

A critical assessment of Africa's growth potential as a global competitive tourism role-player

AH VILJOEN



orcid.org 0000-0001-9696-7328

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Promotor: Prof A Saayman

Co-promotor: Prof M Saayman

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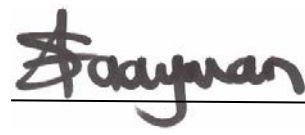
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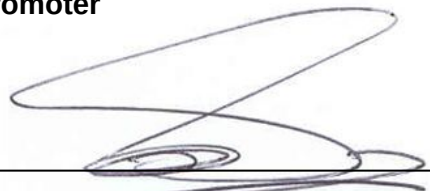
I, **Adam Herman Viljoen**, identity number 8902285201082 student number 21068690, hereby declare that this research submitted to the North-West University, for the PhD study: **A critical assessment of Africa's growth potential as a global competitive tourism role-player**, is my own independent work and complies with the Code of Academic Integrity, as well as other relevant policies, procedures, rules and regulations of the North-West University; and has not been submitted before to any institution by myself or any other person in fulfilment of the requirements for the attainment of any qualification.



Adam Herman Viljoen
Student



Prof. Dr. Andrea Saayman
Promoter



Prof. Dr. Melville Saayman
Co-Promoter

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Abstract

Africa's growth potential as a global competitive tourism role player

The rationale for undertaking this study is supported by the tourism figures of Africa. Concerning inbound tourism arrivals, Africa holds a meagre five percent share globally. Intra-African tourism is prominent but within reason, while outbound tourism from Africa is merely three percent of global outbound travel. However, tourism to, within and from Africa is growing at a decent pace, necessitating a greater understanding of Africa's potential as a global competitive role player in the tourism industry. The goal of this study was therefore to explore Africa's potential as a global competitive destination and travel market, by investigating the determinants that influence inbound, intra-African and outbound tourism arrivals. In order to reach this goal, particular objectives were set and these were addressed in the 7 chapters of this study.

Chapter 2 set out to investigate competitiveness, the role that trade theories had in developing competitiveness, and the formation of a destination competitiveness model. Chapter 3 introduced the literature about Africa and the complexities that the tourism industry faces, referencing standard determinants that influence tourism arrivals from an inbound, intra-African and outbound tourism perspective. Furthermore, the importance of regional economic integration is discussed and a brief assessment of each African region was made with regard to tourism conditions and economic strengths and challenges.

The empirical chapters offer insight into inbound tourism (Chapter 4), intra-African tourism (Chapter 5), and outbound tourism (Chapter 6). The investigation into inbound tourism revealed that panel data methods are useful tools in determining which factors/variables influence travel to Africa. Two approaches were applied, namely the Generalised Method of Moments (GMM) and the bias-corrected least square dummy variable (LSDV). The analysis was performed to evaluate Africa holistically, as well as, per region. Using static and dynamic panel estimators, two key findings were identified from this research: (1) Tourism to the continent is influenced by income in developed countries, prices, infrastructure and geographical factors as well as conservation efforts; and (2) the regions in Africa do not all react the same to changes in these factors, indicating unique regional determinants that imply that Africa cannot be simply treated as a unit.

Addressing intra-African travel necessitated a brief investigation into Africa's history, from the slave trade and conquest, colonialism in Africa to Africa's independence and present state. Moreover, a trade theoretical approach was applied to investigate intra-African tourism. Trade

theory was concisely reviewed, advising the methods and approaches that were used in the analysis, namely the gravity model, Linder's hypothesis, comparative advantage and Heckscher-Ohlin (H-O) theory. The gravity results reveal that the general gravity model is useful in explaining intra-African tourism flows with GDP per capita and population size contributing to tourism arrivals, while distance discourages arrivals. Moreover, mutual variables such as common language, common border, and common coloniser contribute to arrivals. Intra-African tourism do not support Linder's hypothesis with large differences between countries increasing tourism flows. Furthermore, less urbanised countries tend to travel to more urbanised countries, and vice versa, again contradicting Linder's theory. The revealed comparative advantage (RCA) results indicate that countries with an affinity for worldwide tourism receipts also benefit from intra-African tourism. The H-O results reveal that natural resource endowment might not contribute to intra-African travel, however rather confirm that cultural and geographic proximity and the development of the destination country, dictate intra-African travel.

Outbound tourism from Africa were analysed using the Almost Ideal Demand System (AIDS). The use of the AIDS model has been extensively explored in literature, however the application in an African context is limited. Static and dynamic AIDS models were estimated. The results reveal that income changes in Africa will benefit arrivals to North America, Asia and Europe and other African destinations. Additionally, substitute and complementary destinations were identified. Since the study investigated multiple facets of tourism by means of various methods and techniques, the literature and practical contributions were identified. This research mainly advocates for enhanced trade relations within the continent that will contribute to more stability and enhanced living standards. The role of regional integration and the prioritisation of tourism is essentially the contributing factor to address political and social reform by means of redefined policy development, planning and implementation. Additionally, this research contributes to the current state of tourism arrivals research in Africa, by providing insight into the concerns that regions face in attracting increased arrivals to the continent, as well as, how the continent can prosper from increased intra-African travel and subsequently develop Africa into a future tourism source market for other global destinations. Therefore, the study provides insight into increasing Africa's competitiveness as a global tourism role player.

Key words: Africa, destination competitiveness, inbound tourism, intra-African tourism, outbound tourism, trade, tourism demand, panel data, generalised method of moments (GMM), bias-corrected least square dummy variables (LSDV), gravity model, Linder's hypothesis, Heckscher-Ohlin theory, revealed comparative advantage, Almost Ideal Demand System (AIDS)

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List of acronyms

Acronym Name	Acronym Definition
AEC	African Economic Community
AFDB	African Development Bank
AGO	Angola
AIDS	Almost Ideal Demand System
AMU	Arab Maghreb Union
AU	African Union
AUSTC	African Union Specialised Technical Committee
BBC	British Broadcasting Corporation
BDI	Burundi
BEN	Benin
BIAT	Boosting Intra-Africa Trade
BRICS	Brazil, Russia, India, China and South Africa
CAF	Central African Republic
CEN	Community of Sahel-Saharan States
CEPII	Centre d'Etudes Prospectives et d'Informations Internationales
CFTA	Continental free trade area
COMESA	Common Market for Eastern & Southern Africa
CPI	Consumer price index
EAC	East African Community
EATP	East African Tourism Platform
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EGY	Egypt
ELGH	Export-led growth hypothesis
ETH	Ethiopia
EU	European Union
EU25	Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Spain, Sweden, United Kingdom, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia, Slovak Republic.
EVI	Economic vulnerability index
FDI	Foreign direct investments
FE	Fixed effects
GDP	Gross domestic product
GMB	Gambia

