production (Porter, 1996). According to the porter the wealth and well-being of the nation is also the main determinant of the sustainability of organizations. He also clarifies activity of firms and looking for success in global market and industries and components of universal achievements in promotion of prosperity. The model of porter which is identified as the diamond model comprises four main factors which porter offer to promote the advantage of the firm's operation of any country (Porter, 1990). Figure 2.3 demonstrates diamond model. The main elements of Porter's competitive model comprised of 1: factors of conditions 2: the demand conditioning 3: supporting with relative industries 4: the strategies of companies, rivalry, and structure. Factors of conditions comprised of sources which can be gifted such as agricultural, mineral resources, conversion of forestry to mineral resources, forestry, fishery and environmental resources or includes innovative factors, the contribution of the population or community to the manufactures like infrastructure, labor skills required for creating competition in an industry. The company important sources contain sensible wealth of physical, financial facilities, resources, and intangibles which include skills, reputation, goodwill of the group, and brand name (Barney, 1991, Grant, 1991, Porter, 2008).

The demand condition corresponds to the domestic market size that is responsible for the minimum economies of scale of firm's activity that also makes them to profit a constant demand of market. The market benefits of competitiveness are results of goods and service quality. The quality expectations of customers for developments act as stimulus of business for empowering their competitiveness (Porter, 2008, Porter, Ketels, and Delgado, 2007). The idea that consumers have difficult and sophisticated notions and standards for product qualities while having a high level of consumerism, the business sector have desire to empower competitive in order to satisfy the important requirement of consumer.

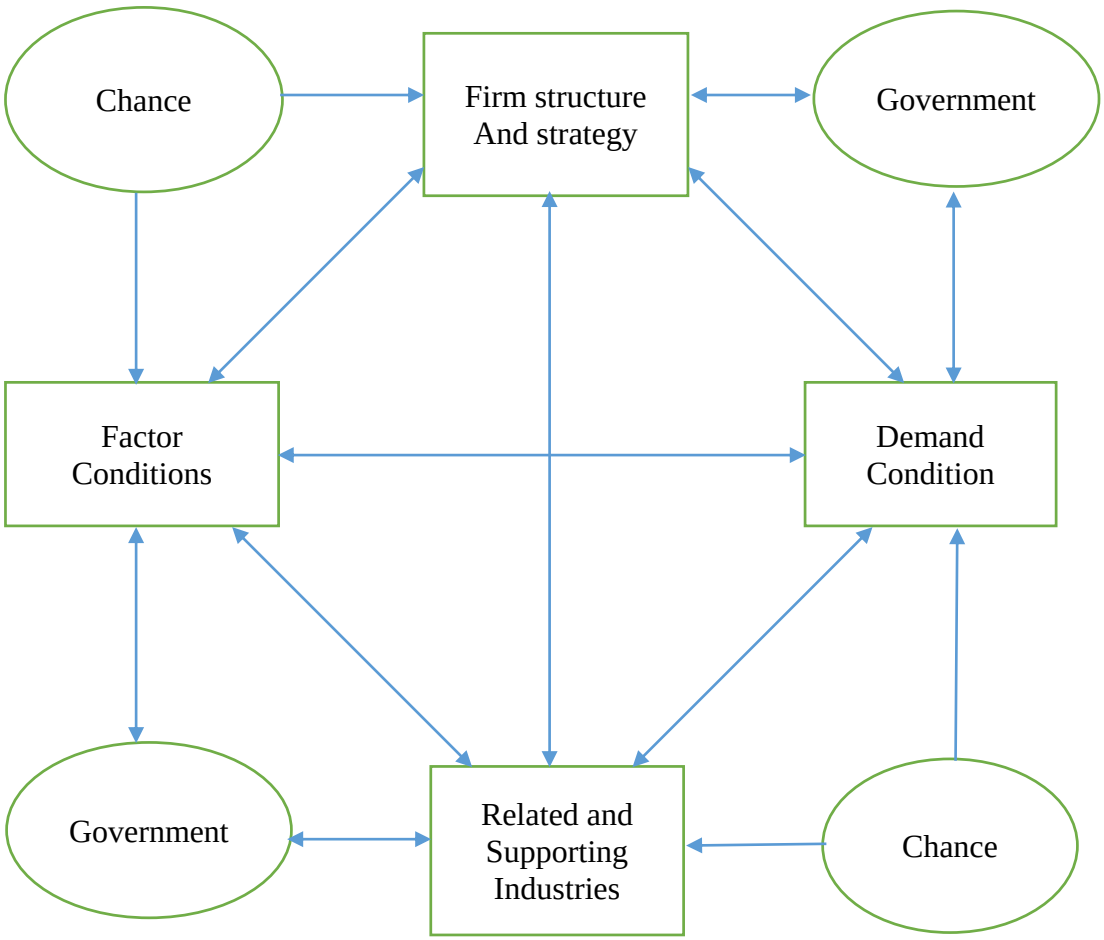

Figure 18: Porter's Model. (Hanafia, Zulkifly, 2019)

Porter in 2008 stated the supporting and related companies consist of absence and presence of a population of suppliers and also relative companies which compete globally. The most of business concepts offer the different network correlations simplifies the development of international market for service companies and also include small companies (Edvardsson, Edvinsson, and Nystrom, 1993; Edvardsson, Edvinsson, and Nystrom, 2012, Roberts, 1999). Ford, Leonidu (2013) revealed that the strategic alliances can lead to strategic networks which will create correlations with organizations and restore competing process. Strategical cooperation outcome would be cost deduction plus improved fertility. Additionally, the relative companies could be categorized both in vertical and horizontal version. Vertical market comprises the companies that share same industry which compete with each other, vertical markets are responsible for organizing business related on system and specific requirements. Horizontal relative companies comprise the businesses which use the same technologies, distribution network, raw materials and also marketing activities. The supporting industries include, information, financial, insurance, transportation. Finally, the firm's structure, strategy and rivalry correspond to situation in population which rule the competition position and effect the way of company creations, managing and organizing system. Porter (1988) suggested that, sustainability has been made both based advantages of costs of a firm or differentiation, correlating the company's valency added activity to input seller and output buyer. Moreover, Porter argues that the cost advantages of a company are intrinsically considered as less sustainable compared to the other advantages related to differentiating on both company and international market. Additionally, the priority will be given to a company's capacity for constantly making improvements about growth (Porter, 1990). However, the diamond model of Michael Porter has received several supports from

different researcher. First of all, the Porter model had been considered to be a most successful and also influential method related to local improvements. Porter (1990) study and theories was supported and acclaimed for proposition of extensive conceptual frame which supplemented competitiveness strategy and national economy in order for describing the competing advantages of countries (Grant, 1991). In fact, contribution of the Porter's model is highly related on the reality, it surrounds the company or company specific, and also nation special factors and variables. With proposing the frame of an industry to structure, porter accomplished the micro with macro landscape competitiveness in unique structure. The diamond structure Porter concluded specifically to the competing framework with proposing an extensive realization in regional plus national competitive outlook and via enlarging industry clusters. Many of scholars and researchers have comprehended the porter model substantially that has made the industry competitiveness to become realized research issue for tourism politicians. Importantly, model itself were used in various researches of different systems (Crocombe, Enright, Porter, Caughey, 1991, Davies and Ellis, 2000; Echtner and Ritchie, 1993, Moon, 2000, Ritchie and Crouch, 1993, Smit, 2010). However, porter model had been criticized by many researchers that it possesses some limitations (Martin and Sunley, 2003; Oz, 2002 Smit, 2010). According to the (Martin and Sunley, 2003; Oz, 2002, Smit, 2010) the model seems to be more applicable for political issues compared to creating a framework. Moreover, the porter's diamond model is most likely designed and developed for developed nations and countries of the world, which lacks the consideration of developing countries or nations. For example, some scholars reveal that the model is appropriate for developed economies compared to the developing economies. On the other hand, the model failed realize the dynamical features in internationalization, forces in foreign investment which are the

most important factors that meet the future requirements (Chang and Rugman, Verbeke, 1998, Dunning, 1993). Additionally, the porter model did not consider the effects of macro environment to national competitiveness. As a matter of fact, the model does not try to review the tourism industry, only tourism researchers later implied the model to the tourism researches and studies (Poon, 1993). Finally, the model provides bias in order to make suitable political contributions. In addition to its potential of leading role in policy making process and socio-economic development, limited number of tourism scholars adopted the model into tourism studies (Dwyer, Kim, 2003, Ritchie, Crouch, 1993). Importantly, most studies of hospitality conducted the framework of porter for regional strategy development in evaluation of strength and weakness of a special destination (Lechner, Dowling, 2003).

2.13.2 Ritchie and Crouch's Model

Ritchie and Crouch (1993) used model of porter and developed tourism competitiveness in any destination. After a reviewing model of porter, they created the Calgary structure. The model identified abundant number of determinants by making an integration of consumer and industry based on both subjective and objective measurements. The Calgary model identifies 5 important branches of destination competitiveness which composed of, management of destination, destination organization, destination information and efficiency. Ritchie and Crouch (1993) developed a competitiveness frame which encompasses powerful constraints of competing process. Ritchie and Crouch expanded Chon and Weaver, Kim (1991) research, that offered the tourism destination competitiveness model as a best observer of destination socioeconomic prosperity. Additionally, they revealed that destination is competitive when contributes to economy, social, cultural and also wellness of political. Ritchie, Crouch (1993) important contributed part is the reality that study

confirmed the origin model of competitiveness proposed via Porter (1990) could be used in hospitality concept. Additionally, the model of Ritchie and Crouch integrated the competitive and comparative advantage that in fact perceived as preferable and correlated frame in porter (1993). Ritchie and Crouch identifies the comparative advantages as reliable hospitality sources when the competitive advantage comprises ability of the country to use the sources efficiently. Meanwhile, the model of Calgary complements significant competitive with comparative factors which are crucial for competitiveness of a destination which motives the factors determine wellness of a country (Buhalis, Spada, 2000). Making an introduction for these constraints will lead to developing compound tourism destination competitiveness index and also a formative tool to make a measurement of performance of tourism destination. According to the Calgary model it can be contributed that competing among touristic destination is related on different comparative and competitive factors, moreover, a competitiveness in any destination concludes to well-being of the residents. Upon to this fact, in order to maximize the destination competitiveness in tourism and hospitality industry and market, it is highly crucial to note that these factors are significantly depend on the destination capability to organize the source usage efficiently. Figure 16 represents the model of competitiveness which incorporates 36 determinants of tourism destination competitiveness introduced and defined by five important components which consist of:

1: supporting resources and factors which include (accessibility, infrastructure, simplifying resources, hospitality, and enterprise.

2: core and important resources and touristic attractors such as (history and culture, physiographic, market bounds, tourism and, events, entertaining).

3: management such as (advertisement, financial factors, resource supervision,

venture, organization, given service, visitor management).

4: political factors, planning, development of destination with specific social, or other factors or goals.

5: qualification of determinants (interdependencies, location, security, safety, image, brand, awareness, value).

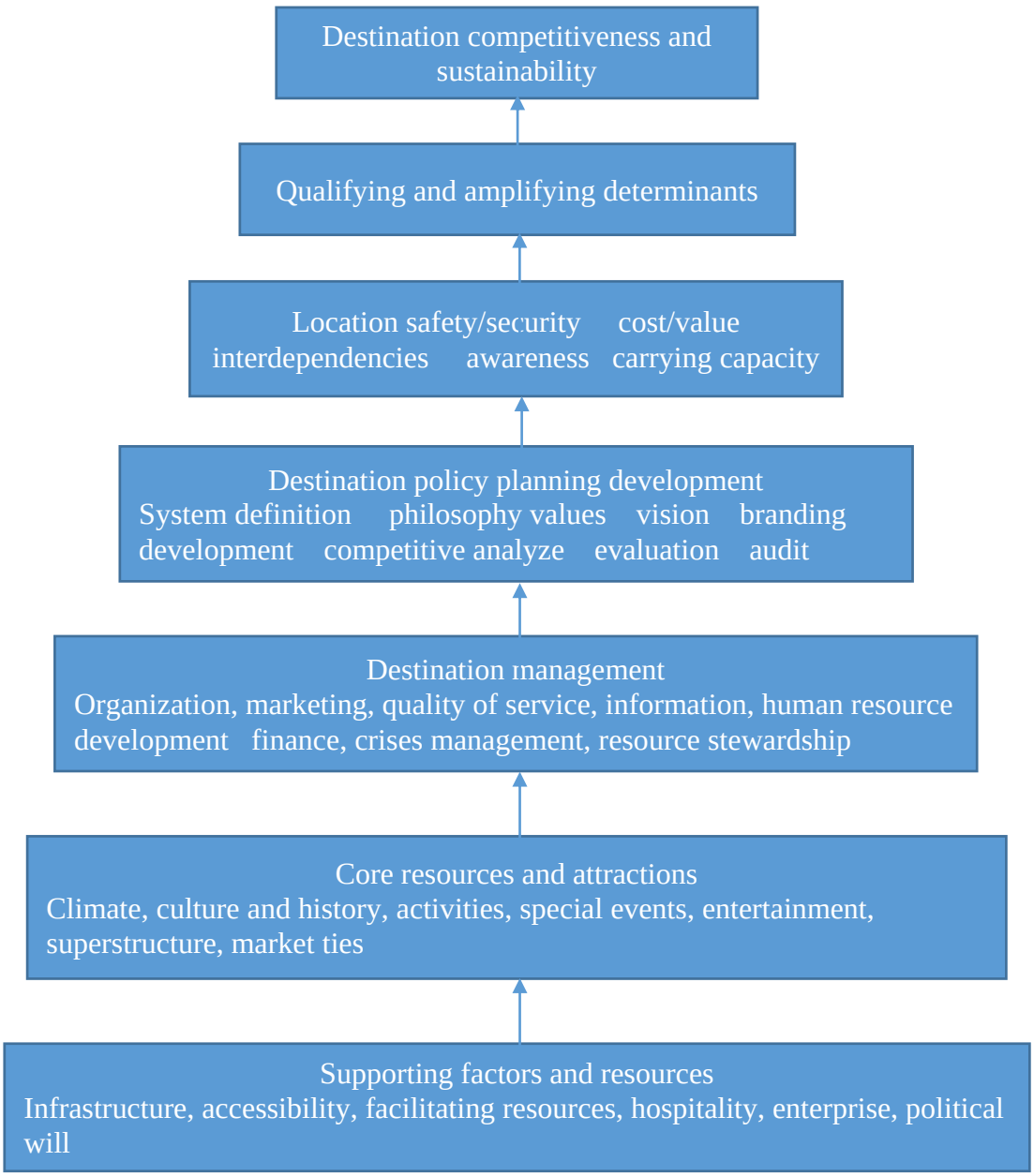

Figure 19: Destination Competitiveness and Sustainability. (Hanafia, Zulkifly, 2019)

Contriving the Porter's model (1990), the model comprises macro and micro environment elements. Micro environment incorporates innovated and available factors and elements of competitive environment and assessment of the visitors or tourist behavior and also potential tourists that the destination looks for. Macro elements comprised of global variables which impact socio economic activities and well-being. Both macro, micro environment however, affect the competitiveness of the destination. The model in fact constitutes the competitive and comparative advantage determinants. The comparative advantage determinants comprised of endowments of natural sources, and also the resources that the destination has possessed over the time such as human resource, knowledge and physical resources, capital sources, tourism superstructure and infrastructure, size of the destination's economy and finally the cultural and historical sources. Additionally, the determinants of competitive advantage include the power and strength of the country which are the outcome of efficient source extension such as, maintenance, inventory, development, growth, effectiveness and efficiency. The Calgary model incorporates different purification by other scholars of tourism sector and its being evaluated, empowered and quarreled. For instance, Kim (2012) has criticized the model for lack of environmental factors on competitiveness of a destination. Heath (2003) also argued that the model the same factors of ignorance on environmental factors and its effects on competitiveness. Moreover, scholars stated, the Calgary model of Ritchie and Crouch focused on tourism model which appeared to become basically effective in developed nations rather that considering the developing regions and nations. On the other hand, Kim (2003) expressed that, Calgary model was not effective enough tourism destination competitiveness accountability, they added, the model tried to focus on tourism supplying factors instead of considering the demand factors.

Particularly, Kim and Dwyer (2003) accepted Calgary model while proposing a different approach in order to identify indicators of tourism destination competitiveness (TDC). In the next part of the study the Dwyer and Kim (2003) model and framework will be discussed.

2.13.3 Model of Dwyer and Kim

Dwyer and Kim (2003) created integration model of competitiveness derived from competitiveness that integrated the factors of Porter together with Ritchie and Crouch. Particularly, their integrated model approves Ritchie and Crouch framework which was proposed in 1993 with some sets of adjustments with corporation of additional determinants of tourism destination competitiveness (Dwyer, Mellor, Livaic, Edwards, & Kim, 2004). The Integrated Model comprises factors of company competitiveness as suggested by Porter (Dwyer, Kim, 2003; Gomezelj and Mihalic, 2008, Porter, 1998) with corporation of Calagry model (Crouch, Ritchie, 1995; Crouch and Ritchie, 1999 Dwyer et al., 2000, Dwyer, Forsyth Rao, 2002; Hassan, 2000; Ritchie, Crouch, 2003).

The Integrated Model is shown in figure 2.5 with combination of domestic and competitiveness of company factors with tourism destination competitiveness factors. Six crucial components introduced by the Integrated Model which include: 1: main sources (created with endowed sources. 2: supportive sources with factors such as (common infrastructure, service quality and accessibility). 3: factors of destination management (function and activity). 4: demand condition (preferences, perception and awareness. 5: occasional factors (social, cultural, economic, demographic, and environmental, political factors) 6: indicators of performance in market. Dwyer, Kim (2003) figure specifically expressed more correlations between different factors of tourism destination competitiveness in comparison to the Calgary model.

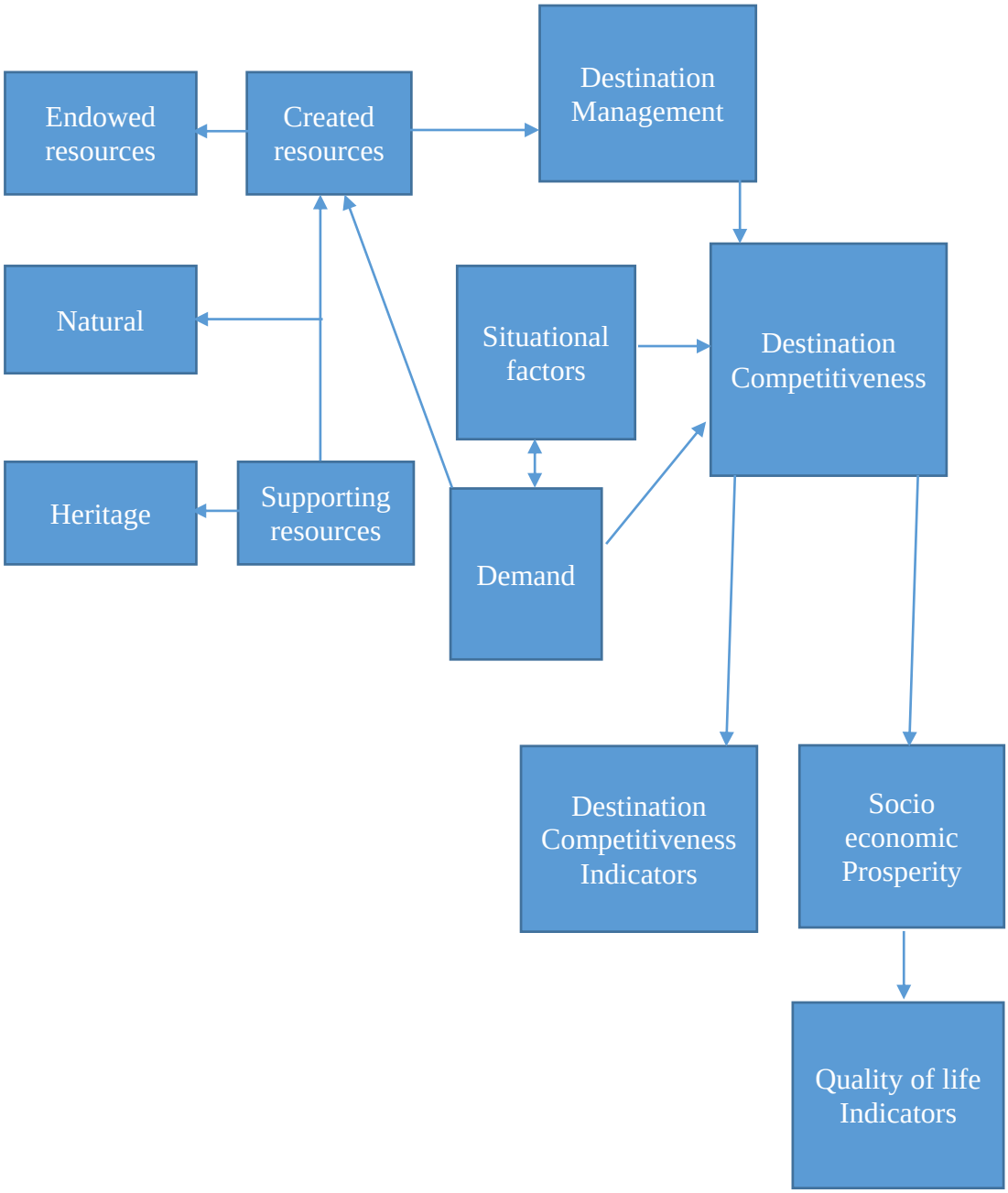

Figure 20: Integrated Model of Dwyer and Kim. (Hanafia and Zulkifly, 2019)

Table 6: The Differences of Calgary Model and Integrated Model. (Ritchie & Crouch, 1993) and (Dwyer & Kim, 2003)

Calgary model of Ritchie and Crouch (1993)	Integrated model of Dwyer and Kim (2003)
Attractors and core resources: tourism superstructure, special events, cultural factors, climate	Endowed resource: natural and cultural resources, mountains, meal, landscape Innovated resources: events, shopping, tourism infrastructure
Resources and supporting factors: accessibility and infrastructure	Supporting factors: hospitality, accessibility, infrastructure, quality of service
Destination management: service quality, safety, marketing strategy	Destination management: human resources, safety, marketing strategy
Policy of destination, development, planning, positioning, development	Occasional factors: industry structure, world economic situation and crime
Amplifying and qualifying factors: the government fiscal policy, exchange rates that can influence negative impacts	Demand factors: awareness, tourist and visitor preference, image and perception

Table shows the differences between two approaches. Based on the comparison, Dwyer, Kim distinguishes among natural with created sources, while Ritchie did not consider in their model. Moreover, the Integrated Model introduces the demand conditions as crucial constraints of tourism destination competitiveness which correlates with the perception that the competitive destination needs to enhance its tourism demand by improvement of tourism products (Heath, 2003). The Calgary model of Ritchie and Crouch (1993) also, ignores the demand condition of competitiveness determinants by considering only supplying conditions which cause the incomplete realization of competing in destination (Gomezelj, Mihalic, 2008). Additionally, integrated model did not corporates discrete factors of policy of improvements but in fact, classifies two of them together with destination management

incorporator. Finally, they consider both infrastructures and common infrastructure of tourism as different functions. An important difference between the two models implies that, the Calgary model is linear and suggests interdependency among various group of factors. On the other hand, the Integrated Model assumes mutual relationship among individual factors. Other scholars later criticized the Ritchie and Crouch and Dwyer and Kim's Calgary model seems to offer pure and definition and identification for Tourism Destination Competitiveness, rather they could evaluate the cause-effect correlations. As a matter of fact, the Integrated Model (IT) uses the prosperity of socioeconomic as a result and outcome of Tourism Destination Competitiveness by pointing out the common relationship between two components. The comparison between the two approaches one can assume that, the Integrated Model of Dwyer and Kim (2003) suggests an important contribution to theoretical constructs of the Tourism Destination Competitiveness framework, which also serves as well- manufactured foundation for measurement and conceptualizing the tourism destination competitiveness in future.