GMM	Generalised Method of Moments
HAI	Human asset index
HIV	Human immunodeficiency virus
H-O	Heckscher-Ohlin
IATA	International Air Travel Association
IFS	International Financial Statistics
IGAD	Intergovernmental Authority on Development
IMF	International Monetary Fund
IV	Instrumental variable
KEN	Kenia
LA	linear approximate
LCC	Low cost carriers
LDC	Least developed countries
LH	Linder's hypothesis
LLC	Landlock countries
LM	Lagrange Multiplier
LSO	Lesotho
MAR	Madagascar
MDGs	Millennium Development Goals
MM	Method of moments
MOZ	Mozambique
MRT	Multi-lateral resistance term
MUS	Mauritius
MWI	Malawi
NADUM	North African dummy
NAM	Namibia
NBS	National Bureau of Statistics
NEPAD	New Partnership for Africa's Development
NER	Niger
NGA	Nigeria
NNTT	New-new trade theory
NRCA	Normalised revealed comparative advantage
NTT	New trade theory
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary least squares
PPF	Production Possibility Frontier
PPML	Poisson pseudo-maximum likelihood

RCA	Revealed comparative advantage
REC	Regional economic communities
REI	Regional economic integration
RETOSA	Regional Tourism Organisation of Southern Africa
RMSE	Root-mean-square error
ROI	Return on investment
SABORDER	South African border
SADC	Southern African Development Community
SLE	Sierra Leone
SMTE's	Small and medium tourism enterprises
STC	Specialised Technical Committee
SUR	Seemingly unrelated regression
SYC	Seychelles
TB	Tuberculosis
TFCAs	Trans Frontier Conservation Areas
TII	Tourism Intelligence International
TLGH	Tourism-led growth hypothesis
TUN	Tunisia
TZA	Tanzania
UGA	Uganda
UK	United Kingdom
UN	United Nations
UNCD	United Nations Comtrade Database
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNDPI	United Nations Department of Public Information
UNECA	United Nations Economic Commission for Africa
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNSTATS	United Nations Statistics
UNWTO	United Nations World Tourism Organization
US/ USA	United States / of America
USD/ US\$	United States dollar
WAT	West Africa Tourism
WBDI	World Bank Development Indicators
WEF	World Economic Forum
WHO	World Health Organization

WTO	World Tourism Organization
WTTC	World Travel and Tourism Council
ZAF	South Africa
ZMB	Zambia



CHAPTER 1: INTRODUCTION, PROBLEM STATEMENT, OBJECTIVES AND METHOD OF RESEARCH

“Wisdom is wealth” - Swahili proverb

1.1 Introduction

The word Africa evokes thoughts of adventure, danger and intrigue; this is evident in Africa's turbulent and often violent history (British Broadcasting Corporation [BBC] World Service, 2014:online). A history deeply rooted in the systematic colonisation of Africa to expand the French, British, Portuguese, Belgium, German, Spanish and Dutch empires, motivated by establishing trade routes, excavating natural resources, slavery and missionary work (Rogerson, 2007:361). These countries are still known today as Africa's major source markets in terms of tourism arrivals (United Nations World Tourism Organization [UNWTO], 2013a:12). These markets have been successfully sustained over the centuries; however, many researchers would agree that these traditional source markets are dwindling and ageing rapidly (World Economic Forum [WEF], 2013a:3; 2013b:xi). Therefore, growth and expansion into new markets are needed to maintain tourism to Africa, as well as to establish Africa as a viable source market to other destinations (World Bank, 2013a:119).

Certain challenges arise when analysing the continent from a tourism perspective. Firstly, geographically Africa is the world's second largest continent and globally the second most populated after Asia, making management and balanced geographic development difficult (Naudé, 2007:4). Secondly, from an economic point of view the continent is split in North- and Sub-Saharan Africa, while it is geographically divided into 54 countries and five distinct regions; namely Northern-, Eastern-, Southern-, Western- and Central Africa (Kester, 2003:203; Fourie & Santana-Gallego, 2011:6; Kareem, 2013:134). This inconsistency of estimating the extent of Africa's borders leads to confusion, as many prominent organisations segregate North- from Sub-Saharan Africa. Thirdly, Africa's contrasting landscape extends well into society, where unique natural beauty and cultural phenomena enrich the tourism potential. This potential is weighed down by the fact that Africa is home to some of the world's poorest people, many of whom survive on less than \$1 to \$2 per day (Kester, 2003:204; Rogerson, 2007:361). The lack of education and skills, famine, drought, civil war, corruption, bureaucracy and greed escalate the abovementioned challenges. This results in the question; how might African countries and the continent as a whole effectively manage these challenges to be seen as a global competitive tourism role player.

Competitiveness of destinations has long been a benchmark referring to success, quality and attractiveness of tourism products and services (Dimanche, 2005:5; Navickas & Malakauskaite, 2015:37). The level of competition in a destination will increase the number of suppliers of products/services in relation to the demand for particular products/services (Page & Connell, 2014:56). Consequently, the demand for Africa as a travel destination will only increase when African countries supply the essential products and services to accommodate the demand of inbound, outbound and intra-African tourists. According to the UNWTO (2013b:3) international tourism arrivals are most prominent to Europe (52%), followed by Asia and the Pacific (23%), the Americas (16%), Africa (6%) and lastly the Middle East (5%). Furthermore, demand for international tourism grew rapidly for destinations in Asia and the Pacific (up with 6%), Africa (an increase of 6%) and Europe (up with 5%) between 2012 and 2013. Despite the fact that international tourism demand for Africa is slowly gaining momentum, the little interest from the international market remains worrisome (Rogerson & Visser, 2011:252). Only 3% of outbound African markets travel internationally (UNWTO, 2013a:12) and the current statistics for intra-African travel is unknown.

The concerns raised above contribute to the importance of this study to address the competitiveness of Africa as a global tourism role player, as well as the issues surrounding the African travel market. Competition between global destinations increases with many destinations supplying tourists with a similar product or services. However, to remain competitive, destinations need to establish a unique experience (Ritchie & Crouch, 2003:67; Cai, Qiu & Li, 2007:464; Pike, 2009:859; Kayar & Kozak, 2010:203; Crouch, 2011:28). The influence of globalisation furthermore aggregates the competition in creating the "global village". According to Page and Connell (2014:643), globalisation is the process of change and development in the world economic system that influences trade and cultural exchange, often resulting in standardisation of products or institutions. Standardisation holds many benefits, but also drawbacks, for the African continent; for example standardisation of inter-continental hotel chains provides tourists with services that they would expect. Adversely, standardising the service delivery narrows individuality and creativity, resulting in acculturation and demonstration effects (Scholtz, 2014:82-83).