The IM model of Dwyer and Kim (2003) also simplifies the comparative analyses by emphasizing the objective and subjective measurements of competing process and also model highlights the advantages of understanding the indicators of Tourism Destination Competitiveness. Additionally, Calgary model could undertake for comparing performance level of various countries. Upon to this fact, the Integrated Model (IM) acts as a foundation for empirical and conceptual research that focuses on the factor of demands and appropriate competing measurement to identify performance.

2.13.4 Heath's Model

Heath (2003) suggested other tourism destination model (TDC) with name of sustainable destination model. Similar to other models, Heath adopts the Porter (1990) model and principals constraint Ritchie and Crouch model, and also Dwyer and Kim (2003) model. Heath determined that other TDC model recognized as a generic model that did not combine and corporate the different subjects surrounded by the competitiveness concept with limited stress on key and critical drivers such as people and the core relationships such as information, communication managing system which required to be considered in extensive framework development of sustainable destination competitiveness. The TDC model of Heath suggests a foundation for competitiveness in the structure of building a house paradigm. He considers as a house structure that requires core and key factors in the form of: 1: foundation which prepares the base and infrastructure for competing. 2: the block which required for preparation in order to make tourism prosper in a specific destination. 3: the roof of the house which acts as a key and important factor or success driver that encompasses people as an important part of the destination competitiveness. The foundation in majority comprises key attractors, enablers and non –negotiable, value added, simplifiers, experienced enhancers. All these factors are the core competencies of the tourism industry attractors and also, supporting factors founded by Ritchie and Crouch model in 1993. However, correlation via Ritchie and Crouch model (1993), he, realizes leading, value of guidance of people are considered to be success drivers of the destination in order to lead the competitiveness which acts as the roof of the paradigm. The shareholders, stakeholders and the builders that possess important role, in cooperation and collaboration in strategic concept in order to achieve or access the genera goal of tourism prosperity. The policy development, structure, strategy and

conceptual framework of marketing that considered as the building blocks require sufficient and efficient integration. The structure or the cement of the building is restored by simplifying the flexible communicating system with shareholders, stakeholders, providing balance in different desires and interests, information management for decision making process and determination of sufficient measurement of competitiveness heath (2003).

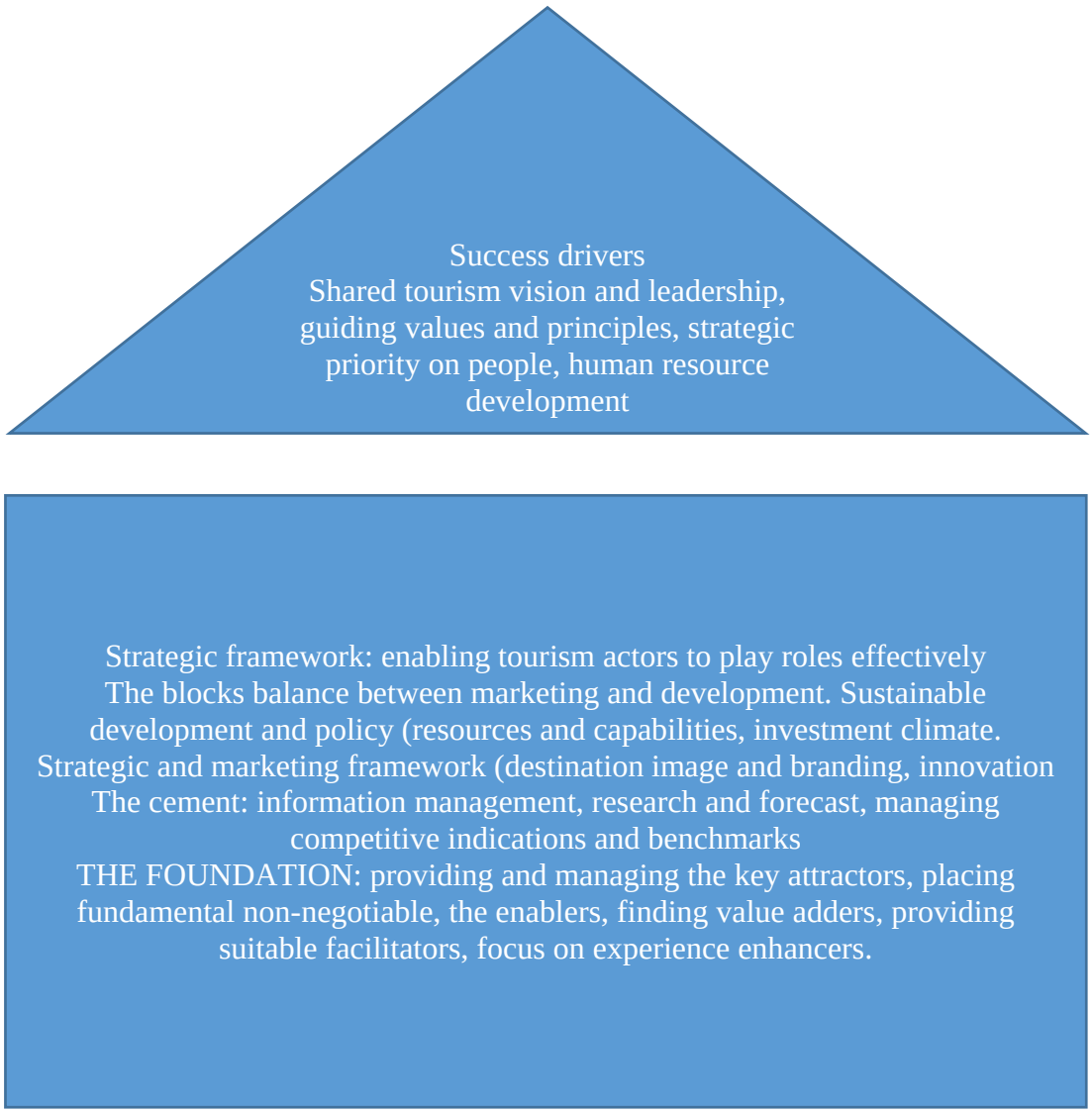

Figure 21: Strategic Responsiveness to Change in the Macro Competitive and Market Environments. (Heath, 2003)

The TDC model of Heath is affected by marketing, planning, and complementation priorities for prospering the industry. Structure also expands relevant general Tourism Destination Competitiveness formulas by stressing human resource improvements, managing communication and information system which the Heath expresses much attention to them. In fact, general house building model with its feature make the model more reliable and interesting, but also in addition it possesses some limitations such as the process of competing, also correlations between factors that form the frame are not clarified.

2.13.5 Model of Gooroochurn and Sugiyarto

Gooroochurn and Sugiyarto (2005) designed competitiveness monitor (CM) model with 23 variables of destination competitiveness determination. The (CM) was basically based on Ritchie and Crouch (1993) model that was operated upon secondary data collected from the world travel and tourism Council database which comprises 54 variables consist of principals and general and composite variables including the competitiveness index which consist of approximately 200 countries. However, the Competitiveness Monitor index recognized using the confirmatory factor analyses (CFA) which also companied within homogenous section related to performance level of each destination. The Competitiveness Monitor model consist of eight factors (variables) composed of technology, openness, price, human resource, infrastructure, environment and social improvements. Weights of each factor derived with utilization of CFA for the purpose of ranking the destinations related to their performance with a particular correlation between the basic factor (indicator) and the introduced factor (variable). This perspective was related to the Ritchie and Crouch's Calgary model which proposed in 1993, that the model assumed general relationship between competitiveness measures (Crouch, 2007, Mazanec and Ring, 2011, Perna, Custodio,

Oliveira, 2018). As a matter of fact, the World Economic Forum (2007) realizing the gap and the important role of the tourism in economic prosperity, that was particularly suggesting reports regarding competitiveness related to a particular sector using Competitiveness Monitor (CM) model (Mazanec & Ring, 2011).

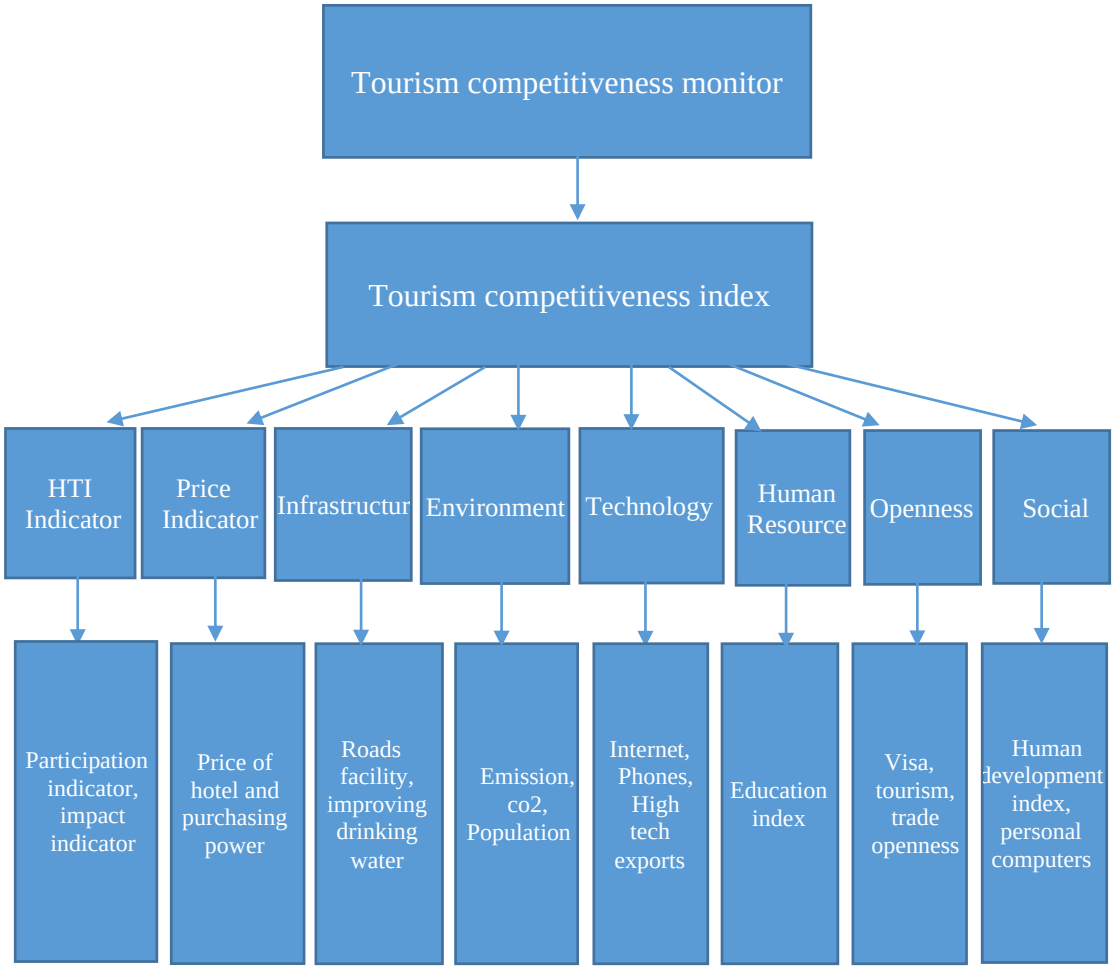

Figure 22: Tourism Competitiveness Monitoring Model. (Hanafia, & Zulkifly, 2019)

Gooroochurn and Sugiyarto (2005) competitiveness monitor model cleared the way constructing the compound index for Tourism Destination Competitiveness, that is identified as travel and tourism competitiveness index which range 124 nations related to the criteria based on thirteen pillars (drivers) which have made of different and several factors and variables that were converted to three unweighted indices which namely include, travel and regulatory framework, travel and tourism business

environment infrastructure, travel and tourism cultural, human, and natural resources. The cm model received polemical results. Considering its endeavors for quantifying a country's competing potential, the index assumed that usage of 57 variables or indicators in calculations are precisely crucial (Dwyer, 2011, Kayar and Kozak, 2010). The model of Competitiveness Monitor model noticeably changed the ranking of the countries in year adjustments with calculation of variables as clear average. Vinzi, Asaker, and Oconor (2011) in the effort of advancing the Gooroochurn and Sugiyarto study, derived 17 of original variables of 23 Competitiveness Monitor indicators into 4 factors which included: economy, infrastructure, tourism and environmental demand. The results depicted that the model could not reduplicated through group of countries. Other scholars revealed that the Competitiveness Monitor model ignored the importance of the size of the market, economic situation and condition of the country and also the dependency degree on hospitality in destination competitive region.

2.14 The Travel and Tourism Competitiveness Index (2019) Framework

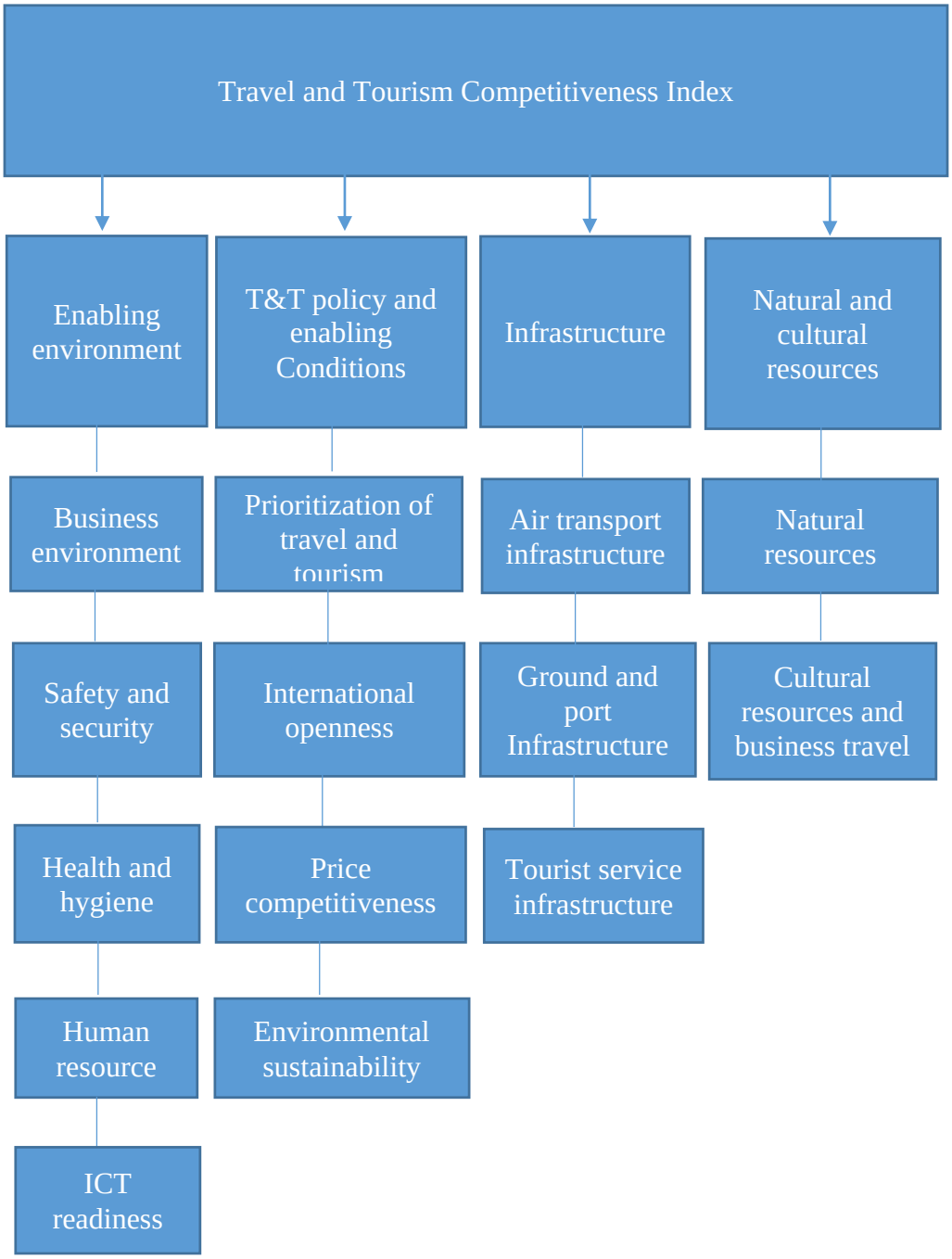

Figure 23: The Travel and Tourism Competitiveness Index. (Travel and Tourism Competitiveness Index, 2019)

The enabling environment sub index obtains general conditions required for country operational procedure that consist of 5 pillars:

1. Business environment (12 indicators): includes the degree at which a country possesses a political surrounding suitable for all companies to conduct their business. Many researchers have found positive and significant relationships between economic growth and steps of property rights and legal framework efficiency. At the same time, falsification in competition and taxation procedure both in domestic and international competition measurement based on foreign direct investment (FDI) simplification which effects productivity and efficiency of a country or region. All business sectors will be influenced by all these factors such as Travel and Tourism. Additionally, it captures the cost and time importance to constructive permits which is specifically related topic for Travel and Tourism development.

2. Safety and security (5 indicators): security and safety as important factors determine the competitiveness of a country's travel and tourism. Visitors and tourists are most likely to be prevented of dangerous and risky destinations and risky countries because of being less attractive in order to develop Travel and Tourism sector in such places. For example, by taking into account of general insecure conditions and general crime and terrorism, the importance of police services that can be relied in order to provide appropriate protection from such cases.

3. Health and hygiene (6 indicators): hygiene and health are also crucial for Travel and Tourism development and competitiveness. Accessible pure drinking water, sanitation is such a important factor for health and comfort of visitors and tourists. In case of tourist illness, the destination or country's appropriate health system and sector must be available and able to assure the visitors that are additionally cared for which is scaled and measured by physician availability and accessibility of hospital beds. In addition to this, considering the propagation of HIV, MALARIA, could have effects on Travel and Tourism competitiveness human force and have a role in

discouragement or prevention of tourists from a country visiting program.

4. Human resource and labor market (9 indicators): well-being and quality of human resources in a nation's economy assures the accessibility of that nation or country to the required collaborators. The components of this pillar assess the skill development of the country via education and training in order to increase the allocation procedure by efficient labor force. The previous factors were considering the formal education procedure and private sector contention to maintain human resource updated. Factors such as: the investment in training service and customer care. The latter corporates measurement of flexibility, efficiency, and openness of labor market, also another important factor can be mentioned in terms of women participation for the purpose of assessment of depth of a country's talent conditions and additionally the ability of human resource allocation for best use.

5. ICT readiness (8 indicators): such as business operations, online services have additional importance in Travel and Tourism with internet usage and quality for travelling and ticket booking and accommodation reservation procedure. In fact, the ICT is now universal and important for all sectors, which is considered as a part of enabling environment. This pillar's components measure the presence of hard and modern infrastructure such as mobile network cover and electricity supply and the business capacity and individuals to use and provide online services.

The Travel and Tourism enabling environment: which comprised of particular policies and strategic aspects which affect the Travel and Tourism sector more straightly that includes 4 pillars.

6. Prioritization of Travel and Tourism (6 indicators): the travel and tourism prioritization by government will have crucial importance on this sector's competitiveness. As an important factor, the government can provide financial

facilities project developments and providing the related actors and required resources for sector general developments. Alerting the political stability of the government can have impact in private investment attractions. The government also can play major role in tourist attraction campaigns. This pillar corporates, the government spending, marketing campaigns impacts and country branding. Moreover, the appropriate timeline of Travel and Tourism data international organization which indicates the importance of the Travel and Tourism sector in government's priorities.

7. International openness (3 indicators): in order to develop a travel and tourism competitiveness internationally, the sector needs the exact degree of openness and travel facilities. Limitations such as policies which involves the requirements for visa preparations will cause decrease in tourist will to visit a country that will additionally affect the reduce of key service availability, main components measured in this pillar are mutual agreements based on air services that will impact the air connectivity of countries with each other and also the agreements of regional trade in force of countries which will increase the capacity to provide the world class of tourism service.

8. Price competitiveness (4 indicators): low costs of travel to a country will enhance the attractiveness for many travelers and visitors as for Travel and Tourism investment procedure. The important factor among all other aspects such as price competitiveness considered in this pillar are ticket taxes and charges of airports that can cause flight tickets much more expensive, other costs included are hotel prices, the living costs, fuel prices which influence the travel costs.

9. Environmental sustainability (10 indicators): the natural environment is an important for preparation of an attractive location cannot be underestimated. Upon to this fact, the policies and factors increasing the environmental sustainability considered as crucial competitive advantage in assuring a country's attractiveness as a

destination in future. As a matter of fact, this pillar comprises policy factors such as austerity, implementation of government regulations such as considering environmental factors and also factors and variables considering the status and position of water, forest resources, and life of marine related to fish stocks.

The **infrastructure** sub index contains the quality and availability of physical infrastructure of each economy which include 3 pillars:

10. Air transport infrastructure (6 indicators): air connections are important for travelers in order to have an easy access to different countries, which is comprises the movement between and in many countries. This pillar measures the quantity of air transport by usage of indicators such as availability of seat kilometers, the departures, airport compression and number of operating airlines. This pillar also considers the airport transportation infrastructure for both domestic and international flights.

11. Ground and port infrastructure (7 indicators): the accessibility of prosper and available transportation for important business places and centers and also, tourist attractions is a key and crucial factor for the Travel and tourism sector. In fact, this facility require a comprehensive railroad and road construction, representative by railroad and road compression with railroads, roads, and also port infrastructure which meet the international standards of security, comfort, and postural proficiency. The pillar at the same time considers the unpaved roads that enable local connectivity, also to some degree, can represents the presence of exquisite roads that could in particular contents, attract visitors and tourists.