The focus of this study is on the competitive nature of the tourism industry and the competition that exists between different continents. Africa is one of the world's most attractive continents to visit (in terms of resources, scenery and culture) and also holds great potential for growth and development. The tourism led growth hypothesis (TLGH) has widely been cited as the relationship between tourism development and economic growth and relies on the notion that tourism development will promote or cause long-run economic growth in a country (Schubert,

Brida & Risso, 2011:377). However, an opposing view that economic growth and development promotes or causes long-run tourism growth has also been investigated. Theoretically, the TLGH is directly derived from the export-led growth hypothesis (ELGH) which states that economic growth can be a result of increasing labour and capital within the economy and by expanding exports (Brida, Cortes-Jimenez & Pulina, 2016:1).

Recently, Nene and Taivan (2017:164) revealed that the TLGH was valid for six of the 10 Sub-Saharan African countries (2004-2014) in the analysis, stating that 60% of the countries depend in part on tourism revenue to drive economic growth. The other 40% or four countries invest into tourism infrastructure with the goal of long-run economic growth. Granger causality indicated that Botswana, Malawi, Mali, Namibia, Tanzania and Zimbabwe indicate positive causality for tourism development promoting economic growth, while economic growth causing tourism development was observed in the Democratic Republic of the Congo, South Africa, Kenya and Uganda. The authors continue by indicating that countries with more stable economies will increase investment in the tourism industry as a means of long-run economic growth, however, the DRC is an exemption to this, since the country invest heavily into the tourism industry in the hopes of reclaiming visitor numbers after the political instability. This indicates that depending on the various factors the TLGH could be used by African countries as a means of economic growth, while other more advanced African economies makes use of economic development to finance and invest in tourism.

Thus, this study specifically explored the tourism demand for and supply from Africa, which encompasses the inbound, outbound and intra-African travel. In line with the study focus, Chapter 1 points toward the problem under investigation. The next section therefore provides the background to the study, followed by the problem statement, goals and objectives, methodology, the definition of key concepts and the further chapter classification.

1.2 Background to the study

The economic plight in Africa has received much scholarly attention especially in terms of income expressed as gross domestic product (GDP) per capita. The post-industrial period, particularly due to increased services, information and research compared to the manufacturing sectors. According to the World Bank (2016) Africa's post-industrial period had observed slow economic growth rates. Explicitly comparing Africa's GDP per capita with other regions such as North-America, Europe, Central Asia and other OECD members, indicate that Africa is lagging far behind. However, considering the economic crisis (2009) many countries exhibited negative real GDP growth, yet, Africa achieved positive growth of 3.6% (IMF, 2016). African economies are expected to grow based on historical data indicating an increased

average annual real output growth rate of 1.8% (1980-1989), 2.6% (1990-2000) and 5.3% (2000-2010) (UNCTAD, 2014:3). Despite the strong economic growth performance, Africa is still challenged in terms of weak intra-regional trade integration, poverty, high unemployment, and social inequality. Tourism-led growth has been proposed for African countries particularly due to foreign exchange earnings and the labour intensiveness associated with tourism development.

Acquiring a holistic view of the background necessitates the understanding, and separate discussion of destination competitiveness, as well as Africa's tourism potential and the travel markets. The literature relevant to these aspects follows in the discussion below.

1.2.1 Destination competitiveness

Destination competitiveness refers to the ability of a destination to deliver products and services more efficiently than a substitute destination (Heath, 2003:7). Destination competitiveness furthermore includes profitability in the tourism marketplace, centred on tourism destination management (Goeldner & Ritchie, 2012:329). Effective management of destinations offers abundant rewards and feature on every level; including economic, socio-cultural, political, technological and environmental level. According to Dwyer and Kim (2003:382), the extent of the benefits goes beyond these spheres and range from the exchange of ideas to fostering business contacts, a continuation of education and training and the facilitation of technology transfers.

Assessing destinations on various levels, be it regional, provincial, national and international, requires the use of a destination competitiveness model. Researchers such as Porter (1985), Dwyer and Kim (2001); as well as Ritchie and Crouch (2003) have successfully assessed destination competitiveness with regard to the factors that contribute towards destination competitiveness and managing those factors to obtain an advantage and to sustain it. Moreover, these models and theories have given valuable insight into the nature and development of policies to include the multiple attributes of tourism, and deliver a structured assessment tool for the competitiveness of destinations. However, generalisation is complicated as destinations amalgamate into different types and levels of tourism destinations; such as (1) a nation or country: (2) macro-region consisting out of several countries (i.e. the Southern African Development Corporation): (3) the province or state within a country: (4) localised region within a country: (5) city or towns: and finally (6) localities such as national parks (Goeldner & Ritchie, 2012:329). In the context of this study, the mention of inbound and intra-African destination, entails and represents travelling to and within the African continent, while outbound destinations refer to all international destinations (excluding

Africa). The difference in the type of destination requires different types of assessment and planning, as each type of destination has unique attributes. According to Pechlaner, Hedorfer and Tödter (2008:110) global destinations are defined for their dependency on the tourists travelling distance, target groups and/or markets. For this study's purpose, a continent can be seen as a type of global destination as it is intrinsically associated with the scope of tourist activities. Besides, the distance that is travelled also represents the scope of tourism. Consequently, tourists who travel a longer distance will spend more time at the destination to be able to visit a variety of attractions at the particular destination and surroundings (Jaworski & Lawson, 2005:98; Tasci, 2011:116).

Destinations, especially entire continents, are not so easily substituted due to their specific offerings. However, many destinations, such as individual countries or regions, have the ability to deliver the same experiences to tourists; for example, many countries can offer safari packages in a national park or protected area including South Africa, Botswana, Zimbabwe, Tanzania and Kenya. Therefore it is crucial for destinations, including Africa, to strive for a competitive advantage and address problems to sustain and improve the benefits from tourism. It is also imperative to determine the factors that contribute to destination competitiveness and how those factors should be managed to sustain a competitive advantage.