12. Tourist service infrastructure (4 indicators): factors such as accommodation with appropriate quality available, entertainment facilities, resorts, holiday places, can proxy an important competitive advantage for a country. The level of tourism and hospitality services must be infrastructure via the number of hotel rooms

complemented via the degree of accessibility to services such as different international Bank ATM'S and car rental companies.

The **natural and cultural resources** sub index obtains the significant issue of reason to travel which comprises 2 pillars.

13. Natural resources (5 indicators): natural resources in every country can be the main and important sources of tourist attractions. This pillar includes measurement of different numbers of attractiveness such as UNESCO world heritage sites, measurement of quality of natural environments that represents the beautifulness of the perspective, the fauna richness in a country is a measurement of total number and known species of different animals, and the protected areas percentage by national agents that expresses the expanse of nature preserve and national parks.

14. Cultural resources and business travel (5 indicators): cultural resources in any country accounted for important and critical drivers of Travel and Tourism competitiveness. This pillar includes UNESCO's sites of cultural world heritage, the large stadiums which can host specific sports and entertainment events and festivals and also new measurement of digital demand cultural and entertainment, number of online searches relevance to the country's cultural sources can enable and increase the degree of interests to be derived. Additionally, the number of international associative meetings conducted in a country is also concluded to obtain, and business travel and trip at its least or average degree. Tourism has been one of the critical sectors of the economy for several countries across the world. Therefore, there is a proliferation of studies on tourism competitiveness. Most studies in the tourism literature are focused on the determinants of tourism competitiveness and few of them considered the drivers of tourism performance (Croes and Kubichova, 2013; Webster and Ivanov (2013), Marti and Puertas (2016), Hanafiah, et al., 2016; Martins, et al, 2017; Hanafiah and

Zulkifly 2019; Shafiullah, et al, 2019; Dogru, et al., 2019; Önder and Smeral, 2019; Rossello´-Nadal and HE, 2020; Takahashi, 2020). There is little or no attention to the impact of the tourism competitiveness on tourism performance across the world. To fill this research gap, the literature review in this study considered the strands of theoretical and empirical literature on the drivers of both tourism competitiveness and tourism performance. The conceptualization of tourism destination competitiveness has been contentious because the concept is complex, multidimensional and difficult to measure (Crouch and Ritchie, 1999; Dwyer and Kim, 2003; Crouch, 2011; Abreu-Novais, Ruhanen and Arcodia, 2018). Thus, it is difficult to identify a universally acceptable definition of tourism competitiveness. Nevertheless, some popular and comprehensive conceptual definitions are often adopted (see Richie and Crouch, 1993; MaCallum, 2013; Abreu-Novais et al., 2018). In line with the conceptualization, models were developed based on Michael Porter's Diamond Model also known as Theory of National Competitive Advantage of Industries (see Porter, 1990). The models compare competitive advantages in resource endowment of the tourism destinations and observed that global and competitive micro environment significantly affect the attractiveness of tourism destination (see Ritchie and Crouch, 1993; Crouch and Ritchie, 1994, 1999; Crouch, Ritchie and Hudson, 2001). Ritchie and Crouch (1993) posit that four categories of factors, namely, core resources and attractors, supporting factors and resources, destination policy, planning and development, and destination management are determining factors shaping the visitors' choice of tourism destination. The core resources and attractors constitute the key motives that urge visitors to choose a destination or another. Supporting factors and resources encompass facilities that support the development of the tourism industry. This includes infrastructure, lodging, services, accessibility, etc. Subsequently, Dwyer and Kim

(2003) and Dwyer et al (2004) developed the integrated model of destination competitiveness, which expanded the Ritchie and Crouch (1993) TDC model to include indicators mainly classified into seven groups; endowed resources, created resources; destination management, demand factors, market performance indicators, situational factors and supporting factors. Moreover, Heat (2003) developed TDC models, which follows a house-like structure with four vital elements — "Foundation, Cement, Building Blocks and Roof". The 'foundation' symbolizes factors such as culture, history, climate, security and health, transportation and communication infrastructure, business environment, location and value added of destination, services and equipment for visitors. The 'Cement' includes factors that enable the connection of the diverse dimensions of tourism competitiveness. These factors include transparency and flexibility of communication channels, creation of avenues for corroboration, provision of information, stakeholders' relationship, studies and planning among other factors. The 'Building Blocks' comprises the global strategic marketing management and sustainable development policies, which are the fundamental pillars of the tourism development of a destination. Finally, Heat (2003) describes the 'Roof' as the shared strategic vision for the development of the tourism industry in a destination. In addition to the models discussed, several studies equally contribute to the conceptualization and theorization of the TDC in recent times (see Cvelbar, Dwyer and Mihalic, 2016; Andrades-Caldito, Sanchez-Rivero and Pulido-Fernandez, 2014; Goffi, 2013). Following the development of conceptual and theoretical models of TDC, several empirical studies were carried focusing on the measurement of the various indicators and assessment of their effect on the TDC. Assaker et al (2014) examined the relationship between tourism competitiveness and the economy, natural environment, and infrastructure for a cross-sectional sample of

154 countries using Partial Least Square Path Modeling (PLSPM). The study reveals that infrastructure has a direct positive effect on TDC while the indirect positive impact of the economy on TDC is mediated via the environment and infrastructure. Similarly, Cvelbar, et al (2016) considered a productivity-related measure of TDC for a sample of 159 countries over a period of 200-2011 using six destination competitiveness factors measured by 55 indicators. The study found that infrastructure and destination management (tourism-specific factors) are the fundamental drivers of tourism competitiveness in developing countries whereas the competitiveness of the developed countries in mainly determined by both the tourism-specific and wider economic factors such as general infrastructure, macroeconomic environment, and the business environment. Furthermore, social and technological indicators have a greater impact than human and environmental factors on the TDC (Gooroochum and Sugiyarto, 2005). From the demand viewpoint, Andrades-Caldito et al, (2014) evaluated the determinants of TDC and examine their influence on the tourists' choice of destination to visit. The study proposed a structural equation model derived from the theoretical TDC models. The model was tested for a sample of tourists who visited Andalucia, Spain in 2010. The study found that destination management and destination resources are vital determinants of TDC. Tourists perceived that destination management provides better and satisfactory services using destination resources. The study further concluded that core resources are the basis for the development of created resources. Finally, the study revealed that destination management is a significant predictor of tourist's choice of destination and created resources that have the strongest impact on TDC. Other studies such as Goffi (2013), Huang and Peng (2012), Menzanec and Ring (2011) Croes and Kubichova (2013), Mendola and Volo (2017) empirically evaluated the determinants of TDC and came up with similar conclusions. Another aspect of the

tourism literature that received research attention is the evaluation of the determinants of tourist performance. That is, the drivers of tourism demand and supply if you like. The studies in this aspect started with the pioneering work of Morley (1992) who studied the theoretical tourism demand function and evaluated its properties such as homogeneity, asymmetric and adding-up properties. Following this theoretical move, several empirical studies sprang up in the area of the determinants of tourism demand. Among the early studies that applied the Morley theoretical model is Syriopoulos and Sinclair (1993) who tested the model for a sample of Mediterranean countries. The study econometrically estimated the own and cross-price elasticity of tourism expenditure of US and western European countries on Mediterranean countries. The findings reveal the relevance of relative price in determining tourism demand. Consequently, prices, population, exchange rate, and income level have become the focus of researchers as the fundamental determinants of tourism performance (measured by demand and supply variables). The first category of studies in this regard examines the causal relationship between tourism demand and economic growth measured by the growth rate of GDP (see, Untong et al, 2015; Song, Witt and Fei, 2010). For example, Sequeira and Campos (2007) and Sequeira and Nunes (2008a) assessed the causal association between economic development and international tourism. The studies considered the effect of some macroeconomic variables including real GDP, population investment, trade openness among others on tourist arrivals, tourist receipts. Using panel data techniques, the studies concluded that tourism is a significant determinant of economic development and poor countries benefit more from both tourism demand and receipts, whereas, small countries benefit less from specializing in tourism. In the same spirit, Odhiambo (2011), using Autoregressive Distributed Lagged (ARDL) Bounds test, submitted that tourism propels economic

growth in the short run, but in the long run, growth-led tourism development prevails in the case of Tanzania. Besides, the study observed a bi- directional causality between tourism and the exchange rate in the country. This implies that both tourism demand and exchange rate drive each other in the short run. Harvey, Faruoka, and Munir (2013) using the same approach, ARDL for the case of the Philippine confirmed the importance of economic growth (GDP) for the development of tourism not only in the short but also in the long run. Similarly, Dritsakis (2013) concluded that real effective exchange rates and GDP are strongly related to tourism development in seven Mediterranean countries (Turkey, Cyprus, Greece, Italy, France, Tunisia, and Spain) over the period 1980-2007. Chi (2015) found that world GDP per capita is a crucial determinant of tourism demand and supply for the US and eleven of its main tourism and trade partners over the period 1960-2011. Also, the study finds out that tourism demand is more elastic (sensitive) to changes in income that changes in exchange rates. Prices and exchange rates are also considered in some literature as important drivers of tourism demand. For instance, Dwyer and Forsyth (2002) as well as Oh and Ditton (2006) in separate studies found that prices and exchange rates are both significant determinants of tourism flows. Exchange rate depreciation and lower inflation rate enhances the price competitiveness of tourism destination, and hence tourism demand. Considering exchange rate volatility, Chang and Mcaleer (2012) use daily exchange rate data for Taiwan over the period covering 1 January 1990 to 31 December 2008 and found that the volatility of the exchange rate can have either positive or negative effect on tourist arrivals depending on the source of the international tourists. The study also found that relative prices and exchange rate volatility tend to have different effects on tourist arrivals. In the same vein, Katircioglu, Katircioğlu, and Altinay (2018) found a significant long-term relationship between financial development and

tourism development for Turkey. Considering South African countries, Saayman and Saayman (2013) examined the effect of exchange rate volatility on tourism demand. The study finds that the volatility of the South African Rand has a significant impact on both tourist arrivals and visitors spending. Recently, Martins et al, (2017) used three econometric models to examine the relationship between macroeconomic variables and tourism demand measured by tourists' population expenditure for a panel of 218 countries over the period 1995-2012. The study provided evidence that increase in world GDP per capita, an increase in exchange rates (depreciation) and lower domestic prices tend to boost tourism demand. Additionally, GDP and relative prices are more important in explaining tourist arrivals and tourist expenditure respectively. The finding was found to be fostered across different continents. Several other studies also evaluated the effect of a couple of macroeconomic variables using different countries and groups of countries across the world. Although the studies made diverse submissions, a recent meta-analysis by Peng, Song, Crouch, and Witt (2015) identified that prices, GDP, exchange rates and population are the fundamental determinants of tourism performance over the times (see Schiff and Beckan, 2011; Santana-Gallego, et al, 2010; De Vita, 2014; Gatt and Falzon, 2014; Chen, Lin, and Chen, 2015; Song et al, 2010). Now, the relationship between tourism competitiveness and tourism performance begins to receive attention from researchers. Some studies have been identified in that direction. Webster and Ivanov (2013) investigated the effect of tourism competitiveness on tourism contribution to GDP for a sample of 131 countries. Using the travel and tourism competitive index for 2011, the study revealed that tourism competitiveness does not have a significant effect on the contribution of tourism to economic growth. Similarly, Marti and Puertas (2016) employed a gravity model to find out the impact of tourism competitiveness on tourist arrivals of European

Mediterranean countries in 2015. The result showed a negative effect of the tourism competitiveness on tourism. Therefore, the study concluded that the destination countries do not take advantage of their tourism potentials and need to design a viable policy framework to boost their tourism performance. Most recently, Hanafiah and Zulkifly (2019) examined the relationship between TDC and tourism performance. The study evaluated the soundness of the components of the TDC in explain tourism performance for a sample of 115 countries using the WEF 2015 travel and tourism competitiveness index. The study confirmed that core resources, tourism price, globalization, and complementary conditions are the significant determinants of tourism performance. The findings also revealed a significant impact of the TDC on tourism performance, and the effect on less developed and developed countries is diverse. While these studies made a significant contribution by relating tourism competitiveness, their shared defect is that they failed to consider the sub-indexes of the tourism competitive index. Moreover, the studies used cross-sectional data and failed to capture the regional and income heterogeneity of the countries. Consequently, the studies failed to account for the dynamic changes and heterogeneity that can be intrinsic in the tourism competitiveness and performance correlation. Therefore, these estimates might be biased resulted in unreliable policy conclusion. Therefore, this study tends to fill the research gap by evaluating the effect of tourism competitiveness on tourism performance from a global perspective. This current study does not only used most recent panel data but also considers the components of the competitiveness as well as regional and income heterogeneity of the countries in the analysis. The index has been established by economic forum in 2007 and major contribution can be realized in terms of analyzing the potential of destination in order to increase the level of performance in multi dimensions, in fact the index implies that any destination can

according to the natural resources, availability of various attractions requires to have a proper planning, strategies, and executions according to the deficits, strengths. As a matter of fact, in terms of expanding tourism opportunities, it is important to note that policy conditions, stakeholders, law stabilities and economic conditions are the main determinants of the destination prosperity, for which every session of planning will be conducted and planned according to the prioritized program in order to accomplish wellness of that destination. As a main contributor to the development of country or region, competitiveness index evaluates different factors related to environmental aspects which comprises travel and hospitality industry, regulatory environmental framework, biodiversity advancement in destination's natural resources, and also availability of those natural resources for tourist and visitors. Also, the index prioritizes human impacts considering health issues by explaining the benefits for having being able to access the clean and safe water, positive development of infrastructure, and health considering issue by increasing the quality for touristic destinations. The index implies that the growth of hospitality industry contributes positively to the growth of economy of the destination. According to the index, tourism contributes for 9 percent of global GDP and more 270 million jobs globally. Naturally a destination with enhanced and qualified infrastructures, protected natural resources and other related factors such as economic stability affordable exchange rate will rank positively and travel and tourism competitiveness index. In such case, the destination with high rank will contribute to local and international economy in terms of attractive touristic destination. To sum up, the tourism for developing countries had noticeable growth from the past 50 years. According to the index statistics and figures, Malaysia is the second and mostly visited country in global rankings. International tourist arrivals of Malaysia increased from the last decade from 5 million in 1988 25 million in 2010.

Accordance with population of Malaysia which comprises 28.5 million people, Malaysia ranks high on the index and possesses 35th overall that includes high rankings of price competitiveness, natural sources prioritizing the travel and hospitality industry. The government of Malaysia realizes the importance of tourism in assisting the country to achieve the higher income by 2025 compared to the world other high ranked destinations. The contribution of the travel and tourism competitiveness index to overall economy of the world specially to the developing countries in order to overcome poverty. Over the past few years due to world financial crises the index was declining. As created by world economic forum the index tries to make a precise measurement in terms of policies and factors which could make countries reliable places to make serious investment in terms of hospitality sector. It is important to note that, the index also measures the performance of the country in terms of quality of infrastructures, business environment, hygiene and health factors, safety and other related factors in order to make the destination or country to access the required level of performance and sustainability.

2.15 Tourism Destination Performance

The hospitality industry has already been known as one of fast-growing industries which contributes to economic revenue of a destination. Many of scholars have analyzed the impact of performance of a destination on prosperity and attractiveness of the destination. For example, scholars such as (Alipour and Kilic 2005) argued about the importance of economic return and tourist arrivals which contributes to the prosperity and increased performance of the destination that a study was conducted upon Turkish Republic of Northern Cyprus. In a comprehensive study the very scholars (Alipour and Kilic, 2005) observed and analyzed the main structure of North Cyprus paradigm which caused the north part stay behind the south part. In fact, the

fundamental and technical assessment of the destination in any dimension will appear a different cause and effect which needs to be observed, analyzed and resolved in terms of improving the performance of the destination. As a perspective the tourism performance had been discussed in many of management topics and studies. Many of scholars have noted that in hospitality system, the effectiveness is the result of the increased performance of the destination. Different measurements applied to the assessment of the performance. For example, many scholars noted that the efficient production circle is the main contributor of performance which affects competitiveness positively. Efficient production as a driver of the economic condition of destination derives from the economic development of that destination. What becomes important is the role of the indicated variables. In fact, evaluation of destination performance is not considering the economic development and business planning process but indeed it assumes that the value in community and social capital are the main determinants of destination in creation of mutual relationship development of visitors and residents. Study conducted by Hatry (1999) approved that he explains performance in terms of income and outcome of the community. The performance in China is also recognized as an achievement, efficiency of work and accomplishment, which means in terms of individual or organizational achievement for a certain activity engagement. In performance literature, in a destination, performance of the behavior that refers to a behavior compatible with organization, the outcome performance that calls for the achievement of the organizational goal, coalition performance that is, the measurement of behavior and activity are three main contributors of performance (Livaic, Mellor 2003). In order to evaluate the competitiveness in a destination, it is highly recommended to realize the importance and efficiency of a destination in terms of tourism offerings and adjustment of demand in tourism. It shows the fundamental need

to assess the tourism activity performance in enhancing the potential of destination by tourism destination policymakers. Many of scholars have evaluated the tourist satisfaction, competitiveness, and arrivals to clarify tourism performance. However, from 2007, the travel and tourism competitiveness index have been used as a prime indicator of tourism performance. Regarding effectiveness, destination competitiveness is evaluated by compound indices, such as travel and tourism competitiveness index. The index of tourism and travel competitiveness is measured in terms of perception- based evaluation and secondary data that assesses the tourism competitiveness based on national or macro level of destination. As a matter of fact, in recent years studies found out that destination competitiveness should not be solely based on the advantages of that destination but in fact considering the actual destination performance. it means, the destination is competitive when destination converts factors into tourism revenues. When a destination can obtain tourists spending, then the destination shows the ability to compete. This specification is accordance with the main and important goal of the destination that include the advancement of life quality, increasing the profitability and retaining the competitiveness. All these noted factors can attain in terms of industry growth, service and product quality, stakeholder quality. Mazanec (2007) tried to assess the tourism performance in terms of market share based on tourist arrivals, tourism growth and distance weighted market share. By time, in terms of understanding the limitations of performance measurements, Croes (2013) constructed a system in order to evaluate tourism performance based on competing theory, which also proposed indicators of tourism receipts growth rate and tourism demand, considering the size of the industries regarding economic structure and finally the living standards. Later the Croes (2013) mentioned that tourism competitiveness is the antecedent of tourism performance. In

study conducted by (Hasan Kilic, Ali Ozturen, 2021) regarding tourism performance in managing the natural tourist attractions, their findings revealed that the infrastructure, environmental factors, activities of location recognized as the main determinants of tourism performance advancement. They added, pro- environmental visitors, government related responsibilities and tourist managing procedure are the main antecedents of tourism attraction in region of Karpaz touristic destination in North Cyprus. Tourism comprises activities with different positive and negative outcomes which happens in sensitive parts of the destination. For example, lakes, sea, mountain or other vulnerable places, regarding the noted factors, managing and maintenance of these attractions are recognized as important factors. As a matter of fact, tourism requirements include, road infrastructures, airport, and also other welfare facilities such as hotel, restaurant, café, shopping malls, bars and marina. In case of lack of progressive maintenance and management, they will result in eradication. According to (Hasan Kilic, Ali Ozturen, 2021) tourist destinations have their own potential and capacity regarding their structures that fits in destination, in case of exceeding level of usage specifically non-renewable resources will be influenced. In order to prevent and increasing the sustainability level of natural resources it is crucial create a balance between the process of supply and demand. Tourism as a consumer of core resources of a destination or mass tourism as a threat to local and regional resources, the capacity of destination should give a consideration to the risk of biodiversity in terms of preservation of natural and environmental resources. Upon to these scholars such as (Hasan Kilic, Ali Ozturen, 2021) have proposed the pre-planning for development of tourism which helps destination to exclude environmental damages and other related factors such as invariable and expensive faults regarding the demand for products, services that the tourism manages, it is the significance of

the destination for sustainable development generates its resources. In other study related to increasing the performance of tourism in destination a study conducted by (Ali Ozturen, Dogan Gursoy and Hasan Kilic, 2017) in case of Hatay, Turkey they revealed that the influence of local foods and creativity in content is one of the main determinants of destination attractiveness and tourism performance. Turkey is recognized as 7^{th} place of tourist arrivals and 9^{th} in terms of tourism revenue. The main contribution of destinations in order to attract more visitors are based on these factors. Hence, it is crucial to note that, applying marketing strategies and developing programs should be the first element of gaining competitive advantage in terms of creation of brand image of destination and the range of creativity. Based on their findings, local foods and beverages importantly influencing domestic visitors to visit Hatay was effective in terms of managing local foods. They later added, Gastronomy development in terms of effecting the destination no matter national or international level increase the level of sustainability of destination beside cultural and natural resources, entertainment, and all other related factors in branding image and increasing the level of performance of the destination.

2.15.1 Assessment of Destination Performance

Irrelevant from general private companies, destination performance needs to be extensive in its construct from sustainability point of view. In research studies, destination performance is usually derived correlated with competitiveness. In fact, many of studies centered based on economic outcomes and mainly focusing on economic variables. By developing a new model in order to improve the performance accreditation, many of researchers also focused on indicators of achievements which attached through sustainability elements. According to the Mellor, Dwyer and Livaic (2003) the assessment of competitiveness in a destination is highly correlated with the

demand and supply principles. Indeed, according to the supply and demand model it is the destination's cultural and natural resources, innovated sources which include events and opportunities, and supportive variables that encapsulates quality of service, accessibility, and market connections. Other factors which determine the achievement of the destination is occasional factors such as, political durability, compatible laws, politics, security and technology advancement. Practical factors of managing the destination, marketing plans, environmental managing plans. Beyond all these factors, the condition of demand has also important role in destination success which include number of visitors, awareness, perception and preference. Many of scholars have approved the noted factors in sustainability of destination, in fact, Hassan (2000) designed framework which asserted mainly on the effect of environment of the destination on competitiveness that is also known as main determinant of sustainability of destination. This approach is very compatible for the research of Ritchie and Crouch model which emphasizes mainly on natural resources and also how they spread. Their emphasis is the environmental factors which can be regarded as successful factors that required to be found, assessed, and enforced as the main determinants of the destination.

2.15.2 The Economy, Efficiency, Effectiveness and Equity Framework

The economy framework is the economic advancement of tourism contribution, crucially based on monetary development. The GDP share and the ratio of annual growth of tourism were indicated as the main outcome factors.

The efficiency is the rate of input and output of tourism development, in consideration of main shareholders of tourism supply chain, referring to travel agency, hotel, and employee.

The effectiveness refers to a quality degree which assesses the results related to developing destination goals, such as results of performance which directly evaluates the tourist experience quality and also the tourism growth trend, the main indicators were chosen the travel agencies, verified hotel stars by accredited organization, attractions and etc.

Equity refers to ecological and social factors which determines the community wellness which tourism provides for destination. Moreover, it evaluated if the citizens benefit from tourism growth. Factors such as services, facilities, and quality of social and ecological factors. Another aspect of the tourism literature that received research attention is the evaluation of the determinants of tourist performance. That is, the drivers of tourism demand and supply if you like. The studies in this aspect started with the pioneering work of Morley (1992) who studied the theoretical tourism demand function and evaluated its properties such as homogeneity, asymmetric and adding-up properties. Following this theoretical move, several empirical studies sprang up in the area of the determinants of tourism demand. Among the early studies that applied the morley theoretical model is Syriopoulos and Sinclair (1993) who tested the model for a sample of Mediterranean countries. The study econometrically estimated the own and cross-price elasticity of tourism expenditure of US and western European countries on Mediterranean countries. The findings reveal the relevance of relative price in determining tourism demand. Consequently, prices, population, exchange rate, and income level have become the focus of researchers as the fundamental determinants of tourism performance (measured by demand and supply variables). The first category of studies in this regard examines the causal relationship between tourism demand and economic growth measured by the growth rate of GDP Untong et al, 2015 Song, Witt and Fei, 2010). For example, Sequeira and Campos

(2007) and Sequeira and Nunes (2008a) assessed the causal association between economic development and international tourism. The studies considered the effect of some macroeconomic variables including real GDP, population investment, trade openness among others on tourist arrivals, tourist receipts. Using panel data techniques, the studies concluded that tourism is a significant determinant of economic development and poor countries benefit more from both tourism demand and receipts, whereas, small countries benefit less from specializing in tourism. In the same spirit, Odhiambo (2011), using Autoregressive Distributed Lagged (ARDL) Bounds test, submitted that tourism propels economic growth in the short run, but in the long run, growth-led tourism development prevails in the case of Tanzania. Besides, the study observed a bi directional causality between tourism and the exchange rate in the country. This implies that both tourism demand and exchange rate drive each other in the short run. Harvey, Faruoka, and Munir (2013) using the same approach, ARDL for the case of the Philippine confirmed the importance of economic growth (GDP) for the development of tourism not only in the short but also in the long run. Similarly, Dritsakis (2013) concluded that real effective exchange rates and GDP are strongly related to tourism development in seven Mediterranean countries (Turkey, Cyprus, Greece, Italy, France, Tunisia, and Spain) over the period 1980-2007. Chi (2015) found that world GDP per capita is a crucial determinant of tourism demand and supply for the US and eleven of its main tourism and trade partners over the period 1960-2011. Also, the study finds out that tourism demand is more elastic (sensitive) to changes in income that changes in exchange rates. Prices and exchange rates are also considered in some literature as important drivers of tourism demand. For instance, Dwyer and Forsyth (2002) as well as Oh and Ditton (2006) in separate studies found that prices and exchange rates are both significant determinants of tourism flows.

Exchange rate depreciation and lower inflation rate enhances the price competitiveness of tourism destination, and hence tourism demand. Considering exchange rate volatility, Chang and Mcaleer (2012) use daily exchange rate data for Taiwan over the period covering 1 January 1990 to 31 December 2008 and found that the volatility of the exchange rate can have either positive or negative effect on tourist arrivals depending on the source of the international tourists. The study also found that relative prices and exchange rate volatility tend to have different effects on tourist arrivals. In the same vein, Katircioglu, Katircioğlu, and Altinay (2018) found a significant long-run relationship between financial development and tourism development for Turkey. Considering a South African case, Saayman and Saayman (2013) examined the effect of exchange rate volatility on tourism demand. The study finds that the volatility of the South African Rand has a significant impact on both tourist arrivals and visitors' spending. Recently, Martins et al, (2017) used three econometric models to examine the relationship between macroeconomic variables and tourism demand measured by tourists' population (inbound) and on-the-ground visitors' expenditure for a panel of 218 countries over the period 1995-2012. The study provided evidence that increase in world GDP per capita, an increase in exchange rates (depreciation) and lower domestic prices tend to boost tourism demand. Additionally, GDP and relative prices are more important in explaining tourist arrivals and tourist expenditure respectively. The finding was found to be robust across different continents. Several other studies also evaluated the effect of a couple of macroeconomic variables using different countries and groups of countries across the world. Although the studies made diverse submissions, a recent meta-analysis by Peng, Song, Crouch, and Witt (2015) identified that prices, GDP, exchange rates and population are the fundamental determinants of tourism performance over the times (see Schiff and Beckan, 2011, Santana-Gallego,

et al, 2010; De Vita, 2014, Gatt and Falzon, 2014; Chen, Lin, and Chen, 2015; Song et al, 2010). Now, the relationship between tourism competitiveness and tourism performance begins to receive attention from researchers. Some studies have been identified in that direction. Webster and Ivanov (2013) investigated the impact of tourism competitiveness on tourism contribution to GDP for a sample of 131 countries. Using the travel and tourism competitive index for 2011, the study revealed that tourism competitiveness does not have a significant effect on the contribution of tourism to economic growth. Similarly, Marti and Puertas (2016) employed a gravity model to find out the impact of tourism competitiveness on tourist arrivals of European Mediterranean countries in 2015. The result showed a negative effect of the tourism competitiveness on tourism. Therefore, the study concluded that the destination countries do not take advantage of their tourism potentials and need to design a viable policy framework to boost their tourism performance. Most recently, Hanafiah and Zulkifly (2019) examined the relationship between TDC and tourism performance. The study evaluated the soundness of the components of the TDC in explain tourism performance for a sample of 115 countries using the WEF 2015 travel and tourism competitiveness index. The study confirmed that core resources, tourism price, globalization, and complementary conditions are the significant determinants of tourism performance. The findings also revealed a significant impact of the TDC on tourism performance, and the effect on less developed and developed countries is diverse. While these studies made a significant contribution by relating tourism competitiveness, their shared defect is that they failed to consider the sub-indexes of the tourism competitive index. Moreover, the studies used cross-sectional data and failed to capture the regional and income heterogeneity of the countries. Consequently, the studies failed to account for the dynamic changes and heterogeneity that might be

inherent in the tourism competitiveness and performance nexus. Thus, these estimates might be biased resulting in unreliable policy inferences. Therefore, this study tends to fill the research gap by evaluating the effect of tourism competitiveness on tourism performance from a global perspective. This current study does not only used most recent panel data but also considers the components of the competitiveness as well as regional and income heterogeneity of the countries in the analysis.

Chapter 3

METHODOLOGY

This chapter explains the nature, sources and measurement of data as well as the methods of data analysis employed in this study. To evaluate the impact of tourism competitiveness on tourism performance across the world, secondary data was used in this study. The used of the secondary data becomes most appropriate and necessary because of the macro (global) perspective of the study and the fact that secondary data is readily available and reliable for macro (national or global) level analysis (Vartanian, 2010; Dolata et al, 2015).

3.1 Data (based on Income Group and Region) and Measurement

The development of indicators for the measurement of the tourism competitiveness had been completed over time. Among all the developed indicators and measurements, the TTCI of the WEF is particularly used because of its methodological priority, and comprehensiveness in terms of range of issues captured and the geographical coverage (Martins et al, 2017; Marti and Puertas, 2017; Hanfiah and Zulkfly, 2019).

As a result, we used the 2019 version of the travel and tourism competitiveness index (TTCI) published by WEF in an interval of two years since 2007 (WEF, 2019). Meanwhile, to ensure wider coverage and exploit the recent methodological improvements of the data, we used a panel data for the period of 2015-2019. The previous versions cover fewer number of countries and have some methodological defects such as giving homogenous (same) weight to all the pillars and sub-indices

(Wu, Lan and Lee, 2012; Hanafiah *et al*, 2016). This recent version of the TTCI remedy the defects of the previous version. Thus, it is most reliable for policy analysis. The TTCI is calculated from four sub-indices composed of 14 pillars which comprised 90 indicators. The indicators are measured based on WEF Executive Opinion Survey. The responses on each indicator rated on values ranging from 1 (worst) to 7 (best) (WEF, 2019). The four sub-indices and the issues capture by each are briefly discussed as follows. Enabling environment (Sub-index A): This comprises issues ranging from business environment, health and hygiene, security and safety, human resources and labor market as well as the availability of information and communication technology. Travel and tourism policy and enabling conditions (Sub-index B): This assesses the superiority of travel and tourism, international openness, environmental sustainability, and price competitiveness. Infrastructure (Sub-index C): The components included for the calculation of this sub-index are transport (land, air, and port) infrastructure and tourist services infrastructure. Natural and cultural resources (Sub-index D): This captures the issues of natural and cultural resources, and business travel. The TTCI is estimated as an arithmetic means of the sub-indices, which are in turn calculated from the averages of the pillars. The pillars measured by the unweighted averages of the individual indicators. The details of the indicators contained in each of the sub-indices and the aspects (pillars) covered by each are obtainable from the methodology section of the WEF report (WEF, 2019) at http://reports.weforum.org/ttcr.The overall TTCI and the four sub-indices are used in this study to capture TC. This enables the comparison of the various components of the tourism competitiveness across the regions. It obtains a wide range of issues and identifies the policy areas in which each region has an advantage and the aspect of the competitiveness that is the most important determinant of tourism competitiveness. The variables used for the tourism

performance are obtained from the hard (non-survey) data of the WEF collected from various sources. The TTCI measures the TC while international tourist arrivals, international tourism receipts, and tourism GDP are used as measures of tourism performance. The use of the three different variables is to ensure the robustness of the impact of the TC on tourism performance. Using only one measure of the tourism performance might becloud the understanding of the nature of the relationship and impact between competitiveness and performance. Also, two control variables, GDP, and population obtained from the World Bank's world development indicators (WDI) were included to avoid the problem of omission variable bias. The data is collected for 147 countries across the continents of the world based on data availability.

3.2 Model Specification

The study uses three different models for the tourism performance as tourism competitiveness function and the control variables. The tourism performance in measured in terms of number of international tourist arrivals, the international tourism receipts or travel and tourism GDP. The three variables are modelled separately to ensure robustness of the estimates, findings and conclusions regarding the impact of tourism competitiveness on tourism performance. Following Martins et al, (2017) Marti and Puertas (2017) and Hanfiah and Zulkfly (2019) we specified the models as follows.

The first set of models specified contains the overall index of the TTCI for the three dependent variables.

$$lnITA_{i,t} = \beta_0 + +\beta_1 lnGDP_{i,t} + \beta_2 lnPOP_{i,t} + \beta_3 lnTTCI_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (1)$$

$$lnITR_{i,t} = \beta_0 + +\beta_1 lnGDP_{i,t} + \beta_2 lnPOP_{i,t} + \beta_3 lnTTCI_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (2)$$

$$lnTGDP_{i,t} = \beta_0 + \beta_1 lnGDP_{i,t} + \beta_2 lnPOP_{i,t} + \beta_3 lnTTCI_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (3)$$

Equation (1), (2) and (3) represent the models for the effect of overall TTCI on international tourist arrivals, international tourism receipts and travel and tourism sector GDP respectively.

To estimate the effects of the components of the tourism competitiveness, the four sub-indices are included in the models as specified below.

$$lnITA_{i,t} = \delta_0 + \delta_1 lnGDP_{i,t} + \delta_2 lnPOP_{i,t} + \delta_3 lnEE_{i,t} + \delta_4 lnINFR_{i,t} + \delta_5 lnPC_{i,t} + \delta_6 lnNCR_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (4)$$

$$lnITR_{i,t} = \delta_0 + \delta_1 lnGDP_{i,t} + \delta_2 lnPOP_{i,t} + \delta_3 lnEE_{i,t} + \delta_4 lnINFR_{i,t} + \delta_5 lnPC_{i,t} + \delta_6 lnNCR_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (5)$$

$$lTGDP_{i,t} = \delta_0 + \delta_1 lnGDP_{i,t} + \delta_2 lnPOP_{i,t} + \delta_3 lnEE_{i,t} + \delta_4 lnINFR_{i,t} + \delta_5 lnPC_{i,t} + \delta_6 lnNCR_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (6)$$

Equation (4), (5) and (6) represent the models for the effect of the four components of the TTCI on international tourist arrivals, international tourism receipts and travel and tourism sector GDP respectively. The slope coefficients of the independent variables

for the models with overall TTCI are β_1, β_2 and β_3 respectively while the constant parameter is β_0. For the models with the components of TTCI, the slope coefficients of the independent variables are denoted by $\delta_1, \delta_2 \ldots \delta_6$ while the constant parameter is δ_0. In all the country-specific and time-specific intercepts are denoted by μ_i and λ_t respectively. These are included in panel data models to capture time and cross-sectional-specific characteristics in the models (Baltagi, 1995). The subscript i and t represent the individual country and time (year) respectively. The natural log of the variables is indicated by ln. The log is taken to harmonize the units of measurement for easy interpretation, solve the problem of outliers (extreme low or extreme high values), and compare the estimates of the slope coefficients in terms of elasticities. The variables are defined in table 7.

Table 7: Definition of Variables.

Name	Definition	Source
Dependent variables		
ITA	International tourist arrivals in thousands.	WEF hard data
ITR	International tourism receipts (inbounds in million US$)	WEF hard data
TGDP	Travel and tourism GDP in million US$	WEF hard data
Independent variables		
TTCI	Overall Travel and tourism competitiveness index	WEF soft (survey) data
EE	Enabling Environment (Sub-index A)	WEF soft (survey) data
INFR	Infrastructure (Sub-index C)	WEF soft (survey) data
PC	Travel and Tourism Policy and Conditions (Sub-index B)	WEF soft (survey) data
NCR	Natural and Cultural Resources (Sub-index D)	WEF soft (survey) data
Control variables		
GDP	Gross Domestic product in US$	World Bank's WDI
POP	Population	World Bank's WDI
EXR	Official exchange rate (LCU per US$, period average)	World Bank's WDI
Note: WEF=World Economic Forum, WDI = World Development Indicators		

3.3 Methods of Data Analysis

Three stage least square estimator is applied for the estimation of all the regression models. The technique has the advantages of solving the econometric problems of endogeneity, heteroscedasticity and multicollinearity. This problem is likely to be the issue of the panel data used in this study lead to biased and inconsistent estimates. For instance, the variables used the tourism performance might have causal influence on the measures of tourism competitiveness. Moreover, there is two-way causal relationship between GDP and the measures of tourism performance, especially tourism GDP. This might cause the problem of endogeneity in the model. Furthermore, multicollinearity exists among some of the components of the TTCI as the measures are intermingle. In addition, heteroscedasticity is a common problem of panel data. Therefore, to solve these potential problems and produce consistent and reliable estimates of the coefficients, the three stage least square estimator is the most appropriate for this study. It is worthy of note that all the models were estimated for the overall sampled countries, regional and income groups separately. This is to obtain the universal perspective of the tourism competitiveness-tourism performance correlation and also provide specific policy analysis and conclusion based on each region and income group of the countries. In addition to the multiple regression analysis, preliminary analysis such as descriptive statistics, correlation analysis and graphical exposition of the variables are applied for the analysis of the data. The results of all the analysis are presented and discussed in the subsequent sections of this study.

Chapter 4

RESULTS AND DISCUSSION

The estimation results for the preliminary and the regression analysis are presented and analyzed in this section. We first start with the preliminary analysis to demonstrate the statistical characteristics of the variables and the relationship among the key variables used in the study. This is important for the choice of appropriate options of the estimation techniques. It also provides background information about the data. To examine the statistical characteristics of the variables used in this study, the descriptive statistics and the correlation analysis are conducted and the results are presented in table 1. The statistical estimates display enormous dynamics about the variables over the period. It shows that on the average, the overall tourism competitiveness index is 3.795 with a minimum of 2.418 and maximum score of 5.44. This indicates a significant variation in the tourism competitiveness of the countries over the period. Relatively wide difference exists between the scores for the lowest and uppermost percentiles. All these indicates that there are huge changes in the variables that are worth evaluating as carried out in this study. Further, GDP between the sample countries shows a wide gap with minimum of 12.32 billion and maximum of 173.486 trillion USD over the period. The population dynamics are also huge. These dynamics are also displayed by the measures of the tourism performance (international tourism arrivals, international tourism receipts and tourism GDP). In addition, the statistics also shows that all the variables but enabling environment (EENV) and policy and conditions (PCON) are positively skewed while most of them show a fat tail behavior.

This implies that the variables are not normally distributed and thus, the ordinary least square (OLS) estimator (pooled regression) is inappropriate for this study. Hence, the use of the Three-stage least square is further buttressed by the descriptive statistics. To evaluate the strength of relationship among the variables and spot out the existence of multicollinearity among the variables, the pairwise correlation analysis was carried out and the result is reported in the lower portion of table 1. The estimates show that there is positive correlation between all the independent variables and the three measures of tourism competitiveness (ITA, ITR and TGDP). Meanwhile, the correlation coefficients among the measures of tourism competitiveness are weak (less than 0.9). This indicates there is no potential multicollinearity problem among the variables. The small correlation coefficients indicate weak relationship among the independent variable. It means each of the variable can have clearly distinct impact on the indicators of tourism performance. Thus, they can be included concurrently in the regression model as done in this study.

Table 8: Descriptive Statistics and Pairwise Correlation

Variables	Obs	Mean	Standard Deviation	Min	Max	P1	P99	Skew.	Kurt.
GDP in billion US$ (GDP)	441	5214.91	17504.03	12.32	173486	15.75	101319	7.04	60.47
Population in millions (POP)	441	48.219	161.292	.093	1386.395	.285	1338.659	7.288	58.693
Enabling Environment (EENV)	441	4.73	0.8	2.74	6.22	3.15	6.08	-.18	2.09
Policy and Conditions (PCON)	441	4.21	0.43	2.8	5.15	3.19	4.96	-.45	2.64
infrastructure (INFRA)	441	3.55	1.1	1.69	5.79	1.84	5.68	0.3	1.96
Natural and Cultural Resources (NRCR)	441	2.7	1.07	1.3	6.1	1.44	5.86	1.38	4.36
Travel & Tourism competitiveness index	441	3.795	0.696	2.418	5.44	2.524	5.372	.272	2.339
International tourist arrivals (ITA)	441	8038.38	14337.49	3.5	86917.7	30	77510.28	3.23	14.61
International tourism receipts (ITR)	441	8337.26	20380.67	0.1	210747	1.45	68114.13	6.44	56.25
Tourism GDP (TGDP)	441	17091.68	53318.43	48.47	554872.9	68.89	241829	6.89	58.61

Variables	GDP	POP	EENV	PCON	INFRA	NRCR	ITA	ITR	TGDP
GDP	1.000								
POP	0.529*	1.000							
EENV	0.208*	-0.081	1.000						
PCON	0.099	-0.063	0.647*	1.000					
INFRA	0.329*	0.024	0.854*	0.654*	1.000				
NRCR	0.567*	0.428*	0.314*	0.323*	0.516*	1.000			
ITA	0.678*	0.329*	0.368*	0.288*	0.553*	0.735*	1.000		
ITR	0.900*	0.400*	0.318*	0.219*	0.487*	0.601*	0.813*	1.000	
TGDP	0.978*	0.470*	0.215*	0.122*	0.345*	0.587*	0.729*	0.900*	1.000

* shows significance at the 0.05 level, P1 and P99 indicates the first and 99 percentile respectively.

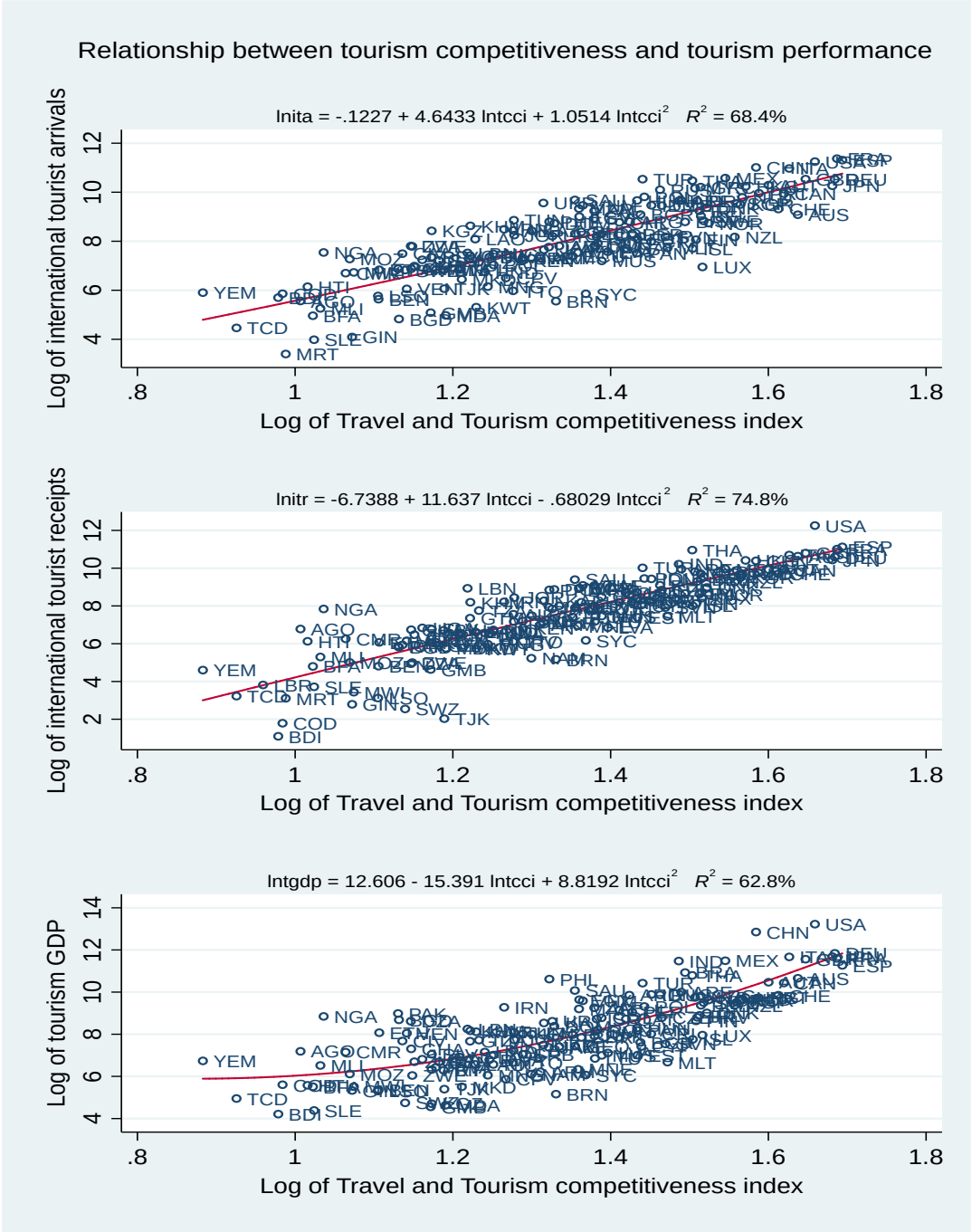

Figure 24: Relationship between Tourism Competitiveness and Tourism Performance

The graphical exposition of the relationship between tourism competitiveness and tourism performance in 2019 is depicted in figure 1. The plot generally shows a positive relationship between all the three measures of tourism performance (international tourist arrivals, international tourism receipts and tourism GDP) and the overall tourism competitiveness. This implies that, higher levels of tourism

competitiveness are associated with higher tourism performance. That is, countries that record higher tourism competitiveness performs better in tourism arrivals, receipts and GDP. Meanwhile, the scatter plots demonstrate that most of the low-income countries (particularly African countries) are near the origin of the graphs indicating their low records in both tourism competitiveness and tourism performance. On the other hand, the high-income countries (particularly Europe and North America) record high index of both the tourism competitiveness and tourism performance. In short, the plot shows that the performance of the countries in tourism competitiveness and performance are in clusters of regions and income levels. This displays the likelihood of the heterogeneity of the impact of tourism competitiveness on tourism performance based on the regions and income groups. Moreover, the strength of the relationship varies by the indicators of the tourism performance. The strongest relationship (R^2=74.8%) is depicted for the tourism competitiveness and tourism receipts. Therefore, the need for the investigation of the impact of the tourism competitiveness on tourism performance based on regions and income groups considered in this study is got reiterated by the statistical facts present in the graphical display. Hence, in addition to the global sample of countries, the regression outputs for different regions and income groups for the three measures of tourism performance are also presented and discussed accordingly.