The factors to be managed are often referred to as comparative factor endowments (Heath, 2003:10) which are categorised into factor productivity and factor supply (Costinot, 2009:1166). Traditional trade theories such as the Ricardian theory (technology / productivity efficiency) and Heckscher-Ohlin theory (natural endowments including capital, labour and natural resources) investigated the importance of comparative advantage in establishing a competitive advantage (Zhang & Jensen, 2007:227). Furthermore, Crouch and Ritchie (1999:147) included the comparative advantages (human-, physical-, knowledge-, capital-, infrastructure and tourism supra-structure-, and historical and cultural resources) and competitive advantages (audits & inventory, maintenance, growth & development, efficiency and effectiveness) in the conceptual model for destination competitiveness (c.f. 2.5.1).

According to Blanke and Chiesa (2009:4) the factors that influence destination competitiveness, as compiled by the World Economic Forum, includes the 14 pillars of tourism and travel competitiveness. The pillars are: policy rules and regulations, environmental stability, safety and security, health and hygiene, prioritisation of travel and tourism, air transport infrastructure, ground transport infrastructure, tourism infrastructure, information and communication technology infrastructure, price competitiveness, human resources, attraction

for travel and tourism, natural resources and cultural resources. These 14 pillars offer a framework to evaluate travel and tourism competitiveness. Still, the criteria are not universally applicable to all scenarios, especially in an African context. To this regard, researchers including Ritchie and Crouch (1995-2003) have spent years to develop models for destination competitiveness and sustainability. The destination competitiveness models also offer good insight, however many researchers like Jonker (2004:274), Lee and King (2006:189) as well as Wilde and Cox (2008:469) agree that no universally acceptable criteria exist for each destination, and Africa is no exception.

In view of the 14 pillars, it is important to note that these pillars include a multitude of factors and are not limited to only 14 aspects that can be addressed, but the categorisation has been made to ease assessment. In spite of this, when assessing these pillars, many are absent or dormant in several African regions leading to inadequate and incomplete data. For example, air transport infrastructure for developed countries is assessed by the ease of access to and from countries, as well as movement to destinations within countries. This measures both the quantity of air transport (as measured by the available seat kilometres, the number of departures, airport density, and the number of operating airlines) and the quality of the air transport infrastructure for both domestic and international flights (Blanke & Chiesa, 2013:8). In developing countries such as Africa, this type of infrastructure is underdeveloped, resulting in further complications in the remaining pillars, and subsequently the competitiveness of Africa on a global scale. Nonetheless, even with all Africa's shortcomings it is evident that the demand for this continent as a tourism destination is on the rise, and Africa has shown substantial growth over the past decades.

1.2.2 Africa's tourism potential

This section follows a three-tier approach; firstly, Africa's intra-continental tourism potential is discussed. Then, Africa's potential for outbound tourism is addressed and finally, the continent's potential to attract inbound tourism is explored. This gives a holistic view of African tourism and the potential that Africa has in becoming a global competitive tourism role-player.

1.2.2.1 Intra-African tourism potential

Tourism has been identified as a catalyst to improve trade and development in intra-regions and intra-Africa (United Nations Conference on Trade and Development [UNCTAD], 2013:103). An example of the necessity of intra-regional development is in exports between countries or regions; for example of the total Asian exports, 50% is intra-region, and Europe's total European exports constitute 70%, while Africa's total intra-African exports is only 11%

(UNCTAD, 2013:125). Promoting intra-African trade and tourism will contribute to the African Unions vision of "an integrated, prosperous and peaceful Africa, driven by its citizens and representing a dynamic force in global arena" (African Union [AU], 2013:online).

Intra-African tourism refers to the tourism activity between various African countries that are not limited to intra-regional tourism, such as the Southern African Development Community (SADC) (Behar & Edward, 2011:2). It is vital to evaluate Africa's regional economic communities (REC's) in order to explore the potential of creating intra-African tourism coordination. This evaluation is a good stepping stone for tourism development, as regional trade facilitates the necessity to travel and vice versa, due to fewer restrictions (for example visas and exchange rates) in an intra-regional context (Njoloma, 2010:17). However, complications arise when travelling between different REC's and regions, which contribute to intra-African tourism difficulties. The African Economic Community (AEC) consists of eight distinct regional economic communities (REC's), spanning across the continent and is considered to be the building blocks of the AEC (Department of Foreign Affairs, 2003:online). The REC's included in the AEC are as follows:

- The Arab Maghreb Union (AMU);
- The East African Community (EAC);
- The Southern African Development Community (SADC);
- The Economic Community of West African States (ECOWAS);
- The Economic Community of Central African States (ECCAS);
- The Community of Sahel-Saharan States (CEN-SAD);
- The Common Market for Eastern and Southern Africa (COMESA); and
- The Intergovernmental Authority on Development (IGAD).

The AEC's objectives are to (1) promote economic, social, and cultural development; (2) integrate the African economies leading to increased economic self-reliance; (3) harness and develop Africa's human and material resources; (4) promote co-operation so as to raise the standard of living and enhance economic stability; (5) foster peaceful relations among member states; and (6) contribute to the progress, development, and economic integration of the continent (AU, 1991:8; Naldi & Magliveras, 1999:604). Furthermore, from a tourism point of view, the objectives include: (a) strengthening intra-African cooperation in tourism; and (b) promoting the establishment of efficient tourism enterprises that are adapted to the needs of the African people and are attractive to foreign tourists (World Bank, 1991:39; AU, 1999:46).

It is evident from literature that to compete successfully within each region of Africa (i.e. northern, eastern, southern, western and central) "the barriers that have a negative effect on intra-African trade, and consequently travel and tourism needs to be addressed" (UNCTAD, 2013:52). These barriers include aspects such as non-tariff barriers in the form of price controls, product standards, discriminatory foreign exchange allocation, quotas, non-automatic licensing, administrative hurdles, excessive and unnecessary document requirements and unnecessary delays (UNCTAD, 2013:52). The barriers that complicate intra-African trade, also indicates the areas that need to be prioritised, for the development and potential of intra-African tourism cooperation. Western Cape Tourism, Trade and Investment Promotion Agency [WESGRO] (2013:1) indicates that the top three global regions that Africans will visit by 2020 include southern Africa, East Africa and the Middle East. According to Dieke (2003:287) establishing intra-African tourism cooperation is essential for developing the African market to its full potential. The aforesaid is also vital to provide Africans with the means to expand their travel beyond the boundaries of African countries or regions; as well as to embark on outbound (outside of Africa) travel to other continents.

1.2.2.2 Africa's potential for outbound tourism

As previously mentioned, only 3% of outbound African markets travel internationally (UNWTO, 2014:12). Southern Africa holds the largest market share of outbound tourism in Africa (49%), followed by the Eastern African region (22%), and then northern Africa that counts for 15% (WESGRO, 2013:1). These statistics raise many concerns that have to be addressed, like the reason for the little interest from Africans to travel abroad; and what the barriers are which restrict outbound travel.

Gholipour, Tajaddini and Al-mulali (2014:20) state that outbound tourism or departures refer to the number of residents who travel from their country of residence to another destination country for leisure or business purposes. For the purpose of this study, outbound tourism refers to tourism activity outside the African continent (Divisekera, 2013:36). Africa has the fastest growing middle class globally, although, within this broad African middle-class category, there are further subdivisions, namely: (1) upper middle class, spending US\$10 and US\$20 a day; (2) lower middle referring to those spending US\$4 and US\$10 a day; and (3) the floating class who are the most vulnerable in society spending between US\$2 and US\$4 which is slightly above the developing world poverty line of US\$2 person per day (Deloitte, 2012:1). Since many Africans can only afford the necessities, expenses such as international travel is not prioritised, or not even readily available.

Air transport, is a major contributor to the tourism industry, and even more so for international tourism (Papatheodorou & Zenelis, 2013:207). Furthermore, transport accessibility determines the demand for tourism destinations. Thus, travelling abroad requires substantial infrastructure such as airports, aeroplanes and the appropriate resource to manage the infrastructure (Papatheodorou & Zenelis, 2013:207). The insufficiency of air transport between Africa and the rest of the world, and between African countries, adds to the limited travel between countries on the continent (Kester, 2003:204). Moreover, travelling by air is expensive (depending on the distance that needs to travel, the carrier and the class of ticket) as the demand for long-haul international travel is very sensitive to the cost of air transport (Kato & Mak, 2013:238). This gives good insight to why there is so little interest to travel abroad, simply because Africans might not be able to afford travelling abroad due to a lack of income and because of the high cost of air transport, which is only one of many expenditure items of the entire trip (Divisekera, 2013:39). Since disposable income is a major constraint for Africans travelling abroad, a solution to increase the potential benefits of tourism development and the associated employment opportunities, might address this issue.

Fayissa, Nsiah and Tadasse (2008:807) is of opinion that the foreign exchange earnings that is generated by tourism, and contributes to the economic growth and development, has not been effectively harnessed in Africa when compared to other regions such as Europe. The importance of tourism as a catalyst for economic growth and development is reflected in the form of exports, which represent approximately 40% of all export services, making it a large contributor to international trade (Fayissa *et al.*, 2008:808). Moreover, tourism can be seen as a sustainable export-orientated economic growth strategy that creates jobs, contributes to the development and reduces poverty (Lee & Chang, 2008:180). Rogerson (2007:362) agrees, stating that tourism's potential to contribute significantly to the economic and social spheres in Africa is realised through the New Partnership for Africa's Development (NEPAD). Economic regeneration of the African continent can be addressed by diversifying African economies to generate foreign exchange earnings, which could contribute to the tourism sector (NEPAD, 2004:3). Since tourism is such a good catalyst for economic growth and development, it is questioned why Africa is lagging behind in this prosperous industry. There are many views concerning the challenges that the African economies face to incorporate a sustainable approach for tourism development. Some challenges include the lack of regulatory environments, regional tourism marketing, research and development. Other challenges such as undeveloped tourism infrastructure and products, undeveloped skills for tourism and social and political constraints such as gender equality and community involvement are significant obstacles (Sequeira & Campos, 2005:2; Rogerson, 2007:362; Rogerson & Visser, 2011:252).

According to Fourie (2009:9) as well as Fourie and Santana-Gallego (2011:2) some other obstacles that restrict travel from Africa include policy rules and regulations, visa requirements, the openness of bilateral air service agreements, exchange rate differences and insurance costs,. The freedom of international travel benefits those that are not restricted by the barriers listed above, for example, US and UK passport holders experience less time consuming procedures and less costs when crossing borders, whereas many other nationalities (especially Africans) have to plan their travel months beforehand. However, this benefits many of Africa's traditional source markets having easy accessibility to the continent, contributing to Africa's ability to attract inbound tourism.

1.2.2.3 Africa's potential to attract inbound tourism

Inbound tourism refers to tourism activity attracted from other continents to Africa and does not include inter- or intra-African travel. Many African economies are attentive on sustaining or increasing their economic growth rate; however tourism's potential as a driver for economic development and growth has not been fully recognised (World Bank, 2013c:xi). As seen in Table 1.1, the tourism industry contributes significantly to foreign exchange earnings on the African continent. UNWTO further reinforces the statistics of the African Development Bank when comparing the total tourism earnings of 2011 with the total tourism revenues of 2012. This shows that Africa's economy, through the tourism industry, grows by a billion dollars each year, resulting in a 6% growth spurt in 2012 which accounts for 52 million arrivals (UNWTO, 2013a:12).

Table 1.1: Tourist arrivals and receipts in Africa

Tourist Arrivals and Receipts in Africa by Region (2011)				
Region	Total Tourist Arrivals	Total Long-haul Arrivals	Receipts (US\$M)	
North Africa	26,554,000	24,383,000	\$18,296	
Southern Africa	11,048,000	2,599,000	\$10,090	
East Africa	7,621,000	2,727,000	\$7,596	
West Africa	6,611,000	4,838,000	\$3,412	
Central Africa	667,000	475,000	\$674	
Total	52,501,000	35,022,000	\$40,068	

Source: African Development Bank [AFDB] (2013)

Table 1.2 illustrates the top six countries, from both North- and Sub-Saharan Africa, that received the most international tourist receipts. There are also many other African countries experiencing rapid growth during 2012 (UNWTO, 2013a:12) such as Cameroon (+35%), Tunisia (+24%), Tanzania (+24%), Sierra Leone (+14%), Madagascar (+14%), Cape Verde

(+13%), South Africa (+10%), and the Seychelles (+7%). These countries have strong tourism industries or are developing the industry to succeed in the global and African arena.