4.1 Interpretation and Discussion of Regression Results

The three stage least square is used to estimate the models specified in the methodology section, the results are presented in table 2 through table 7. The estimates are obtained using the overall tourism competitive index and its four components (sub-indices) as independent variables and ITA, ITR and TGDP as dependent variables for the entire sample of countries, regions and income groups. In line with the models specified in the methodology, international tourism arrivals, international tourism

receipts and tourism GDP are used as the dependent variables to represent tourism performance while the travel and tourism competitiveness and its components are served as the independent variables in each model. The estimates of the slope coefficients for each variable are used to examine its significance as determinant of the tourism performance. In this case, the significance is indicated by the P-values denoted by asterisk in the output. This is confirmed by the standard errors compared to the coefficients. When half of the coefficient is greater than the standard error, the variable is statistically significant at 95 percent confidence interval ($P<0.05$), the variable is insignificant if otherwise. The fitness of the models is evaluated by their respective coefficients of determination (R-square) statistics. Higher values of the R-square statistics indicate fitness of the model. In addition, the F-statistic is used to evaluate the overall significance of the variables. The results shows that the P-values of the F-statistics of all the models are less than 0.01, indicating the overall significance of the variables in all the models. Also, the result indicates that the control variables are statistically significant and assumed the expected signs. However, the estimates of the control variables are not discussed because they are not the focus of this study. It is also noteworthy that all the coefficient estimates are interpreted as elasticities or in percentages because the natural logs of both the dependent and independent variables are used for the estimation.

4.1.1 Impact of Tourism Competitiveness on Tourism Performance Globally and Regionally

The estimates for the evaluation of the impact of tourism competitiveness on international tourism arrivals are displayed in table 10. The upper panel (Panel A) of the table contains the estimates for the effect of the overall tourism competitiveness index while the estimates for the sub-indices are reported in the lower portion the table

(Panel B). The estimates for all the sampled countries and the regions are presented in columns (1 to 6). The result shows that the overall competitiveness index have significant positive effect on the international tourist arrivals for the entire sample as well as all the regions considered. The estimated slope coefficient (elasticity) of the competitiveness index is significant for the overall sample (β =1.17; P<0.01), Americas (β =0.91; P<0.05), Asia (β =2.89; P<0.01), Europe (β =1.35; P<0.1), MENA (β =2.67; P<0.01) and Africa (β =2.04; P<0.01). This indicates that higher levels of competitiveness will result to higher tourist arrivals in all the regions and the entire globe. Moreover, the results show that tourism competitiveness have the greatest effect on the tourist arrival for the Asian followed by MENA region and Africa while its effect for the Americas is the least. These findings corroborate the conclusion of the WEF report that the tourism competitiveness has greater influence on the tourism sector of the developing economics than the developed economies (WEF, 2007; 2011; 2019). Tourist arrival is elastic to the changes in tourism competitiveness for all the regions except Americas. This implies that increase in tourism competitiveness brings about more than proportionate increase in tourist arrivals for all the regions except Americas for which increase in tourism competitiveness results to less than proportionate increase in tourist arrivals. This finding similar to the submission of Andrades-Caldito, et al (2014) which shows that tourism destination management significantly determines the tourists' choice of destination. By magnitude, 1% increase in competitiveness leads to 0.91%, 2.89%, 1.35%, 2.67% and 2.04% rise in tourist international tourist arrivals for America, Asia, Europe, MENA and Africa respectively. The R-square statistic is high (greater than 0.6) for all the models. It is 0.978 for the global sample. This implies that about 97.8% changes in the tourist arrivals are explained by the independent variables captured in the model. Thus, the

model has a good fit and the estimates are valid for policy inferences. The coefficient estimates for the four components of the tourism competitiveness index in the lower portion of table 10 (panel B). The output shows that all the components are positively related to international tourist arrivals for the global sample (all countries). However, the coefficient estimates of Enabling Environment (β =2.84; P<0.1), Policy and Conditions ((β =2.15; P<0.01) and Natural and Cultural Resources (β =1.36; P<0.05) are statistically significant while Infrastructure (β =0.24; P>0.05) is statistically insignificant. This implies that the former has significant effect on tourist arrivals while the latter do not have significant impact on tourist arrivals. Considering the regression output for each region, the results demonstrate that the coefficient estimates of Natural and Cultural Resources are not statistically significant for all the regions except Asia. On the other hand, the coefficients of Infrastructure are statistically significant for all the regions except Europe. This suggests that infrastructure is a universal determinant of tourist arrivals while natural and cultural resources do not matter for the flow of international tourist arrivals. In addition, the coefficients of Enabling Environment are statistically significant and have highest impact, compare to other components of the tourism competitiveness, on the tourist arrivals for Americas (4.89), MENA (4.53) and Africa (3.25). Comparing by region, the Enabling Environment have its greatest significant effect on the tourist arrivals of the American countries and the least on Sub-Saharan Africa (Africa). The result further shows that the parameter estimate (β=4.93; P<0.01) of the policy and conditions sub-index is the only component of the tourism competitiveness that is statistically significant only for the European regions. It is not significant for other regions. This implies that desirable policy conditions are the main drivers of the international tourist arrivals in Europe. By magnitude, 1% rise in the policy and condition sub-index result to about 4.93%

increase in tourist arrivals in the region. This portrays the importance of right policy framework for the development of tourism in Europe.

Table 11 contains the regression output for the impact of the tourism competitiveness on international tourist receipts. The estimates for the entire sample (all countries) are displayed in column 1 while columns 2 to 6 contains the estimates for the regions respectively. The results for the overall tourism competitiveness in reported in the upper portion of the table 11 while the lower part of the table displays the result for the components of the tourism competitiveness. The estimated coefficients of the tourism competitiveness are positively associated with international tourist arrivals for both the global sample and the regions. The estimates are statistically significant showing that tourism competitiveness have significant impact on the tourism receipts. Comparatively, estimate of the coefficient of the overall tourism competitiveness for Asia (β=3.80; P<0.01) is the highest, indicating that the effectiveness of the tourism competitiveness in enhancing tourism receipts is more for the Asian region than her counterparts considered in this study. All other variables held constant, a percentage improvement in the competitiveness will bring about 3.8% increase in tourism receipts in Asia. That is, about five times greater that the magnitude of impact for the overall sample and three times greater than the effect on Americas and eightfold greater than that of Europe. Following Asia, is the magnitude of the effect (β=3.28; P<0.01) on the tourism receipts of the Africa region.

Table 9: Impact of Tourism Competitiveness on International Tourist Arrivals by Regions

	Dependent variable: International tourist arrivals (log)					
Panel A: overall tourism competitiveness						
	(1)	(2)	(3)	(4)	(5)	(6)
Independent Variables	All countries	Americas	Asia	Europe	MENA	Africa
Tourism competitiveness (log)	1.17***	0.91**	2.89***	1.35*	2.67***	2.04***
	(0.41)	(0.36)	(0.54)	(0.73)	(0.28)	(0.25)
GDP (log)	2.11***	0.26	-0.59**	0.25	-0.32***	0.20
	(0.64)	(0.17)	(0.29)	(0.32)	(0.11)	(0.12)
Population (log)	0.44	0.20	0.66***	0.32	0.97***	0.29**
	(1.58)	(0.15)	(0.24)	(0.30)	(0.11)	(0.11)
Exchange rate (log)	0.029	0.025	0.091	0.088	0.0020	-0.12**
	(0.24)	(0.034)	(0.054)	(0.084)	(0.032)	(0.048)
Constant	-55.0*	-5.57***	0.31	-8.78***	-9.12***	-8.83***
	(29.8)	(1.12)	(2.43)	(2.28)	(1.97)	(1.57)
Observations	441	81	69	138	42	111
R-squared	0.978	0.855	0.691	0.611	0.859	0.788
F-Statistics	80.07[0.00]	67.81[0.00]	22.90[0.00]	19.67[0.00]	42.68[0.00]	58.65[0.00]
Panel B: Components of tourism competitiveness						
Independent Variables	All countries	Americas	Asia	Europe	MENA	Africa
Enabling Environment	2.84*	4.89***	1.01	2.01	4.53**	3.25***
	(1.50)	(1.73)	(2.71)	(3.25)	(2.10)	(1.01)
Policy and Conditions	2.15**	0.64	1.64	4.93	0.81	1.48
	(0.94)	(1.26)	(1.95)	(2.95)	(1.69)	(1.25)
Infrastructure	0.24	1.68**	4.68***	2.79	3.15***	1.41*
	(0.61)	(0.70)	(1.34)	(1.87)	(0.81)	(0.73)
Natural and Cultural Resources	1.36**	-0.36	1.66*	-0.21	1.10	0.85
	(0.61)	(0.36)	(0.91)	(1.18)	(0.96)	(0.60)
GDP (log)	1.96***	-0.20	-0.55*	-0.065	-0.58*	0.22
	(0.64)	(0.27)	(0.32)	(0.41)	(0.29)	(0.14)
Population (log)	0.87	0.91***	0.62*	0.78	1.27***	0.31**
	(1.57)	(0.30)	(0.35)	(0.47)	(0.28)	(0.13)
Exchange rate (log)	-0.13	0.034	0.12*	0.090	0.036	-0.11**
	(0.24)	(0.034)	(0.057)	(0.080)	(0.043)	(0.048)
Constant	-62.7**	-11.9***	-0.13	-16.7***	-10.8**	-11.6***
	(29.5)	(2.29)	(5.83)	(5.27)	(4.00)	(3.29)
Observations	441	81	69	138	42	111
R-squared	0.979	0.890	0.720	0.651	0.873	0.806
F-Statistics	81.30[0.00]	53.19[0.00]	15.08[0.00]	13.31[0.00]	27.58[0.00]	37.34[0.00]

*Standard errors in parentheses***, ** and * denote 1%, 5% and 10% level of significance respectively.*

This confirms the claim of the WEF (2019) that the effect of the tourism competitiveness is more on the tourism sector of the developing countries and regions than the developed countries or regions. Considering the estimates concerning the effects of the components of the tourism competitiveness on tourism receipts, the regression output shows that all the sub-indices have positive association with tourism receipts for the global sample. However, only the coefficients of the Natural and Cultural Resources (β=1.03; P<0.1) and Infrastructure (β=1.04; P<0.1) are statistically significant. This implies that Natural and Cultural Resources as well as infrastructure are crucial determinants of tourism receipts in the world. This is in line with the findings of Cvelbar, et al (2016). Again, when the regions are considered, the coefficients of Infrastructure are indicated to have enormous significant influence on the tourism receipts across all the regions. Increase in the infrastructure sub-index by 1% leads to rise in tourism receipts by 3.67%, 5.28%, 4.62%, 6.03% and 3.24% for Americas, Asia, Europe, MENA and Sub-Saharan Africa respectively. This shows that improvement in infrastructure competitiveness is most beneficial for the MENA countries followed by the Asian countries. In addition, the parameter estimates of Enabling Environment (β=3.88; P<0.1) is significant for only Americas but insignificant for other regions. Similarly, the coefficient of Policy and Conditions is significant only for Africa (β=10.3; P<0.01) while that of natural and cultural resources are significant for Asia (β=2.96; P<0.01), Europe (β=-2.18; P<0.1), and Africa (β=-1.93; P<0.1. Thus, the result suggests that infrastructure competitiveness is the main universal determinant of tourism competitiveness.

Table 10: Impact of Tourism Competitiveness on International Tourism Receipts

	Dependent variable: International tourism receipts(log)					
Panel A: overall tourism competitiveness						
	(1)	(2)	(3)	(4)	(5)	(6)
Independent Variables	All countries	Americas	Asia	Europe	MENA	Africa
Tourism competitiveness (log)	0.88**	1.53***	3.80***	0.50	3.24***	3.28***
	(0.36)	(0.43)	(0.44)	(0.77)	(0.46)	(0.52)
GDP (log)	2.03***	0.20	-0.76***	0.96***	-0.34*	0.21
	(0.57)	(0.20)	(0.23)	(0.34)	(0.19)	(0.26)
Population (log)	1.92	0.21	0.86***	-0.51	0.49**	0.42*
	(1.40)	(0.18)	(0.19)	(0.32)	(0.18)	(0.24)
Exchange rate (log)	-0.54**	0.0083	0.021	-0.027	0.10*	-0.11
	(0.21)	(0.041)	(0.044)	(0.088)	(0.052)	(0.099)
Constant	-76.6***	-6.67***	-2.09	-10.5***	-3.41	-16.2***
	(26.4)	(1.35)	(1.95)	(2.39)	(3.19)	(3.26)
Observations	228	46	41	50	28	63
R-squared	0.990	0.847	0.875	0.681	0.711	0.638
F-Statistics	186.69 [0.00]	63.71[0.00]	71.81[0.00]	26.72[0.00]	17.18[0.00]	27.73[0.00]
Panel B: Components of tourism competitiveness						
Independent Variables	All countries	Americas	Asia	Europe	MENA	Africa
Enabling Environment	-0.37	3.88*	1.62	1.22	2.18	1.34
	(1.34)	(1.96)	(2.01)	(3.37)	(2.81)	(1.87)
Policy and Conditions	1.30	0.60	1.78	1.84	1.06	10.3***
	(0.84)	(1.43)	(1.45)	(3.06)	(2.26)	(2.31)
Infrastructure	1.04*	3.67***	5.28***	4.62**	6.03***	3.24**
	(0.55)	(0.79)	(1.00)	(1.94)	(1.08)	(1.34)
Natural and Cultural Resources	1.03*	-0.40	2.96***	-2.18*	-0.23	-1.93*
	(0.55)	(0.41)	(0.68)	(1.22)	(1.28)	(1.11)
GDP (log)	1.92***	-0.30	-0.70***	0.48	-0.49	0.68**
	(0.57)	(0.30)	(0.24)	(0.43)	(0.38)	(0.26)
Population (log)	2.16	1.05***	0.71***	0.25	1.04**	0.50**
	(1.40)	(0.34)	(0.26)	(0.49)	(0.37)	(0.23)
Exchange rate (log)	-0.55**	0.045	0.037	-0.018	0.12**	-0.011
	(0.22)	(0.039)	(0.043)	(0.083)	(0.057)	(0.088)
Constant	-78.3***	-12.9***	-1.05	-17.3***	-9.05	-35.9***
	(26.4)	(2.58)	(4.33)	(5.46)	(5.34)	(6.08)
Observations	441	81	69	138	42	111
R-squared	0.990	0.897	0.903	0.720	0.824	0.736
F-Statistics	185.62 [0.00]	57.42 [0.00]	54.80 [0.00]	18.37 [0.00]	18.74 [0.00]	25.03 [0.00]

*Standard errors in parentheses***, ** and * denote 1%, 5% and 10% level of significance respectively.*

The estimates for the model in which the tourism GDP is the dependent variable are presented in table 11. The presentation of the results is same as the previous tables. The regression output indicates that the overall tourism competitiveness index is insignificant when the global sample is considered. This is indicated by the coefficient estimate (β=-0.16; P>0.1) which is statistically insignificant. However, it is highly (1%) significant for all the regional samples. The elasticities are greater than one for all the regions except Europe and MENA countries, in which the elasticities are less than one. This shows that a rise in the competitiveness index brings about more than proportionate rise in the tourism GDP in all the regions but Europe and MENA regions.

Like the previous cases, the coefficients of infrastructure are statistically significant across board with highest impact on tourism GDP of Americas and Africa. The coefficients of Policy and Conditions sub-index are weakly significant for Africa while that of Natural and Cultural Resources is highly significant for Americas ((β=0.67; P<0.01). Therefore, tourism competitiveness has multifaceted positive impact on tourism GDP across the world.

Table 11: Impact of Tourism Competitiveness on Tourism GDP

	Dependent variable: tourism GDP (log)					
Panel A: overall tourism competitiveness						
	(1)	(2)	(3)	(4)	(5)	(6)
Independent Variables	All countries	Americas	Asia	Europe	MENA	Africa
Tourism competitiveness (log)	-0.16	1.35***	1.03***	0.91***	0.72***	1.34***
	(0.17)	(0.31)	(0.28)	(0.32)	(0.17)	(0.17)
GDP (log)	0.58**	0.39**	0.40**	0.70***	0.40***	0.61***
	(0.27)	(0.15)	(0.15)	(0.15)	(0.068)	(0.080)
Population (log)	1.30*	0.36***	0.32**	0.055	0.32***	0.19**
	(0.67)	(0.13)	(0.12)	(0.14)	(0.066)	(0.074)
Exchange rate (log)	0.091	-0.0032	-0.026	-0.029	0.019	-0.031
	(0.10)	(0.029)	(0.028)	(0.037)	(0.019)	(0.032)
Constant	-28.8**	-12.7***	-10.9***	-14.2***	-9.78***	-15.1***
	(12.7)	(0.96)	(1.24)	(1.03)	(1.17)	(1.06)
Observations	224	46	41	48	28	61
R-squared	0.997	0.952	0.937	0.935	0.909	0.908
F-Statistics	618.21 [0.00]	229.69 [0.00]	151.86 [0.00]	171.82 [0.00]	70.01 [0.00]	149.69 [0.00]
Panel B: Components of tourism competitiveness						
Independent Variables	All countries	Americas	Asia	Europe	MENA	Africa
Enabling Environment	-0.078	2.31	2.05	-1.25	-1.38	1.00
	(0.64)	(1.58)	(1.30)	(1.32)	(1.19)	(0.62)
Policy and Conditions	-0.017	0.40	0.76	0.94	1.53	1.39*
	(0.40)	(1.15)	(0.94)	(1.20)	(0.96)	(0.74)
Infrastructure	-0.33	2.26***	2.13***	2.16***	1.25**	2.26***
	(0.26)	(0.64)	(0.64)	(0.77)	(0.46)	(0.44)
Natural and Cultural Resources	0.12	0.67**	-0.11	0.37	-0.77	-0.61*
	(0.26)	(0.33)	(0.44)	(0.50)	(0.54)	(0.35)
GDP (log)	0.57**	0.15	0.26	0.67***	0.63***	0.66***
	(0.27)	(0.24)	(0.15)	(0.17)	(0.16)	(0.083)
Population (log)	1.41**	0.69**	0.56***	0.043	0.31*	0.32***
	(0.67)	(0.27)	(0.17)	(0.19)	(0.16)	(0.075)
Exchange rate (log)	0.057	0.014	-0.019	-0.032	-0.0066	0.0060
	(0.10)	(0.031)	(0.027)	(0.033)	(0.024)	(0.029)
Constant	-30.5**	-14.5***	-14.2***	-12.3***	-13.7***	-19.4***
	(12.7)	(2.09)	(2.79)	(2.17)	(2.26)	(1.96)
Observations	441	81	69	138	42	111
R-squared	0.997	0.959	0.950	0.949	0.926	0.930
F-Statistics	607.04[0.00]	153.48[0.00]	110.98[0.00]	127.95[0.00]	50.42[0.00]	116.10[0.00]

*Standard errors in parentheses***, ** and * denote 1%, 5% and 10% level of significance respectively.*

4.1.2 Impact of Tourism Competitiveness on Tourism Performance by Income Groups

In order to obtain the heterogeneity of the relationship between tourism competitiveness and tourism performance, the three stage least square regression was estimated for different income groups of the countries considered. The countries were categorized into four different income groups as presented by WEF (2019) reflecting the IMF classification of countries by their level of income. Accordingly, the countries were categorized into low-income countries (LIC), low-middle-income countries (LMIC), upper-middle-income countries (UMIC) and the high-income countries (HIC). The regression outputs for each income group are presented in column 1 to 4 of table 13, table 14 and table15. Notably, the result for the global sample is not repeated alongside the results the income groups because it is the same with the one presented under the regional groups presented above. The estimate for the evaluation of the effect of tourism competitiveness on tourism arrivals by income groups is presented in table 13. The estimates indicates that overall tourism have a positive and highly significant effect on tourism arrivals for all the groups. This finding verified the theoretical propositions of Ritchie and Crouch (1993) and Heat (2003). The coefficients of the overall tourism competitiveness include 1.72, 2.32, 1.38, and 1.03 for LIC, LMIC, UMIC and HIC respectively. This specifies that the increase (decrease) in tourism competitiveness results to more than proportionate increase (decrease) in tourist arrivals. The LMIC benefits most from improvement in tourism competitiveness. Focusing on the impact of the sub-indices of the tourism competitiveness tourist arrivals for each income group, the estimates depicts that the coefficients of Enabling Environment, and Policy and Conditions are statistically significant for LMIC and HIC while the coefficient of Infrastructure is significant for

all income groups but LMIC while the coefficients of Natural and Cultural Resources are statistically insignificant for all the income groups. This shows that the effects of the components of tourism competitiveness on tourist arrivals varies based on the level of income of the countries.