Table 1.2: Top tourist destinations in Africa

Top six African Countries for International Tourists Receipts (US\$M)					
Country	2008	2009	2010	2011	2012
Egypt (Northern Africa) *	\$10,958	\$10,755	\$12,528	\$8,707	\$9,940
South Africa (Sub-Saharan Africa)	\$7,925	\$7,543	\$9,070	\$9,545	\$9,994
Morocco (Northern Africa) *	\$7,168	\$6,557	\$6,703	\$7,281	\$6,711
Tunisia (Northern Africa) *	\$2,953	\$2,773	\$2,645	\$1,914	\$2,183
Tanzania (Sub-Saharan Africa)	\$1,289	\$1,160	\$1,255	\$1,353	\$1,564
Mauritius (Sub-Saharan Africa)	\$1,449	\$1,117	\$1,282	\$1,488	\$1,477

Source: AFDB (2013)

***Please note, these countries are included by the African Development Bank, but excluded by the UNWTO who groups these North-African countries with the Middle East.**

The World Travel and Tourism Council (WTTC, 2016a:6) estimates that the total tourism spending in 2015 was primarily composed of leisure spending (70%) while 30% was attributed to business spending in Africa. Also in 2015, domestic tourism spending in Africa was approximately 62.3% of the total African tourism spending, while foreign spending accounted for 37.7% of the total spending. It is however important to determine if spending is the only indicator to be considered in this regard. According to the UNCTAD foreign direct investments (FDI) contribution index, foreign affiliates make higher contributions to host economies. Developing countries, especially in Africa, are assisted with value added employment and wage generation, tax revenues, export production and capital formation (UNCTAD, 2014a:1). Even with the support from foreign affiliates, many African countries still have issues with managing FDI and the potential benefits it includes. FDI is very sensitive to political instability and economic changes. According to the WTTC (2016a:1), the total GDP contribution from tourism was 8.1% in 2015, and forecasted a rise of 2.6% in 2016. There exist differences between Northern and Sub-Saharan Africa, as Northern Africa's total contribution of travel and tourism to GDP was 10.8% in 2015, with expected growth of 1.6% for 2016 (WTTC, 2016b:1). Sub-Saharan Africa's total contribution from travel and tourism to GDP was 6.9% in 2015 with an expected growth rate of 3.3% by 2016 (WTTC, 2016c:1). The weaker growth in Northern Africa could be due to continued instability in Egypt and the disappointing recovery post-Arab spring. These challenges may only be resolved when policies are enforced to reduce violence and improve development.

The United Nations Economic Commission for Africa (UNECA, 2011:46) states that traditional travel markets (Britain, Europe and the United States) to Africa have been the backbone of the tourism industry. Moreover, the pace of African growth, especially tourism receipts, depends heavily on the welfare of these regions. On the other hand, emerging markets such as China, Latin America and Russia have been travelling extensively worldwide and also to Africa (UNWTO, 2010:ix; World Bank, 2013a:22). Much of the expansion into Africa may be attributed to trade between the BRICS (Brazil, Russia, India, China and South Africa) countries. According to UNWTO (2013b:online) in 2012, China held a 9.5% market share globally, which constitutes a 40% increase from 2011, spending over \$107 billion, making China the largest and most affluent travel market. Africa has to tap into the potential of these emerging markets to increase the benefits associated with tourism. Then again, research is needed to determine which factors (determinants) contribute to Africa's destination competitiveness in order to capitalise on these advantages and growing opportunities created by new markets.

Xiao and Smith (2006:497) are of opinion that the state of research on Africa is described as "low", when compared to tourism research on North America, Europe, Asia and Australasia. Previous research conducted on tourism in Africa focused on arrivals to Africa (Kester, 2003; Naudé & Saayman, 2005; Idowu & Bello, 2010), Africa's tourism economy (Brown, 1998; Ashley & Mitchell, 2005; Rogerson, 2007; Fayissa *et al.*, 2008; Fourie, 2009; Kareem, 2013) and developing tourism in Africa (Brown, 2000; Dieke, 2000; 2003). The literature predominantly focuses on individual African countries; however, limited studies concentrate on the entire continent. Some case studies (Saayman & Saayman, 2005; Rogerson & Kiambo, 2007; Fourie, 2011) focus on developed African destinations such as South Africa. The lack of research further necessitates this study.

1.3 Problem statement

This research is driven by the following key aspects. Firstly, addressing destination competitiveness is complex, due to the variety of factors that contribute to and determine the evaluation of destination competitiveness. Secondly, managing destination competitiveness is increasingly difficult, due to the rise in similar product and service offerings, even more so when managing an entire continent. Thirdly, Africa's potential to deliver quality tourism experiences have to date not yet been fully recognised due to the challenges faced that many African destinations face, for instance a lack of infrastructure, policy regulations, development opportunities and regional and intra-African cooperation. Finally, the lack of research on the African continent induces several theoretical and methodological restrictions, which emphasises the importance of this study. These key aspects all contribute to Africa's potential

as a global tourism role player in terms of inbound, intra- and outbound African tourism. Based on the above and to address the challenges that Africa faces to be regarded as a global tourism role player, this study pursued to provide answers to the following research questions:

- Which factors influence total tourism arrivals to Africa; and are there differences between the various African regions concerning the determinants of inbound tourism?
- Can trade theory contribute to an understanding of intra-African travel?
- How do Africans choose between travelling to various continents of the world; and can African outbound travel be explained by demand theory?

By answering the above questions, insight will be gained into inbound, intra- and outbound African tourism and therefore the main research question of this study is addressed, namely ***what is Africa's potential as a global competitive tourism role player?***

1.4 Goals and objectives

The overall goal of this study is stated in detail below.

1.4.1 Goal

To explore Africa's potential as a global competitive destination and travel market, by investigating the determinants that influence inbound, intra-African and outbound tourism arrivals in order to obtain a holistic view of Africa's potential as a global competitive tourism role player.

1.4.2 Objectives

In order to reach the overall goal of the study, six objectives were formulated and set to be achieved.

- Objective 1

To evaluate the concept of competitiveness and the key components of destination competitiveness in order to explore the differences between competitive and comparative advantage.

- Objective 2

To examine the complexity of, and conditions in, various regions of Africa that influence Africa as a competitive tourism destination for both inbound, intra-African travel, as well as outbound tourism.

- Objective 3

To investigate the determinants that influence inbound tourism to Africa as a continent and also various African regions, by means of a panel data approach.

- Objective 4

To explore the determinants impacting intra-African tourism based on trade theoretical approach, particularly, the gravity model, Linder's hypothesis, and the comparative advantage theories.

- Objective 5

To investigate outbound African tourism using an Almost Ideal Demand System to understand African tourists' travel patterns and how these are influenced by changes in income and prices around the globe.

- Objective 6

To make conclusions on the current factors that prohibit Africa from becoming a global competitive tourism role player, based on the empirical results, and to make recommendations on how to improve Africa's tourism competitiveness.

1.5 Methodology

The data used in the analyses is secondary in nature from various sources. The UNWTO provided the dependent variable (arrivals) data. The independent variables are displayed in each chapter (c.f. Table 4.3; Table 5.5; Table 6.1). The majority of the sources include the World Bank Development Indicators (WBDI), the International Monetary Fund's (IMF's) International Financial Statistics (IFS), the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), and the United Nations Comtrade Database (UNCD), which are all online databases. For Chapter 4 and 5 the data ranges from 2001-2010, while for Chapter 6 it ranges from 1995-2013.

1.5.1 Literature study

Due to the nature and lack of literature and empirical studies in terms of Africa's tourism industry, the use of accredited organisation reports, produced by various departments of the United Nations, the World Bank, and the World Economic Forum is referenced. These reports are vital to the literature overview, since it encapsulates many of the concerns that need to be addressed in this study. As a prelude to the empirical chapters of this study, the literature reviews (Chapter 2 and 3) give a general overview of destination competitiveness and Africa,

which form the main themes of this thesis. Firstly, Chapter 2 investigates destination competitiveness, referring particularly to competitiveness in general, comparative advantage, competitive advantage, and the role of trade theories in developing destination competitiveness. Secondly, Chapter 3 gives an overview of Africa's tourism industry and the complexity of tourism in Africa. Then, the Chapter refers to inbound, intra-African and outbound tourism, and their associated factors. Regional economic integration was investigated as well as, Africa's competitiveness as a tourism destination. Then follows an overview of each African region, the tourism conditions in each region; and subsequent economic strengths and challenges.

Each empirical chapter (Chapters 4-6) reviews both theoretical and empirical literature which is applicable to the specific analysis in the particular chapter. Chapter 4 focuses on inbound tourism to Africa, reviewing the determinants and challenges for tourism arrivals, literature pertaining to panel data analysis and specifically the econometric methods that are applicable to the data. Chapter 5 gives a historic overview of Africa in terms of the slave trade and the conquest of Africa, colonisation of Africa, and Africa's independence as historical occurrences affect intra-Africa trade and tourism. The way in which trade promotes tourism is discussed, and vice versa. The influence of intra-regional trade on tourism development and a brief overview of trade from classical, neo-classical and new trade theory perspectives are provided. Literature based on the empirical analysis is reviewed with reference to the gravity model to test Linder's hypothesis, and a combination of the Heckscher-Ohlin (HO) and Ricardian comparative advantage theory. Lastly, Chapter 6 gives an overview of theoretical demand literature, especially the Marshallian and Hicksian demand. The theoretical and empirical literature regarding the Almost Ideal Demand System is then reviewed as African demand for other destinations can best be modelled by this approach.

1.5.2 Empirical study and data analysis

As previously mentioned, this study makes use of three empirical chapters to investigate African tourism flows. The method of each chapter is therefore described. Chapter 4 investigates inbound tourism to Africa. The underlining method of Chapter 4 is the Generalised Method of Moments (GMM) and bias-corrected least square dummy variable (LSDV) estimations in a panel data approach. The data for 25 African countries over a 10-year period (2001-2010) was analysed. The countries, per region, included in the estimation are indicated in Table 4.2 (c.f. Table 4.2). The dependent variable is arrivals, obtained from the UNWTO, while the independent variables and sources are listed in Table 4.3 (c.f. Table 4.3). The total panel consisted of 25 African countries; however, each individual regional panel was smaller (c.f. 4.4). The bias-corrected LSDV and GMM estimations were analysed in Stata 14.1. The

models were estimated using fixed and random effects, with the Breusch-Pagan Lagrange Multiplier test and the Hausman test to determine the appropriate estimator. Results for total Africa and each African region were reported.

Chapter 5 investigates intra-African tourism within the continent. The method is based on trade theories relating to tourism flows. The use of the gravity model to test Linder's Hypothesis, and the combination of the H-O and Ricardian comparative advantage theory was employed. The data for 25 African countries over a 10-year period (2001-2010) was analysed. Three of the most common methods, namely pooled ordinary least squares (OLS); fixed effects (FE-OLS); and random effects were estimated. The Poisson pseudo-maximum likelihood (PPML) was performed to address the dimensions of problems associated with the gravity model, namely the error term and the degree of model structure. The gravity model also made use of the least square dummy variable (LSDV) approach. The gravity specification was expanded to test for (a) Linder's hypothesis; (b) Ricardian comparative advantage theory; and (c) the Heckscher-Ohlin resource endowment theory. The same countries, as indicated in Chapter 4, were included in the estimation (c.f. Table 4.2). The dependent variable is arrivals, obtained from the UNWTO, while the independent variables and sources are listed in Table 5.5 (c.f. Table 5.5). All estimations were computed through applying Stata 14.1.

Chapter 6 investigates outbound African tourism from the continent. The method that was employed is the Almost Ideal Demand System (AIDS). Pre-modelling tests include the Augmented Dickey-Fuller test and Engle-Granger co-integration test that uses E-Views 9.0. Based on these test results, the static and dynamic AIDS model was estimated in Stata 14.1, from which income and price elasticity was calculated. The countries, and continents, are listed in Table 6.3 and the data spans from 1995-2013. A total of 218 countries were included in the analysis.

1.6 Defining key concepts

The following concepts were regularly used throughout the thesis and therefore needs clarification.

1.6.1 Africa

Africa is the planet's second-largest continent, as well as the second most populated continent after Asia. It includes 54 individual countries and is divided into five key regions namely North, East, South, West and Central Africa (Mabogunje, 2015:online). The oceans surrounding Africa are the Mediterranean Sea to the north, the Indian Ocean to the east and the Atlantic Ocean to the west (Worldatlas, 2013:online).

1.6.2 Destination competitiveness

Destination competitiveness relates to the ability to deliver goods/services, more efficiently than any other destination, which influences tourist experience (Heath, 2003:7). Navickas and Malakauskaite (2015:38) states that the attractiveness of the destination and the quality of products/ services aimed at a market segment determine the competitiveness of destinations. The World Economic Forum created 14 pillars of tourism and travel competitiveness which include: policy rules and regulations, environmental stability, safety and security, health and hygiene, prioritisation of travel and tourism, air transport -, ground transport -, tourism -, and information and communication technology infrastructure, price competitiveness, attraction for travel and tourism, human -, natural - and cultural resources (WEF, 2009:4).

1.6.3 Tourism demand

According to Page (2012:120), tourism demand is the relationship between an individual's motivation to travel and the ability to travel. Tourism demand is the number of tourism products that tourists are willing to buy at a certain price and can be seen as the motivation and behaviour of tourists (Khunou, Reynish, Pawson, Tseane & Ivanovic, 2009:119).