Table 12: Impact of Tourism Competitiveness on International Tourist Arrivals by Income Groups

	Dependent variable: International tourist arrivals (log)			
Panel A: overall tourism competitiveness				
	(1)	(2)	(3)	(4)
Independent Variables	LIC	LMIC	UMIC	HIC
Tourism competitiveness (log)	1.72***	2.32***	1.38***	1.03***
	(0.62)	(0.37)	(0.30)	(0.26)
GDP (log)	0.43	-0.081	0.16	0.29*
	(0.35)	(0.26)	(0.25)	(0.17)
Population (log)	0.24	0.30	0.28	0.19
	(0.30)	(0.25)	(0.26)	(0.17)
Exchange rate (log)	0.0080	0.011	-0.0025	0.055
	(0.090)	(0.046)	(0.037)	(0.043)
Constant	-13.2***	-3.56	-5.56***	-6.84***
	(4.43)	(2.18)	(2.00)	(1.68)
Observations	72	105	108	156
R-squared	0.399	0.585	0.783	0.752
F-Statistics	6.48 [0.00]	22.54[0.00]	59.70 [0.00]	44.70[0.00]
Panel B: Components of tourism competitiveness				
Independent Variables	LIC	LMIC	UMIC	HIC
Enabling Environment	-0.34	3.78***	1.08	9.98***
	(1.98)	(1.21)	(1.03)	(1.91)
Policy and Conditions	2.50	3.39**	1.25	1.01
	(2.15)	(1.65)	(1.24)	(1.20)
Infrastructure	4.07*	1.04	3.03***	1.74**
	(2.00)	(1.02)	(0.55)	(0.69)
Natural and Cultural Resources	-0.63	0.93	-0.39	-0.17
	(1.45)	(0.70)	(0.40)	(0.37)
GDP (log)	0.31	-0.011	0.17	-0.78***
	(0.49)	(0.26)	(0.23)	(0.25)
Population (log)	0.58	0.33	0.46**	1.44***
	(0.40)	(0.24)	(0.23)	(0.25)
Exchange rate (log)	0.061	0.011	0.0029	0.012
	(0.10)	(0.048)	(0.032)	(0.037)
Constant	-17.2*	-9.97**	-10.6***	-14.8***
	(8.63)	(4.05)	(2.95)	(1.99)
Observations	72	105	108	156
R-squared	0.479	0.625	0.850	0.860
F-Statistics	5.12 [0.00]	15.22 [0.00]	53.54 [0.00]	51.85 [0.00]

*LIC=Low-Income Countries; LMIC=Low Middle Income Countries; UMIC=Upper-middle income countries; HIC= High-income countries. Standard errors in parentheses***, ** and * denote 1%, 5% and 10% level of significance respectively.*

When the tourism receipts are used as the dependent variable, the regression output of the impact of the overall and components of the tourism competitiveness is presented in table 13. Similar to previous results, the coefficients of the overall tourism competitiveness index are positive and statistically significant for all the income groups. This expresses that tourism competitiveness has significant and positive impact on the tourist receipts at all levels of income of the countries considered. Particularly, the estimates show that, all other factors held constant, a percentage increase (decrease) in the tourism competitiveness will bring about 3.09%, 2.56%, 2.87% and 1.47% rise (fall) in tourism receipt of LIC, LMIC, UMIC and HIC respectively. Thus, the tourism receipts of LIC are the most affected by changes in overall tourism competitiveness. For the components of the tourism competitiveness, the result shows that the significant positive effect of infrastructure on tourism receipts cut across all the income groups while Policy and condition sub-index positively affects the tourism receipts of only LIC (β= 16.2; $P<0.01$) and UMIC (β =3.95; $P<0.01$). Furthermore, the coefficient of Enabling Environment is positive and statistically significant for LMIC and HIC but negative for LIC and positive and insignificant for UMIC. This shows that improvement of the Enabling Environment component of the tourism competitiveness is perceived to be inimical to the tourism receipts in LIC. This may be probably because provision of enabling environment opens ways for engagement in other sectors of the economy at the expense of the tourism sector. This is peculiar to the LIC because most sectors are underdeveloped in such countries. Contrarily, the provision of enabling environment improves the tourism receipts of the LMIC and the HIC. In addition, the estimates indicates that the parameter estimates of the Natural and Cultural Resources sub-index is significant for

all income groups. This implies that Natural and Cultural Resources competitiveness is a significant determinant of tourism receipts at all levels of income.

Table 13: Impact of Tourism Competitiveness on International Tourism Receipt by Income Groups

	Dependent variable: International tourism receipts (log)			
Panel A: overall tourism competitiveness				
	(1)	(2)	(3)	(4)
Independent Variables	LIC	LMIC	UMIC	HIC
Tourism competitiveness (log)	3.09**	2.56***	2.87***	1.47***
	(1.15)	(0.30)	(0.43)	(0.21)
GDP (log)	1.31*	0.26	-0.86**	0.41***
	(0.65)	(0.21)	(0.37)	(0.14)
Population (log)	-0.42	0.13	1.23***	0.020
	(0.56)	(0.20)	(0.37)	(0.14)
Exchange rate (log)	0.17	0.018	0.030	-0.043
	(0.17)	(0.037)	(0.054)	(0.036)
Constant	-28.8***	-10.4***	-1.68	-8.83***
	(8.19)	(1.73)	(2.92)	(1.39)
Observations	72	105	108	156
R-squared	0.399	0.796	0.730	0.865
F-Statistics	6.47 [0.00]	62.28 [0.00]	44.67[0.00]	94.73 [0.00]
Panel B: Components of tourism competitiveness				
Independent Variables	LIC	LMIC	UMIC	HIC
Enabling Environment	-2.89	4.34***	1.38	7.94***
	(2.53)	(0.96)	(1.16)	(1.71)
Policy and Conditions	16.2***	1.35	3.95***	0.55
	(2.75)	(1.31)	(1.40)	(1.07)
Infrastructure	4.55*	1.60*	5.98***	2.38***
	(2.56)	(0.81)	(0.63)	(0.61)
Natural and Cultural Resources	-5.16***	1.56***	-1.20***	0.60*
	(1.85)	(0.55)	(0.45)	(0.33)
GDP (log)	2.08***	0.29	-0.65**	-0.37*
	(0.62)	(0.21)	(0.26)	(0.22)
Population (log)	-0.30	0.14	1.50***	0.90***
	(0.51)	(0.19)	(0.26)	(0.22)
Exchange rate (log)	0.36***	0.0093	0.022	-0.066*
	(0.13)	(0.038)	(0.036)	(0.033)
Constant	-58.3***	-13.6***	-14.4***	-14.3***
	(11.0)	(3.22)	(3.33)	(1.77)
Observations	72	105	108	156
R-squared	0.751	0.814	0.888	0.911
F-statistics	16.78[0.00]	40.01[0.00]	75.07[0.00]	86.29[0.00]

*LIC=Low-Income Countries; LMIC=Low Middle Income Countries; UMIC=Upper-middle income countries; HIC= High-income countries. Standard errors in parentheses****, ** and * denote 1%, 5% and 10% level of significance respectively.*

Using the tourism GDP as proxy for tourism performance, the results of the impact of tourism competitiveness on tourism GDP by income groups are contained in table 15. The estimates show that the coefficients of the overall tourism competitiveness are positive and highly significant for all the income groups of countries. This express that tourism competitiveness is an important driver of tourism GDP at all levels of income. Therefore, the effect is greatest for the UMIC and least for the HIC. This implies that the HIC is the least beneficiary of tourism competitiveness in terms of its contribution to GDP. For the sub-indices, the infrastructure sub-index is explained to be the most significant driver of the tourism determinant for all income group of the countries sampled. Particularly, all the components of the tourism competitiveness are statistically significant for the HIC but Policy and Conditions, which show negative but statistically insignificant effect on the tourism GDP. This could be as a result of the fact that most economic policies often prioritize other sectors of the economy and are likely to benefits them at the expense of the tourism sector specifically in the HIC.

Table 14: Impact of Tourism Competitiveness on Tourism GDP by Income Groups

	Dependent variable: tourism GDP (log)			
Panel A: overall tourism competitiveness				
	(1)	(2)	(3)	(4)
Independent Variables	LIC	LMIC	UMIC	HIC
Tourism competitiveness (log)	0.80***	1.10***	1.19***	0.78***
	(0.26)	(0.24)	(0.24)	(0.13)
GDP (log)	0.97***	0.59***	0.32	0.55***
	(0.15)	(0.16)	(0.21)	(0.086)
Population (log)	-0.022	0.23	0.50**	0.18**
	(0.13)	(0.15)	(0.21)	(0.082)
Exchange rate (log)	-0.062	-0.0071	0.016	-0.026
	(0.042)	(0.029)	(0.030)	(0.021)
Constant	-18.3***	-14.5***	-12.9***	-11.6***
	(1.91)	(1.38)	(1.65)	(0.83)
Observations	72	105	108	156
R-squared	0.843	0.880	0.921	0.952
F-statistics	49.83	113.33	191.24	292.16
	[0.00]	[0.00]	[0.00]	[0.00]
Panel B: Components of tourism competitiveness				
Independent Variables	LIC	LMIC	UMIC	HIC
Enabling Environment	0.14	-0.44	-1.44	2.73**
	(0.90)	(0.76)	(0.91)	(1.24)
Policy and Conditions	0.47	1.43	1.61	-0.13
	(0.91)	(0.97)	(1.11)	(0.78)
Infrastructure	2.24**	2.26***	2.37***	0.95**
	(0.91)	(0.61)	(0.49)	(0.44)
Natural and Cultural Resources	-0.27	0.19	-0.24	0.71***
	(0.61)	(0.41)	(0.35)	(0.24)
GDP (log)	0.88***	0.54***	0.47**	0.35**
	(0.21)	(0.15)	(0.21)	(0.16)
Population (log)	0.19	0.28*	0.50**	0.36**
	(0.17)	(0.14)	(0.20)	(0.16)
Exchange rate (log)	-0.014	0.022	-0.0012	-0.030
	(0.047)	(0.028)	(0.028)	(0.024)
Constant	-20.1***	-14.4***	-14.8***	-12.5***
	(3.61)	(2.45)	(2.63)	(1.28)
Observations	72	105	108	156
R-squared	0.868	0.901	0.936	0.954
F-statistics	34.69	80.74 [0.00]	137.19	173.99
	[0.00]		[0.00]	[0.00]

*LIC=Low-Income Countries; LMIC=Low Middle Income Countries; UMIC=Upper-middle income countries; HIC= High-income countries. Standard errors in parentheses***, ** and * denote 1%, 5% and 10% level of significance respectively.*

Chapter 5

CONCLUSION AND POLICY IMPLICATIONS

The current study assesses the effect of Tourism Competitiveness on the tourism performance of countries across the globe. The study centers on the global perspective and the regional and income levels of the countries. The relation of the tourism sector to the productivity of nations has long been affirmed (WTO 2019). Moreover, sufficient attention has been given to the constraints of Tourism Competitiveness. However, there is a lack of studies correlating the Tourism Competitiveness to tourism performance (Moscardo, 2008). Few studies which realized the relevance are limited to the micro-level and failed to obtain the heterogeneity of the countries and measures of both tourism competitiveness and performance Painter (2000). This study introduced the global perspective of the relationship between tourism competitiveness and tourism performance. Using three-stage least square panel data estimation techniques, the main findings reveals that tourism competitiveness has a significant and positive impact on tourism performance in terms of all regions and income groups of countries across the world. This shows that Tourism Competitiveness is a main driver and motive of the tourism flows and tourism contribution to GDP across the world. Moreover, the effect of the Tourism Competitiveness is greater for developing African and Asian economies than developed European and American countries (OECD, 2006). Considering the income groups, tourism competitiveness has strong effect on tourism performance for the upper-middle income countries (UMIC) than other groups (OECD, 2008). This finding shows that the UMIC are more sensitive to

the changes in the tourism competitiveness and its component pillars than the rest income groups of countries. The principal for this finding is probably that the high-income countries are so developed and rich that their economies do not much depend on the tourism sector as the UMIC economies. Moreover, the low-income countries are so poor that the contribution of the tourism sector to their economies is insignificant. Therefore, the tourism competitiveness does not shave preferable impact on the performance of the tourism sector (Stiglitz, 2012). However, the question is here, which pillar or component of the tourism competitiveness of a specific region or a group of countries should prioritize in order to improve tourism performance? In order to provide an apparent answer to this question, this study considers the components of the tourism competitiveness. The findings of the study revealed that, infrastructure is a global and key driver of tourism performance (Perotti, 1006). By implicating the transport infrastructure development and technology activates the high performance of the tourism industry in terms of an increase in tourist arrivals and an increase in tourism GDP for all regions (except Europe for which the infrastructure component is significant only for the enhancement of the tourism GDP and not for tourist arrivals) and at all levels of income of the countries. Nevertheless, the insignificancy of the infrastructure for Europe shows the fact that the infrastructure in the region is developed to some extent which its further improvement of the infrastructure does not matter for tourist arrivals anymore. The region has long developed world-class airports, seaports and superb tourism service infrastructure, which surpass that of other regions. Hence, the positive image regarding infrastructure has been created and tourist arrivals is no longer sensitive to further improvement in the infrastructure. Alternatively, infrastructure is no longer the key driver of tourist flows in Europe. But for other regions, especially Asia, MENA and Africa,

infrastructure is the major determinants of the tourism performance both in terms of arrivals and tourism GDP (Alesina, 1996). Practically, these regions need to prioritize the development of critical infrastructure such as airports, seaports, roads and travel and tourism service infrastructure for the improvement of the performance of the tourism industry (Benabou, 2001). Furthermore, policy conditions, enabling environment, and Natural and Cultural Resources are also critical determinants of tourism performance. Policy and enabling conditions including prioritization of travel and tourism, international openness, price competitiveness, and environmental sustainability are most relevant for the improvement of tourism performance (Jaeger, 2006). For instance, after slowdown in tourism flows and receipts during 2015-2016 period, Europe refocused on policy conditions such as high degree of market regulatory and travel policy integration centered on European Union and the Schengen area. This reinforces intra-regional travel, which constitutes vast majority of the international tourist arrivals. The Enabling Environment, such as favorable business environment, health and hygiene, safety and security, and availability of ICT has enormous effect on the tourism performance (Arts and J Gelissen, 2001). Natural and cultural resources are also important for tourism performance, especially for the Americas (Piketti, 2014). It is important to note that the natural and cultural resources pillar is the least significant for tourism performance of the low/middle-income regions. This explains the poor performance of the tourism industry in most African countries despite the abundance of natural resources and diverse cultural resources (OECD, 2008). Therefore, we conclude that TC has multifaceted and heterogeneous effects on tourism performance based on the regions and income groups of the countries as well as the measures of tourism performance. Thus, this study suggests that, for countries around the world to promote the performance of the tourism sector,

stakeholders in the travel and tourism industry should give adequate attention to the improvement of the tourism competitiveness and factor in the multidimensional nature of the relationship between TC and tourism performance in their policy frameworks. Specifically, policymakers in Europe (as well as other upper/high-income countries) sustain commitment to the enactment of favorable travel policies and environmental sustainability to maintain the leadership of the region in the development of the tourism industry. In the case of other regions (Africa, Asia, Americas), concerted efforts aimed at developing critical transports and tourism service infrastructure are necessary for improving the performance of the tourism industry. In addition, Americas should enhance the performance of the tourism industry by leveraging on the greatest advantage the region has over other regions in terms of cultural and natural resources given the abundance of UNESCO natural and heritage sites. These policy adoption recommendations will enable each region to increase the welfare-enhancing benefits, such as job creation, higher incomes and poverty reduction, accruable from the better performance of the tourism industry. Furthermore, the study could consider sustainability as a main determinant of competitiveness in order to increase the degree of applicability of the study. For future research the consideration of tourism competitiveness and its impact on sustainability of a destination would be a great state of interest in terms of economic and political debates.

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APPENDICES

Appendix A: List of Sampled Countries

Albania	Ethiopia	Mauritania	Switzerland
Algeria	Finland	Mauritius	Tajikistan
Angola	France	Mexico	Tanzania
Argentina	Gabon	Moldova	Thailand
Armenia	Gambia, The	Mongolia	Trinidad and Tobago
Australia	Georgia	Montenegro	Tunisia
Austria	Germany	Morocco	Turkey
Azerbaijan	Ghana	Mozambique	Uganda
Bahrain	Greece	Myanmar	Ukraine
Bangladesh	Guatemala	Namibia	United Arab Emirates
Barbados	Guinea	Nepal	United Kingdom
Belgium	Guyana	Netherlands	United States
Benin	Haiti	New Zealand	Uruguay
Bhutan	Honduras	Nicaragua	Venezuela
Bolivia	Hong Kong SAR	Nigeria	Vietnam
Bosnia and Herzegovina	Hungary	North Macedonia	Yemen
Botswana	Iceland	Norway	Zambia
Brazil	India	Oman	Zimbabwe
Brunei Darussalam	Indonesia	Pakistan	
Bulgaria	Iran, Islamic Rep.	Panama	
Burkina Faso	Ireland	Paraguay	
Burundi	Israel	Peru	
Cambodia	Italy	Philippines	
Cameroon	Jamaica	Poland	
Canada	Japan	Portugal	
Cape Verde	Jordan	Puerto Rico	
Chad	Kazakhstan	Qatar	
Chile	Kenya	Romania	
China	Korea, Rep.	Russian Federation	
Colombia	Kuwait	Rwanda	
Congo, Democratic Rep.	Kyrgyz Republic	Saudi Arabia	
Costa Rica	Lao PDR	Senegal	
Croatia	Latvia	Serbia	
Cyprus	Lebanon	Seychelles	
Czech Republic	Lesotho	Sierra Leone	
Côte d'Ivoire	Liberia	Singapore	
Denmark	Lithuania	Slovak Republic	
Dominican Republic	Luxembourg	Slovenia	
Ecuador	Madagascar	South Africa	
Egypt	Malawi	Spain	
El Salvador	Malaysia	Sri Lanka	
Estonia	Mali	Suriname	
Eswatini	Malta	Sweden	

Appendix B: Estimation Output

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	228	125	.3681345	0.9777	80.07	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	1.168331	.4062747	2.88	0.005	.3625814	1.974081
lngdp	2.11291	.6439504	3.28	0.001	.8357863	3.390034
lnpop	.4377828	1.580531	0.28	0.782	-2.696828	3.572393
lnexr	.0292468	.2382424	0.12	0.903	-.4432509	.5017445

. reg3 lnita tcci $cont if region==1, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	46	4	.5406556	0.8550	67.81	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	.9100551	.3585108	2.54	0.015	.1860278	1.634082
lngdp	.2620285	.1701481	1.54	0.131	-.0815926	.6056496
lnpop	.1954079	.1496987	1.31	0.199	-.1069149	.4977306
lnexr	.0245043	.0342257	0.72	0.478	-.044616	.0936245
_cons	-5.570441	1.124342	-4.95	0.000	-7.841095	-3.299787

. reg3 lnita tcci $cont if region==2, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	41	4	.8960065	0.6908	22.90	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	2.885444	.5432304	5.31	0.000	1.783721	3.987166
lngdp	-.5876894	.2879914	-2.04	0.049	-1.171763	-.0036157
lnpop	.6606043	.2354367	2.81	0.008	.1831166	1.138092
lnexr	.0911501	.0543283	1.68	0.102	-.0190328	.2013329
_cons	.3070845	2.429039	0.13	0.900	-4.619235	5.233404

```
. reg3  lnita tcci $cont if region==3, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	50	4	1.148027	0.6115	19.67	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	1.353058	.7334746	1.84	0.072	-.124236	2.830352
lngdp	.2476103	.3201019	0.77	0.443	-.397108	.8923285
lnpop	.3201029	.3013701	1.06	0.294	-.2868875	.9270934
lnexr	.087657	.0835883	1.05	0.300	-.0806984	.2560124
_cons	-8.781924	2.278748	-3.85	0.000	-13.37156	-4.192291

```
. reg3  lnita tcci $cont if region==4, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	28	4	.4687583	0.8591	42.68	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	2.674434	.2820594	9.48	0.000	2.09095	3.257919
lngdp	-.3233294	.1145466	-2.82	0.010	-.560287	-.0863717
lnpop	.9654068	.1104037	8.74	0.000	.7370194	1.193794
lnexr	.0020237	.0322983	0.06	0.951	-.0647905	.0688378
_cons	-9.119238	1.967083	-4.64	0.000	-13.18846	-5.050017

```
Endogenous variables:  lnita
Exogenous variables:   tcci lngdp lnpop lnexr

. outreg2 using regionalor, word auto(2) ctitle(MENA)append
regionalor.rtf
dir : seeout

. reg3  lnita tcci $cont if region==5, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	63	4	.6796494	0.7883	58.65	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	2.040152	.2527074	8.07	0.000	1.534303	2.546001
lngdp	.2004028	.123402	1.62	0.110	-.0466132	.4474188
lnpop	.2863624	.1139748	2.51	0.015	.0582171	.5145078
lnexr	-.1234114	.04784	-2.58	0.012	-.2191735	-.0276493
_cons	-8.829701	1.5742	-5.61	0.000	-11.9808	-5.678598

```
Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	228	128	.3665651	0.9786	81.30	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	2.836059	1.501187	1.89	0.062	-.142252	5.814371
lnpcon	2.151987	.9407678	2.29	0.024	.2855304	4.018443
lninfra	.2418363	.6127164	0.39	0.694	-.9737757	1.457448
lnnrcr	1.355609	.6123757	2.21	0.029	.140673	2.570545
lngdp	1.957234	.6385263	3.07	0.003	.6904155	3.224052
lnpop	.8694839	1.568989	0.55	0.581	-2.243345	3.982313
lnexr	-.1294772	.2437379	-0.53	0.596	-.6130462	.3540919

```
. reg3 lnita $tcci $cont if region==1, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	46	7	.4890449	0.8900	53.19	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	4.894123	1.732755	2.82	0.008	1.386344	8.401903
lnpcon	.6442356	1.262505	0.51	0.613	-1.911573	3.200044
lninfra	1.679274	.7015607	2.39	0.022	.2590384	3.099509
lnnrcr	-.3643464	.3587172	-1.02	0.316	-1.090531	.3618385
lngdp	-.2049365	.2670048	-0.77	0.448	-.7454595	.3355866
lnpop	.907663	.2976037	3.05	0.004	.3051959	1.51013
lnexr	.0339823	.0341654	0.99	0.326	-.0351819	.1031465
_cons	-11.91345	2.285495	-5.21	0.000	-16.5402	-7.286711

```
. reg3  lnita $tcci $cont if region==2, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	41	7	.890071	0.7203	15.08	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	1.012549	2.706775	0.37	0.711	-4.494426	6.519523
lnpcon	1.644614	1.953268	0.84	0.406	-2.32934	5.618568
lninfra	4.68377	1.344796	3.48	0.001	1.947762	7.419777
lnnrcr	1.663691	.9146463	1.82	0.078	-.1971707	3.524553
lngdp	-.5530716	.3191029	-1.73	0.092	-1.202291	.0961482
lnpop	.616564	.3496516	1.76	0.087	-.0948075	1.327936
lnexr	.115441	.0572779	2.02	0.052	-.0010919	.2319738
_cons	-.1256209	5.833142	-0.02	0.983	-11.99324	11.742

```
Endogenous variables:  lnita
Exogenous variables:   lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	50	7	1.1266	0.6508	13.31	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	2.011903	3.246171	0.62	0.539	-4.539135	8.562942
lnpcon	4.934881	2.950592	1.67	0.102	-1.019654	10.88942
lninfra	2.792589	1.871497	1.49	0.143	-.9842442	6.569423
lnnrcr	-.2131604	1.176767	-0.18	0.857	-2.587972	2.161651
lngdp	-.065284	.4106439	-0.16	0.874	-.893997	.763429
lnpop	.7838445	.4743694	1.65	0.106	-.1734717	1.741161
lnexr	.0898272	.0799985	1.12	0.268	-.0716163	.2512707
_cons	-16.72462	5.268714	-3.17	0.003	-27.35731	-6.091923

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	28	7	.4766028	0.8733	27.58	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	4.530982	2.102959	2.15	0.044	.1442863	8.917678
lnpcon	.8053147	1.694235	0.48	0.640	-2.728798	4.339428
lninfra	3.15283	.8056914	3.91	0.001	1.472187	4.833473
lnnrcr	1.095193	.9580532	1.14	0.266	-.9032706	3.093657
lngdp	-.5807554	.2870679	-2.02	0.057	-1.179568	.0180576
lnpop	1.266292	.275715	4.59	0.000	.6911603	1.841423
lnexr	.0357964	.042601	0.84	0.411	-.0530677	.1246605
_cons	-10.77539	3.999904	-2.69	0.014	-19.11904	-2.431735

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	63	7	.668489	0.8058	37.34	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	3.253213	1.012107	3.21	0.002	1.224906	5.28152
lnpcon	1.478832	1.246635	1.19	0.241	-1.01948	3.977143
lninfra	1.40867	.7265076	1.94	0.058	-.0472837	2.864624
lnnrcr	.8528407	.6012325	1.42	0.162	-.3520562	2.057738
lngdp	.215785	.1404242	1.54	0.130	-.0656313	.4972013
lnpop	.3125419	.1254372	2.49	0.016	.0611603	.5639236
lnexr	-.1086449	.0475796	-2.28	0.026	-.2039965	-.0132933
_cons	-11.60783	3.287024	-3.53	0.001	-18.19518	-5.020491

Endogenous variables: lnita
Exogenous variables: lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	228	125	.325854	0.9903	186.69	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
tcci	.883483	.3596137	2.46	0.016	.170274	1.596692
lngdp	2.032882	.5699922	3.57	0.001	.9024374	3.163328
lnpop	1.915107	1.399006	1.37	0.174	-.8594913	4.689705
lnexr	-.5405892	.2108801	-2.56	0.012	-.9588202	-.1223583

```
. reg3 lnitr tcci $cont if region==1, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	46	4	.6487501	0.8471	63.71	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
tcci	1.532865	.4301887	3.56	0.001	.6640815	2.401649
lngdp	.1999314	.2041662	0.98	0.333	-.2123907	.6122534
lnpop	.2074873	.1796283	1.16	0.255	-.1552795	.5702541
lnexr	.0082622	.0410685	0.20	0.842	-.0746774	.0912018
_cons	-6.668889	1.349134	-4.94	0.000	-9.39352	-3.944259

```
Endogenous variables:  lnitr
Exogenous variables:   tcci lngdp lnpop lnexr

. outreg2 using regionalor,  word auto(2) ctitle(Americas)append
regionalor.rtf
dir : seeout

. reg3  lnitr tcci $cont if region==2, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	41	4	.7200792	0.8751	71.81	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
tcci	3.795583	.4365693	8.69	0.000	2.91018	4.680987
lngdp	-.7575265	.2314455	-3.27	0.002	-1.22692	-.2881334
lnpop	.8628415	.1892096	4.56	0.000	.4791066	1.246576
lnexr	.0211119	.0436611	0.48	0.632	-.067437	.1096607
_cons	-2.087326	1.952107	-1.07	0.292	-6.046383	1.87173

```
Endogenous variables:  lnitr
Exogenous variables:   tcci lngdp lnpop lnexr
```

```
. reg3  lnitr tcci $cont if region==3, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	50	4	1.204334	0.6813	26.72	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
tcci	.495245	.769449	0.64	0.523	-1.054505	2.044995
lngdp	.9640701	.3358017	2.87	0.006	.2877307	1.64041
lnpop	-.5060178	.3161512	-1.60	0.116	-1.142779	.1307434
lnexr	-.0270234	.087688	-0.31	0.759	-.2036361	.1495893
_cons	-10.51341	2.390512	-4.40	0.000	-15.32815	-5.698671

```
Endogenous variables:  lnitr
Exogenous variables:   tcci lngdp lnpop lnexr

. outreg2 using regionalor, word auto(2) ctitle(Europe)append
regionalor.rtf
dir : seeout

. reg3  lnitr tcci $cont if region==4, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	28	4	.7612773	0.7106	17.18	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
tcci	3.242881	.4580727	7.08	0.000	2.295285	4.190476
lngdp	-.3427842	.186027	-1.84	0.078	-.7276104	.0420419
lnpop	.4935137	.1792988	2.75	0.011	.1226059	.8644216
lnexr	.104197	.0524534	1.99	0.059	-.0043111	.2127051
_cons	-3.408664	3.1946	-1.07	0.297	-10.0172	3.19987

```
. reg3  lnitr tcci $cont if region==5, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	63	4	1.408714	0.6378	27.73	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
tcci	3.275365	.5237883	6.25	0.000	2.226889	4.323841
lngdp	.2117885	.2557762	0.83	0.411	-.3002032	.7237801
lnpop	.4185546	.2362363	1.77	0.082	-.0543238	.891433
lnexr	-.1098243	.0991582	-1.11	0.273	-.3083111	.0886624
_cons	-16.23137	3.262854	-4.97	0.000	-22.76269	-9.700062

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	228	128	.3277791	0.9905	185.62	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	-.3710452	1.342347	-0.28	0.783	-3.034224	2.292133
lnpcon	1.297604	.8412258	1.54	0.126	-.3713642	2.966572
lninfra	1.043672	.5478854	1.90	0.060	-.043317	2.130661
lnnrcr	1.031697	.5475807	1.88	0.062	-.0546874	2.118082
lngdp	1.924083	.5709643	3.37	0.001	.7913064	3.05686
lnpop	2.162673	1.402975	1.54	0.126	-.6207902	4.946136
lnexr	-.5528193	.2179482	-2.54	0.013	-.9852223	-.1204163

. reg3 lnitr $tcci $cont if region==1, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	46	7	.5522239	0.8973	57.42	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	3.883016	1.956608	1.98	0.054	-.0779288	7.843961
lnpcon	.5963765	1.425607	0.42	0.678	-2.289613	3.482366
lninfra	3.667542	.7921944	4.63	0.000	2.063829	5.271256
lnnrcr	-.4045886	.4050594	-1.00	0.324	-1.224588	.4154112
lngdp	-.2981387	.3014988	-0.99	0.329	-.9084912	.3122138
lnpop	1.049439	.3360507	3.12	0.003	.3691396	1.729738
lnexr	.0445048	.0385792	1.15	0.256	-.0335946	.1226043
_cons	-12.86299	2.580755	-4.98	0.000	-18.08746	-7.638526

Endogenous variables: lnitr
Exogenous variables: lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

. outreg2 using regionalsi, word auto(2) ctitle(Americas)append
regionalsi.rtf
dir : seeout

. reg3 lnitr $tcci $cont if region==2, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	41	7	.6613091	0.9034	54.80	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	1.616282	2.011092	0.80	0.427	-2.475316	5.707879
lnpcon	1.783415	1.451248	1.23	0.228	-1.169172	4.736002
lninfra	5.278193	.9991627	5.28	0.000	3.245382	7.311005
lnnrcr	2.963576	.6795682	4.36	0.000	1.580984	4.346168
lngdp	-.6976648	.2370886	-2.94	0.006	-1.180025	-.2153044
lnpop	.7148571	.2597858	2.75	0.010	.186319	1.243395
lnexr	.0366042	.0425566	0.86	0.396	-.0499779	.1231863
_cons	-1.04617	4.333935	-0.24	0.811	-9.863628	7.771288

```
. reg3  lnitr $tcci $cont if region==3, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	50	7	1.168437	0.7200	18.37	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	1.223415	3.36672	0.36	0.718	-5.570901	8.017731
lnpcon	1.842644	3.060164	0.60	0.550	-4.333017	8.018305
lninfra	4.624417	1.940996	2.38	0.022	.7073278	8.541505
lnnrcr	-2.183726	1.220467	-1.79	0.081	-4.646728	.2792755
lngdp	.4832636	.4258935	1.13	0.263	-.3762243	1.342751
lnpop	.2542432	.4919854	0.52	0.608	-.7386236	1.24711
lnexr	-.0183838	.0829693	-0.22	0.826	-.1858226	.149055
_cons	-17.30318	5.464371	-3.17	0.003	-28.33073	-6.275631

```
. reg3  lnitr $tcci $cont if region==4, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	28	7	.6364118	0.8241	18.74	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	2.183719	2.8081	0.78	0.446	-3.673874	8.041312
lnpcon	1.057863	2.262327	0.47	0.645	-3.661269	5.776995
lninfra	6.034366	1.075847	5.61	0.000	3.790189	8.278543
lnnrcr	-.2329218	1.279297	-0.18	0.857	-2.901488	2.435644
lngdp	-.4935799	.3833242	-1.29	0.213	-1.29318	.3060203
lnpop	1.041658	.3681646	2.83	0.010	.2736804	1.809636
lnexr	.1195875	.0568855	2.10	0.048	.0009265	.2382485
_cons	-9.052395	5.341106	-1.69	0.106	-20.19375	2.088957

```
Endogenous variables:  lnitr
Exogenous variables:   lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

. outreg2 using regionalsi, word auto(2) ctitle(MENA)append
regionalsi.rtf
dir : seeout

. reg3  lnitr $tcci $cont if region==5, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	63	7	1.23617	0.7355	25.03	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	1.335338	1.871588	0.71	0.479	-2.415407	5.086083
lnpcon	10.27843	2.305276	4.46	0.000	5.658558	14.89831
lninfra	3.235715	1.343458	2.41	0.019	.5433654	5.928064
lnnrcr	-1.930636	1.111799	-1.74	0.088	-4.158731	.2974593
lngdp	.6758825	.2596723	2.60	0.012	.1554875	1.196277
lnpop	.5028195	.2319584	2.17	0.035	.0379646	.9676745
lnexr	-.0107595	.0879841	-0.12	0.903	-.1870837	.1655646
_cons	-35.86899	6.078365	-5.90	0.000	-48.0503	-23.68767

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	224	123	.15462	0.9971	618.21	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	-.1567805	.1711499	-0.92	0.362	-.4962958	.1827348
lngdp	.5761932	.2722959	2.12	0.037	.0360313	1.116355
lnpop	1.297316	.6688643	1.94	0.055	-.029531	2.624163
lnexr	.0907849	.1009372	0.90	0.371	-.1094473	.2910171

. reg3 lntgdp tcci $cont if region==1, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	46	4	.4635972	0.9523	229.69	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	1.347431	.3074131	4.38	0.000	.7265981	1.968265
lngdp	.3880259	.1458973	2.66	0.011	.0933804	.6826715
lnpop	.3573777	.1283625	2.78	0.008	.0981443	.616611
lnexr	-.0031624	.0293476	-0.11	0.915	-.0624311	.0561062
_cons	-12.72046	.9640917	-13.19	0.000	-14.66748	-10.77344

Endogenous variables: lntgdp
Exogenous variables: tcci lngdp lnpop lnexr

. outreg2 using regionalsi, word auto(2) ctitle(Americas)append
regionalsi.rtf
dir : seeout

. reg3 lntgdp tcci $cont if region==2, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	41	4	.4584491	0.9368	151.86	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	1.028652	.2779483	3.70	0.001	.4649468	1.592357
lngdp	.3964478	.1473532	2.69	0.011	.0976017	.6952939
lnpop	.3170658	.1204631	2.63	0.012	.0727553	.5613763
lnexr	-.0255437	.0277975	-0.92	0.364	-.0819197	.0308322
_cons	-10.8654	1.242838	-8.74	0.000	-13.38599	-8.344804

```
. reg3  lntgdp tcci $cont if region==3, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	48	4	.5003807	0.9347	171.82	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	.9086109	.3227337	2.82	0.007	.2577564	1.559465
lngdp	.6979037	.1460138	4.78	0.000	.4034387	.9923686
lnpop	.0547662	.1375802	0.40	0.693	-.2226907	.332223
lnexr	-.0289417	.03683	-0.79	0.436	-.1032164	.0453331
_cons	-14.23924	1.032666	-13.79	0.000	-16.32181	-12.15667

```
Endogenous variables:  lntgdp
Exogenous variables:   tcci lngdp lnpop lnexr

. outreg2 using regionalsi, word auto(2) ctitle(Europe)append
regionalsi.rtf
dir : seeout

. reg3  lntgdp tcci $cont if region==4, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	28	4	.2793836	0.9091	70.01	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	.7200674	.1681096	4.28	0.000	.3723062	1.067829
lngdp	.4029147	.0682707	5.90	0.000	.2616861	.5441433
lnpop	.3238812	.0658014	4.92	0.000	.1877605	.4600018
lnexr	.0188119	.01925	0.98	0.339	-.0210099	.0586336
_cons	-9.78178	1.172397	-8.34	0.000	-12.20707	-7.356493

```
. reg3  lntgdp tcci $cont if region==5, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	61	4	.4423852	0.9075	149.69	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	1.337874	.1713477	7.81	0.000	.9946232	1.681124
lngdp	.6054582	.0802147	7.55	0.000	.4447689	.7661475
lnpop	.1868847	.0743269	2.51	0.015	.03799	.3357793
lnexr	-.0307173	.0319076	-0.96	0.340	-.0946359	.0332014
_cons	-15.09115	1.059675	-14.24	0.000	-17.21394	-12.96837

```
Endogenous variables:  lntgdp
Exogenous variables:   tcci lngdp lnpop lnexr
```

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	224	126	.15651	0.9971	607.04	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	-.0777358	.644426	-0.12	0.904	-1.356578	1.201107
lnpcon	-.0165531	.4048686	-0.04	0.967	-.8200016	.7868954
lninfra	-.3312436	.2643217	-1.25	0.213	-.8557813	.1932942
lnnrcr	.1165985	.2621751	0.44	0.657	-.4036794	.6368764
lngdp	.5651903	.2742113	2.06	0.042	.021027	1.109354
lnpop	1.405519	.6749438	2.08	0.040	.0661148	2.744923
lnexr	.0574412	.1045102	0.55	0.584	-.1499558	.2648383

. reg3 lntgdp $tcci $cont if region==1, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	46	7	.4468613	0.9589	153.48	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	2.308367	1.583293	1.46	0.153	-.8968422	5.513576
lnpcon	.3962259	1.153605	0.34	0.733	-1.939126	2.731578
lninfra	2.25589	.6410461	3.52	0.001	.95816	3.55362
lnnrcr	.6734595	.3277753	2.05	0.047	.0099131	1.337006
lngdp	.147739	.2439738	0.61	0.548	-.3461601	.6416381
lnpop	.6932482	.2719333	2.55	0.015	.142748	1.243748
lnexr	.0144365	.0312184	0.46	0.646	-.0487618	.0776348
_cons	-14.54886	2.088355	-6.97	0.000	-18.77651	-10.3212

Endogenous variables: lntgdp
Exogenous variables: lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

. outreg2 using regionalsi, word auto(2) ctitle(Americas)append
regionalsi.rtf
dir : seeout

. reg3 lntgdp $tcci $cont if region==2, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	41	7	.4263573	0.9499	110.98	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	2.052537	1.296585	1.58	0.123	-.5853855	4.69046
lnpcon	.7574809	.9356446	0.81	0.424	-1.146102	2.661064
lninfra	2.126145	.6441772	3.30	0.002	.8155567	3.436733
lnnrcr	-.1115098	.4381292	-0.25	0.801	-1.00289	.7798708
lngdp	.2572611	.1528551	1.68	0.102	-.0537249	.5682471
lnpop	.5601601	.1674883	3.34	0.002	.2194026	.9009177
lnexr	-.0185574	.027437	-0.68	0.504	-.0743784	.0372636
_cons	-14.22696	2.794162	-5.09	0.000	-19.91172	-8.542192

Endogenous variables: lntgdp
Exogenous variables: lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

```
. reg3  lntgdp $tcci $cont if region==3, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	48	7	.4579583	0.9491	127.95	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	-1.251446	1.321344	-0.95	0.349	-3.921982	1.41909
lnpcon	.9376649	1.199713	0.78	0.439	-1.487046	3.362375
lninfra	2.155296	.7711279	2.79	0.008	.596788	3.713803
lnnrcr	.3741271	.4967992	0.75	0.456	-.6299415	1.378196
lngdp	.6746758	.1685884	4.00	0.000	.3339459	1.015406
lnpop	.0433989	.1927431	0.23	0.823	-.3461494	.4329471
lnexr	-.0315941	.0328519	-0.96	0.342	-.0979902	.034802
_cons	-12.33411	2.169671	-5.68	0.000	-16.71918	-7.949041

```
Endogenous variables:  lntgdp
Exogenous variables:   lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

. outreg2 using regionalsi, word auto(2) ctitle(Europe)append
regionalsi.rtf
dir : seeout

. reg3  lntgdp $tcci $cont if region==4, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	28	7	.2694291	0.9265	50.42	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	-1.384288	1.188827	-1.16	0.258	-3.864139	1.095563
lnpcon	1.534057	.9577712	1.60	0.125	-.4638188	3.531932
lninfra	1.246222	.4554668	2.74	0.013	.2961351	2.196309
lnnrcr	-.7696538	.5415987	-1.42	0.171	-1.899409	.3601013
lngdp	.6300557	.1622828	3.88	0.001	.2915397	.9685718
lnpop	.3137128	.1558649	2.01	0.058	-.0114157	.6388413
lnexr	-.0066407	.0240828	-0.28	0.786	-.0568766	.0435952
_cons	-13.70682	2.261193	-6.06	0.000	-18.42359	-8.990059

```
Endogenous variables:  lntgdp
Exogenous variables:   lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

. outreg2 using regionalsi, word auto(2) ctitle(MENA)append
regionalsi.rtf
dir : seeout

. reg3  lntgdp $tcci $cont if region==5, small

Three-stage least-squares regression
```

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	61	7	.3951527	0.9302	116.10	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	1.000454	.617269	1.62	0.111	-.2376313	2.238539
lnpcon	1.387216	.7431657	1.87	0.067	-.1033854	2.877818
lninfra	2.261153	.4350597	5.20	0.000	1.388533	3.133772
lnnrcr	-.6148286	.3549175	-1.73	0.089	-1.326703	.0970459
lngdp	.6630848	.0830632	7.98	0.000	.496481	.8296886
lnpop	.3151214	.075442	4.18	0.000	.1638038	.466439
lnexr	.0059744	.0290175	0.21	0.838	-.0522274	.0641763
_cons	-19.36705	1.961621	-9.87	0.000	-23.30157	-15.43254

```
Endogenous variables:  lntgdp
Exogenous variables:   lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr
```

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	228	125	.3681345	0.9777	80.07	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	1.168331	.4062747	2.88	0.005	.3625814	1.974081
lngdp	2.11291	.6439504	3.28	0.001	.8357863	3.390034
lnpop	.4377828	1.580531	0.28	0.782	-2.696828	3.572393
lnexr	.0292468	.2382424	0.12	0.903	-.4432509	.5017445

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	39	4	1.050711	0.3991	6.48	0.0005

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	1.715826	.6223401	2.76	0.009	.4510783	2.980573
lngdp	.430128	.3544598	1.21	0.233	-.290221	1.150477
lnpop	.2360884	.3015774	0.78	0.439	-.3767907	.8489675
lnexr	.0080413	.0895434	0.09	0.929	-.1739328	.1900154
_cons	-13.21742	4.433459	-2.98	0.005	-22.22729	-4.207545

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	64	4	.9544453	0.5849	22.54	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	2.324781	.3734642	6.22	0.000	1.57748	3.072081
lngdp	-.0809844	.2642134	-0.31	0.760	-.6096743	.4477054
lnpop	.2965208	.2468617	1.20	0.234	-.1974483	.7904899
lnexr	.0112677	.0464886	0.24	0.809	-.0817558	.1042912
_cons	-3.559909	2.178583	-1.63	0.108	-7.919244	.7994258

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	66	4	.6868891	0.7835	59.70	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	1.380322	.2959092	4.66	0.000	.7886145	1.972029
lngdp	.1576048	.2527819	0.62	0.535	-.3478639	.6630734
lnpop	.2758319	.2562386	1.08	0.286	-.2365489	.7882128
lnexr	-.0024928	.0368895	-0.07	0.946	-.076258	.0712723
_cons	-5.564509	2.002564	-2.78	0.007	-9.568883	-1.560135

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	59	4	.7179267	0.7519	44.70	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
tcci	1.034154	.2608466	3.96	0.000	.5111878	1.55712
lngdp	.2927008	.1740695	1.68	0.098	-.0562875	.6416891
lnpop	.1912085	.1661397	1.15	0.255	-.1418815	.5242985
lnexr	.0553701	.0431638	1.28	0.205	-.0311681	.1419082
_cons	-6.836165	1.682163	-4.06	0.000	-10.2087	-3.463631

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	228	7	.8363313	0.7545	100.08	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	2.607248	.6815428	3.83	0.000	1.26406	3.950437
lnpcon	3.260056	.8003349	4.07	0.000	1.682751	4.83736
lninfra	1.525708	.4822056	3.16	0.002	.5753747	2.476042
lnnrcr	.0943462	.2970762	0.32	0.751	-.4911332	.6798256
lngdp	.138508	.0974093	1.42	0.156	-.0534667	.3304827
lnpop	.4168768	.1012519	4.12	0.000	.217329	.6164246
lnexr	.0154056	.0243566	0.63	0.528	-.0325965	.0634078
_cons	-13.11885	1.628116	-8.06	0.000	-16.32755	-9.910154

Endogenous variables: lnita
Exogenous variables: lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

. outreg2 using incomegroupsi, word auto(2) ctitle(allita)replace keep($tcci $cont)
incomegroupsi.rtf
dir : seeout

. reg3 lnita $tcci $cont if incomegroup==1, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	39	7	1.024696	0.4789	5.12	0.0006

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	-.3431253	1.979483	-0.17	0.864	-4.380308	3.694057
lnpcon	2.499756	2.154392	1.16	0.255	-1.894156	6.893668
lninfra	4.072398	2.003527	2.03	0.051	-.0138214	8.158617
lnnrcr	-.6253069	1.45115	-0.43	0.670	-3.584947	2.334333
lngdp	.3121775	.4877732	0.64	0.527	-.6826425	1.306998
lnpop	.5837065	.4010629	1.46	0.156	-.2342668	1.40168
lnexr	.061116	.1027776	0.59	0.556	-.1485004	.2707323
_cons	-17.23703	8.625218	-2.00	0.055	-34.82828	.3542205

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	64	7	.9314336	0.6247	15.22	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	3.783849	1.208799	3.13	0.003	1.362333	6.205365
lnpcon	3.390639	1.648204	2.06	0.044	.0888884	6.692389
lninfra	1.042589	1.021647	1.02	0.312	-1.004015	3.089193
lnnrcr	.9274534	.6961842	1.33	0.188	-.4671711	2.322078
lngdp	-.0110879	.2592939	-0.04	0.966	-.530516	.5083402
lnpop	.3319436	.2434425	1.36	0.178	-.1557303	.8196175
lnexr	.0110198	.0475312	0.23	0.818	-.0841966	.1062361
_cons	-9.97378	4.047665	-2.46	0.017	-18.08223	-1.865332

Endogenous variables: lnita
Exogenous variables: lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

. outreg2 using incomegroupsi, word auto(2) ctitle(LMIC)append
incomegroupsi.rtf
dir : seeout

. reg3 lnita $tcci $cont if incomegroup==3, small

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnita	66	7	.585813	0.8503	53.54	0.0000

lnita	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnita						
lneenv	1.07622	1.02556	1.05	0.298	-.9766612	3.129102
lnpcon	1.245925	1.243794	1.00	0.321	-1.243798	3.735649
lninfra	3.030852	.5539467	5.47	0.000	1.922008	4.139697
lnnrcr	-.3891859	.396012	-0.98	0.330	-1.18189	.4035181
lngdp	.1709915	.2321043	0.74	0.464	-.2936157	.6355987
lnpop	.4648965	.2259636	2.06	0.044	.0125813	.9172118
lnexr	.0028775	.031804	0.09	0.928	-.0607852	.0665402
_cons	-10.56859	2.952224	-3.58	0.001	-16.47811	-4.659068

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	66	4	1.002791	0.7303	44.67	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
tcci	2.874463	.4319987	6.65	0.000	2.010628	3.738298
lngdp	-.856341	.369037	-2.32	0.024	-1.594276	-.118406
lnpop	1.225197	.3740835	3.28	0.002	.4771708	1.973223
lnexr	.0296992	.0538551	0.55	0.583	-.0779908	.1373891
_cons	-1.67791	2.923548	-0.57	0.568	-7.523906	4.168086

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	59	4	.591337	0.8653	94.73	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
tcci	1.471769	.2148524	6.85	0.000	1.041016	1.902522
lngdp	.4131208	.1433764	2.88	0.006	.1256685	.7005732
lnpop	.0199422	.1368448	0.15	0.885	-.2544152	.2942995
lnexr	-.0426531	.0355528	-1.20	0.235	-.1139322	.028626
_cons	-8.830359	1.385553	-6.37	0.000	-11.60822	-6.052493

Endogenous variables: lnitr
Exogenous variables: tcci lngdp lnpop lnexr

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	228	7	1.035497	0.7913	123.50	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	1.437818	.8438466	1.70	0.090	-.2252393	3.100876
lnpcon	5.612847	.9909281	5.66	0.000	3.65992	7.565773
lninfra	3.330946	.5970389	5.58	0.000	2.154299	4.507594
lnnrcr	-.5080106	.3678225	-1.38	0.169	-1.232917	.216896
lngdp	.2688351	.1206065	2.23	0.027	.0311432	.506527
lnpop	.4418801	.1253642	3.52	0.001	.1948116	.6889486
lnexr	.0110397	.0301569	0.37	0.715	-.0483938	.0704731
_cons	-20.29799	2.015838	-10.07	0.000	-24.27081	-16.32516

Endogenous variables: lnitr
Exogenous variables: lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	39	7	1.308234	0.7508	16.78	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	-2.894898	2.527216	-1.15	0.261	-8.049188	2.259393
lnpcon	16.17873	2.750523	5.88	0.000	10.569	21.78846
lninfra	4.546412	2.557912	1.78	0.085	-.6704842	9.763308
lnnrcr	-5.155979	1.85269	-2.78	0.009	-8.934565	-1.377392
lngdp	2.075858	.6227425	3.33	0.002	.8057668	3.34595
lnpop	-.2983563	.512039	-0.58	0.564	-1.342667	.7459542
lnexr	.363084	.1312167	2.77	0.009	.0954658	.6307022
_cons	-58.26962	11.01186	-5.29	0.000	-80.72846	-35.81079

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	64	7	.7412337	0.8140	40.01	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	4.336697	.9619611	4.51	0.000	2.409657	6.263737
lnpcon	1.348939	1.311639	1.03	0.308	-1.27859	3.976467
lninfra	1.595347	.8130251	1.96	0.055	-.0333377	3.224032
lnnrcr	1.560189	.5540225	2.82	0.007	.4503483	2.670029
lngdp	.2857571	.2063458	1.38	0.172	-.1276032	.6991174
lnpop	.1383007	.1937312	0.71	0.478	-.2497896	.526391
lnexr	.0092641	.0378252	0.24	0.807	-.0665089	.0850372
_cons	-13.59445	3.221127	-4.22	0.000	-20.04715	-7.141762

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	66	7	.6614707	0.8884	75.07	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	1.382034	1.158011	1.19	0.238	-.9359769	3.700045
lnpcon	3.952727	1.404429	2.81	0.007	1.141456	6.763998
lninfra	5.977247	.6254888	9.56	0.000	4.725195	7.229299
lnnrcr	-1.201454	.4471569	-2.69	0.009	-2.096535	-.3063718
lngdp	-.6533829	.2620805	-2.49	0.016	-1.177994	-.1287717
lnpop	1.503034	.2551468	5.89	0.000	.9923019	2.013765
lnexr	.0218414	.0359115	0.61	0.545	-.0500433	.0937262
_cons	-14.36606	3.333504	-4.31	0.000	-21.03879	-7.693328

Endogenous variables: lnitr
Exogenous variables: lneenv lnpcon lninfra lnnrcr lngdp lnpop lnexr

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lnitr	59	7	.4945064	0.9110	86.29	0.0000

lnitr	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnitr						
lneenv	7.94372	1.707269	4.65	0.000	4.516235	11.37121
lnpcon	.545995	1.073678	0.51	0.613	-1.609503	2.701493
lninfra	2.381857	.6129317	3.89	0.000	1.151346	3.612369
lnnrcr	.6044352	.3268923	1.85	0.070	-.0518284	1.260699
lngdp	-.3707166	.2206001	-1.68	0.099	-.8135898	.0721566
lnpop	.9006356	.2188138	4.12	0.000	.4613486	1.339923
lnexr	-.0660117	.0331415	-1.99	0.052	-.1325461	.0005227
_cons	-14.31417	1.771514	-8.08	0.000	-17.87063	-10.7577

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	224	123	.15462	0.9971	618.21	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	-.1567805	.1711499	-0.92	0.362	-.4962958	.1827348
lngdp	.5761932	.2722959	2.12	0.037	.0360313	1.116355
lnpop	1.297316	.6688643	1.94	0.055	-.029531	2.624163
lnexr	.0907849	.1009372	0.90	0.371	-.1094473	.2910171

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	37	4	.4460964	0.8434	49.83	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	.7971548	.2636582	3.02	0.005	.2601005	1.334209
lngdp	.9714211	.1522315	6.38	0.000	.6613357	1.281506
lnpop	-.0217433	.1296723	-0.17	0.868	-.2858771	.2423904
lnexr	-.0618858	.0422748	-1.46	0.153	-.1479967	.0242251
_cons	-18.2686	1.90942	-9.57	0.000	-22.15796	-14.37924

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	62	4	.5898546	0.8797	113.33	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	1.101082	.2354174	4.68	0.000	.6296671	1.572497
lngdp	.5853967	.1631361	3.59	0.001	.2587223	.9120711
lnpop	.2250384	.1523545	1.48	0.145	-.0800462	.530123
lnexr	-.0070875	.0286922	-0.25	0.806	-.0645427	.0503677
_cons	-14.48316	1.378542	-10.51	0.000	-17.24364	-11.72268

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	66	4	.5647035	0.9206	191.24	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	1.194677	.2432721	4.91	0.000	.7082241	1.68113
lngdp	.3245759	.2078164	1.56	0.123	-.0909787	.7401305
lnpop	.4953289	.2106583	2.35	0.022	.0740917	.9165661
lnexr	.0159681	.0303275	0.53	0.600	-.0446755	.0766117
_cons	-12.85926	1.646343	-7.81	0.000	-16.15133	-9.567195

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	59	4	.355428	0.9519	292.16	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
tcci	.7840712	.1291388	6.07	0.000	.5251635	1.042979
lngdp	.549899	.0861776	6.38	0.000	.3771234	.7226746
lnpop	.1754376	.0822517	2.13	0.037	.0105329	.3403424
lnexr	-.0261359	.0213693	-1.22	0.227	-.0689788	.016707
_cons	-11.59798	.8327978	-13.93	0.000	-13.26764	-9.928318

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	224	7	.484058	0.9384	487.78	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	-.3432972	.4108746	-0.84	0.404	-1.153134	.4665396
lnpcon	1.24447	.4667618	2.67	0.008	.3244787	2.164461
lninfra	1.940762	.2821238	6.88	0.000	1.384694	2.49683
lnnrcr	.1332528	.1721871	0.77	0.440	-.2061292	.4726348
lngdp	.5964945	.0579369	10.30	0.000	.4823005	.7106886
lnpop	.2630218	.060232	4.37	0.000	.1443041	.3817396
lnexr	-.0046692	.014303	-0.33	0.744	-.0328604	.0235221
_cons	-15.10279	.9460202	-15.96	0.000	-16.9674	-13.23818

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	37	7	.4306258	0.8678	34.69	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	.1366461	.8975785	0.15	0.880	-1.699108	1.9724
lnpcon	.4733298	.9068524	0.52	0.606	-1.381392	2.328051
lninfra	2.235752	.9147113	2.44	0.021	.3649574	4.106547
lnnrcr	-.2712531	.605972	-0.45	0.658	-1.510605	.9680988
lngdp	.8838868	.2053354	4.30	0.000	.4639289	1.303845
lnpop	.1885657	.1700213	1.11	0.277	-.159167	.5362984
lnexr	-.01449	.0469028	-0.31	0.760	-.110417	.0814371
_cons	-20.11466	3.610348	-5.57	0.000	-27.49865	-12.73067

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	62	7	.5493185	0.9011	80.74	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	-.4402265	.7594491	-0.58	0.565	-1.96283	1.082377
lnpcon	1.434617	.9738235	1.47	0.147	-.5177815	3.387016
lninfra	2.259849	.6059042	3.73	0.000	1.045084	3.474614
lnnrcr	.1868147	.4112772	0.45	0.651	-.6377464	1.011376
lngdp	.5356394	.1526322	3.51	0.001	.2296303	.8416485
lnpop	.2757234	.1443842	1.91	0.061	-.0137494	.5651962
lnexr	.0221065	.0279794	0.79	0.433	-.0339889	.0782018
_cons	-14.36828	2.449293	-5.87	0.000	-19.27882	-9.457746

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	66	7	.5210862	0.9357	137.19	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	-1.436872	.9122453	-1.58	0.121	-3.26293	.389185
lnpcon	1.606304	1.106366	1.45	0.152	-.6083281	3.820937
lninfra	2.367617	.4927408	4.80	0.000	1.381289	3.353945
lnnrcr	-.2400779	.3522564	-0.68	0.498	-.9451956	.4650399
lngdp	.4704481	.2064589	2.28	0.026	.0571756	.8837206
lnpop	.499691	.2009967	2.49	0.016	.0973523	.9020297
lnexr	-.0011707	.02829	-0.04	0.967	-.0577993	.0554579
_cons	-14.77838	2.626031	-5.63	0.000	-20.03495	-9.521806

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
lntgdp	59	7	.3586029	0.9538	173.99	0.0000

lntgdp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lntgdp						
lneenv	2.733565	1.238066	2.21	0.032	.248044	5.219086
lnpcon	-.1344635	.7786025	-0.17	0.864	-1.697573	1.428646
lninfra	.9520038	.4444818	2.14	0.037	.0596694	1.844338
lnnrcr	.7122902	.2370536	3.00	0.004	.2363853	1.188195
lngdp	.3467319	.1599733	2.17	0.035	.025572	.6678918
lnpop	.364122	.1586779	2.29	0.026	.0455627	.6826812
lnexr	-.0302391	.0240333	-1.26	0.214	-.0784881	.0180098
_cons	-12.47207	1.284655	-9.71	0.000	-15.05112	-9.893016

Appendix C: STATA Commands dofile

```
**********************************************************************
*THREE-STAGE LEAST SQUARE REGRESSIONS
**********************************************************************
**********************************************************************
*overall TTCI and ITA BY  REGIONS
**********************************************************************
global cont lngdp  lnpop lnexr
reg3  lnita tcci $cont cdum* ydum*, small
outreg2 using regionalor, word auto(2) ctitle(allita)replace keep(tcci $cont )
reg3 lnita tcci $cont if region==1, small
outreg2 using regionalor,  word auto(2) ctitle(Americas)append
reg3  lnita tcci $cont if region==2, small
outreg2 using regionalor, word auto(2) ctitle(Asia)append
reg3  lnita tcci $cont if region==3, small
outreg2 using regionalor, word auto(2) ctitle(Europe)append
reg3  lnita tcci $cont if region==4, small
outreg2 using regionalor, word auto(2) ctitle(MENA)append
reg3  lnita tcci $cont if region==5, small
outreg2 using regionalor, word auto(2) ctitle(Africa)append
**********************************************************************
*Sub-indices of  TTCI and ITA BY  REGIONS
**********************************************************************
global cont lngdp  lnpop lnexr
global tcci lneenv lnpcon lninfra lnnrcr
reg3  lnita $tcci $cont cdum* ydum*, small
outreg2 using regionalsi, word auto(2) ctitle(allita)replace keep($tcci $cont )
reg3 lnita $tcci $cont if region==1, small
outreg2 using regionalsi,  word auto(2) ctitle(Americas)append
reg3  lnita $tcci $cont if region==2, small
outreg2 using regionalsi, word auto(2) ctitle(Asia)append
reg3  lnita $tcci $cont if region==3, small
outreg2 using regionalsi, word auto(2) ctitle(Europe)append
reg3  lnita $tcci $cont if region==4, small
outreg2 using regionalsi, word auto(2) ctitle(MENA)append
reg3  lnita $tcci $cont if region==5, small
outreg2 using regionalsi, word auto(2) ctitle(Africa)append
**********************************************************************
*overall TTCI and ITR BY  REGIONS
**********************************************************************
reg3  lnitr tcci $cont cdum* ydum*, small
outreg2 using regionalor, word auto(2) ctitle(allitr)replace keep(tcci $cont )
reg3 lnitr tcci $cont if region==1, small
outreg2 using regionalor,  word auto(2) ctitle(Americas)append
reg3  lnitr tcci $cont if region==2, small
outreg2 using regionalor, word auto(2) ctitle(Asia)append
reg3  lnitr tcci $cont if region==3, small
outreg2 using regionalor, word auto(2) ctitle(Europe)append
reg3  lnitr tcci $cont if region==4, small
```

```
outreg2 using regionalor, word auto(2) ctitle(MENA)append
reg3  lnitr tcci $cont if region==5, small
outreg2 using regionalor, word auto(2) ctitle(Africa)append
*****************************************************************
*Sub-indices of  TTCI and ITR BY  REGIONS
*****************************************************************
reg3  lnitr $tcci $cont cdum* ydum*, small
outreg2 using regionalsi, word auto(2) ctitle(allitr)replace keep($tcci $cont )
reg3 lnitr $tcci $cont if region==1, small
outreg2 using regionalsi,  word auto(2) ctitle(Americas)append
reg3  lnitr $tcci $cont if region==2, small
outreg2 using regionalsi, word auto(2) ctitle(Asia)append
reg3  lnitr $tcci $cont if region==3, small
outreg2 using regionalsi, word auto(2) ctitle(Europe)append
reg3  lnitr $tcci $cont if region==4, small
outreg2 using regionalsi, word auto(2) ctitle(MENA)append
reg3  lnitr $tcci $cont if region==5, small
outreg2 using regionalsi, word auto(2) ctitle(Africa)append
*****************************************************************
*overall TTCI and TGDP BY   REGIONS
*****************************************************************
reg3  lntgdp tcci $cont cdum* ydum*, small
outreg2 using regionalsi, word auto(2) ctitle(alltgdp)replace keep(tcci $cont )
reg3 lntgdp tcci $cont if region==1, small
outreg2 using regionalsi,  word auto(2) ctitle(Americas)append
reg3  lntgdp tcci $cont if region==2, small
outreg2 using regionalsi, word auto(2) ctitle(Asia)append
reg3  lntgdp tcci $cont if region==3, small
outreg2 using regionalsi, word auto(2) ctitle(Europe)append
reg3  lntgdp tcci $cont if region==4, small
outreg2 using regionalsi, word auto(2) ctitle(MENA)append
reg3  lntgdp tcci $cont if region==5, small
outreg2 using regionalsi, word auto(2) ctitle(Africa)append
*****************************************************************
*Sub-indices of  TTCI and TGDP BY  REGIONS
*****************************************************************
reg3  lntgdp $tcci $cont cdum* ydum*, small
outreg2 using regionalsi, word auto(2) ctitle(alltgdp)replace keep($tcci $cont )
reg3 lntgdp $tcci $cont if region==1, small
outreg2 using regionalsi,  word auto(2) ctitle(Americas)append
reg3  lntgdp $tcci $cont if region==2, small
outreg2 using regionalsi, word auto(2) ctitle(Asia)append
reg3  lntgdp $tcci $cont if region==3, small
outreg2 using regionalsi, word auto(2) ctitle(Europe)append
reg3  lntgdp $tcci $cont if region==4, small
outreg2 using regionalsi, word auto(2) ctitle(MENA)append
reg3  lntgdp $tcci $cont if region==5, small
outreg2 using regionalsi, word auto(2) ctitle(Africa)append
*****************************************************************
*overall TTCI and ITA BY INCOME GROUPS*
```

```
*****************************************************************
*****************************************************************
reg3  lnita tcci $cont cdum* ydum*, small
outreg2 using incomegroupor, word auto(2) ctitle(allita)replace keep(tcci $cont )
reg3 lnita tcci $cont if incomegroup==1, small
outreg2 using incomegroupor,  word auto(2) ctitle(LIC)append
reg3  lnita tcci $cont if incomegroup==2, small
outreg2 using incomegroupor, word auto(2) ctitle(LMIC)append
reg3  lnita tcci $cont if incomegroup==3, small
outreg2 using incomegroupor, word auto(2) ctitle(UMIC)append
reg3  lnita tcci $cont if incomegroup==4, small
outreg2 using incomegroupor, word auto(2) ctitle(HIC)append
*****************************************************************
*Sub-indices of  TTCI and ITA BY INCOME GROUPS*
*****************************************************************
reg3  lnita $tcci $cont , small
outreg2 using incomegroupsi, word auto(2) ctitle(allita)replace keep($tcci $cont )
reg3 lnita $tcci $cont if incomegroup==1, small
outreg2 using incomegroupsi,  word auto(2) ctitle(LIC)append
reg3  lnita $tcci $cont if incomegroup==2, small
outreg2 using incomegroupsi, word auto(2) ctitle(LMIC)append
reg3  lnita $tcci $cont if incomegroup==3, small
outreg2 using incomegroupsi, word auto(2) ctitle(UMIC)append
reg3  lnita $tcci $cont if incomegroup==4, small
outreg2 using incomegroupsi, word auto(2) ctitle(HIC)append
*****************************************************************
*overall TTCI and ITR BY INCOME GROUPS*
*****************************************************************
reg3  lnitr tcci $cont cdum* ydum*, small
outreg2 using incomegroupor, word auto(2) ctitle(allitr)replace keep(tcci $cont )
reg3 lnitr tcci $cont if incomegroup==1, small
outreg2 using incomegroupor,  word auto(2) ctitle(LIC)append
reg3  lnitr tcci $cont if incomegroup==2, small
outreg2 using incomegroupor, word auto(2) ctitle(LMIC)append
reg3  lnitr tcci $cont if incomegroup==3, small
outreg2 using incomegroupor, word auto(2) ctitle(UMIC)append
reg3  lnitr tcci $cont if incomegroup==4, small
outreg2 using incomegroupor, word auto(2) ctitle(HIC)append
*****************************************************************
*Sub-indices of  TTCI and ITR BY INCOME GROUPS*
*****************************************************************
reg3  lnitr $tcci $cont , small
outreg2 using incomegroupsi, word auto(2) ctitle(allitr)replace keep($tcci $cont )
reg3 lnitr $tcci $cont if incomegroup==1, small
outreg2 using incomegroupsi,  word auto(2) ctitle(LIC)append
reg3  lnitr $tcci $cont if incomegroup==2, small
outreg2 using incomegroupsi, word auto(2) ctitle(LMIC)append
reg3  lnitr $tcci $cont if incomegroup==3, small
outreg2 using incomegroupsi, word auto(2) ctitle(UMIC)append
reg3  lnitr $tcci $cont if incomegroup==4, small
```

```
outreg2 using incomegroupsi, word auto(2) ctitle(HIC)append
*****************************************************************
*overall TTCI and TGDP BY INCOME GROUPS*
*****************************************************************
reg3  lntgdp tcci $cont cdum* ydum*, small
outreg2 using incomegroupor, word auto(2) ctitle(alltgdp)replace keep(tcci $cont )
reg3 lntgdp tcci $cont if incomegroup==1, small
outreg2 using incomegroupor,  word auto(2) ctitle(LIC)append
reg3  lntgdp tcci $cont if incomegroup==2, small
outreg2 using incomegroupor, word auto(2) ctitle(LMIC)append
reg3  lntgdp tcci $cont if incomegroup==3, small
outreg2 using incomegroupor, word auto(2) ctitle(UMIC)append
reg3  lntgdp tcci $cont if incomegroup==4, small
outreg2 using incomegroupor, word auto(2) ctitle(HIC)append
*****************************************************************
*Sub-indices of  TTCI and TGDP BY INCOME GROUPS*
*****************************************************************
reg3  lntgdp $tcci $cont , small
outreg2 using incomegroupsi, word auto(2) ctitle(alltgdp)replace keep($tcci $cont )
reg3 lntgdp $tcci $cont if incomegroup==1, small
outreg2 using incomegroupsi,  word auto(2) ctitle(LIC)append
reg3  lntgdp $tcci $cont if incomegroup==2, small
outreg2 using incomegroupsi, word auto(2) ctitle(LMIC)append
reg3  lntgdp $tcci $cont if incomegroup==3, small
outreg2 using incomegroupsi, word auto(2) ctitle(UMIC)append
reg3  lntgdp $tcci $cont if incomegroup==4, small
outreg2 using incomegroupsi, word auto(2) ctitle(HIC)append
*****************************************************************
```