1.6.4 Intra-African tourism/travel

Intra-African tourism/travel is rooted in the regional tourism definition, which is a sub-category of international tourism, referring to people who travel outside their usual country of residence but within the same region (i.e. Africa), this refers to inter-continental travel (i.e. Africans travel in Africa) (Rogerson & Kiambo, 2007:505; Aramberri, 2009:372).

1.6.5 Outbound tourism/travel

Outbound tourism/travel is a form of international tourism referring to people who travel from their country of origin to another country (Saayman, 2013:6), restricted by inter-continental travel locations. Furthermore, outbound tourism includes departures of resident visitors outside the economic territory of the country of reference (World Tourism Organization [WTO], 2002:214). Thus, for the purpose of this study outbound tourism/travel refers to tourists travelling from all African countries to other non-African countries.

1.6.6 Inbound tourism/travel

Inbound tourism/travel is the opposite of outbound tourism/travel, referring to foreign tourism to a host country or destination (Saayman, 2013:6). Furthermore, inbound tourism includes arrivals by international (non-resident) visitors within the economic territory of the country of reference (WTO, 2002:214). For the purpose of this study inbound tourism/travel includes all foreign tourism from all non-African destinations/countries.

1.7 Chapter classification

Chapter 1 investigates Africa's potential as a global tourism role-player, and provides a background to the study and problem statement, with clear goals and objectives. It further discusses the methodology, defines key concepts and shows the further chapter classification to indicate the structure of the thesis.

Chapter 2 reviews destination competitiveness through the definition of destination competitiveness. It explores existing trade theories related to competitiveness and destination competitiveness. The Chapter investigates the difference between competitive advantage and comparative advantage, identifies the benefits of destination competitiveness as well as possible challenges.

Chapter 3 analyses Africa as a competitive tourism destination using a literature review, and describes the African continent and its regions, as well as the complexities of tourism in the African perspective. Determinants that influence inbound tourism, intra-African tourism and outbound tourism are explored, as well as the role of regional economic integration and the associated benefits. Travel conditions in each region are also identified.

Chapter 4 investigates the inbound tourism market to Africa utilising a panel data approach to the determinants of inbound travel.

Chapter 5 examines intra-African travel and employs the gravity model, Linder's hypothesis, and comparative advantage theories.

Chapter 6 discusses outbound African travel, through the Almost Ideal Demand System.

Chapter 7 draws conclusions and make recommendations regarding Africa as a global role player in competitive tourism.



CHAPTER 2: A LITERATURE OVERVIEW OF DESTINATION COMPETITIVENESS

"Travelling is learning" - Kenyan proverb

2.1 Introduction

Destinations, whether localities, cities/towns, regions, provinces, countries, macro-regions or continents, are in many respects subjected to competition and market conditions in the tourism industry (Page & Connell, 2014:108; Goeldner & Ritchie, 2012:329). Also, destinations in the simplest terms are geographic regions where tourists enjoy various types of travel experience (Goeldner & Ritchie, 2012:328). Destinations, from a commercial point of view, are the desirable "products" that creates a need/want for consumers (tourists) seeking for a particular experience and can influence the decision to buy the experience (Buhalis, 2000:111; United Nations World Tourism Organization [UNWTO], 2014:online). In a globalising world, successful destinations need to offer unique experiences to be deemed competitive. Yet the factors or variables that contribute towards destination competitiveness need to be determined. The propensity of tourists to travel is not under scrutiny, as a tourist will always travel, even during economic recessions (although substantially fewer visitors per destination) (Smeral, 2010:37; Ritchie, Molinar & Frechtling, 2010:13; Page, Song & Wu, 2011:150). The challenge is to become a contender or role player in the global tourism industry by sustaining demand for the particular destination.

Demand for a destination is the function of a person's propensity (psychographics, demographics and marketing effectiveness) to travel and the joint resistance (economic and cultural distance, cost and quality of service and seasonality) between the origin and destination areas (Goeldner & Ritchie, 2012:286-288). Sustaining demand using innovative and unique offerings are challenges that destination marketers/branders and representatives face, predominately orientated towards financial, political and environmental concerns (Baker & Cameron, 2008:89). Pressure to compete effectively with destinations that offer similar products/services are thus the key in this matter (Moilanen & Rainisto, 2009:74). With this in mind, the focus of this research is destination competitiveness, and more specifically, Africa's competitiveness potential as a global tourism role player. Numerous economic and non-economic factors affect the ability of a country/continent to compete globally. It is therefore important to identify these factors (Lall, 2001:3). This underlines the necessity of this research that aims to identify which African destination attributes and (inbound, outbound and intra-

African) travel market determinants attract/deter visitors to/from destinations. This provides insights into potential opportunities/threats to assess African destinations' potential as global tourism role player.

Therefore the goal of this Chapter is to evaluate the literature on destination competitiveness, focussing on aspects such as defining destination competitiveness, analysing destination competitiveness, exploring the differences between competitive advantage and comparative advantage, investigating the underlying components of destination competitiveness, identifying the benefits of destination competitiveness and also the possible challenges associated by means of a theoretical impact analysis. Specific reference is made to the study context (Africa), if possible, to enhance the understanding of the various aspects of the investigation.

2.2 Understanding competitiveness

Thoughts on competitiveness have, to date, received attention from different disciplines such as management, political science and economics attempting to discover competitiveness' scope, i.e. relevance and measurability (Hong, 2008:4). Scott and Lodge (1985:6) explain the difficulty in defining competitiveness from the fact that it is both a relative (i.e. relative to something else), but also very multidimensional concept (i.e. the relevant qualities associated with competitiveness). According to Arnold (2014:4), competition exists due to scarcity, where needs are not met due to limited resources. An example that illustrates this is a person's financial freedom or time to take a trip limits his/her need to travel. As mentioned earlier, this is evident from the demand for a destination, which evaluates the propensity to travel with the resistance.

Competitiveness is also considered a process rather than an absolute state, which is assessed in a relative sense (Lall, 2001:6). This is clearly depicted in Figure 2.1, where the process of competitiveness as evolution is indicated. Two major evolutionary schools of thought have emerged over the years, namely Ricardo's comparative advantage theory (circa 1817) and Porter's competitive advantage theory (circa 1980). Ricardo's comparative advantage theory implies that all countries could benefit from international trade, providing that superior countries specialise to gain the greatest absolute advantage and inferior countries specialise in the goods or service in which they have the least absolute disadvantage, based on the country's natural endowments (Cho & Moon, 2013:7; Hong, 2008:5). On the other hand, Porter's competitive advantage theory explains that certain factors exist which enables a particular industry in a global environment to succeed (see Figure 2.2). In the sections to follow, the comparative and competitive advantage are discussed in detail.

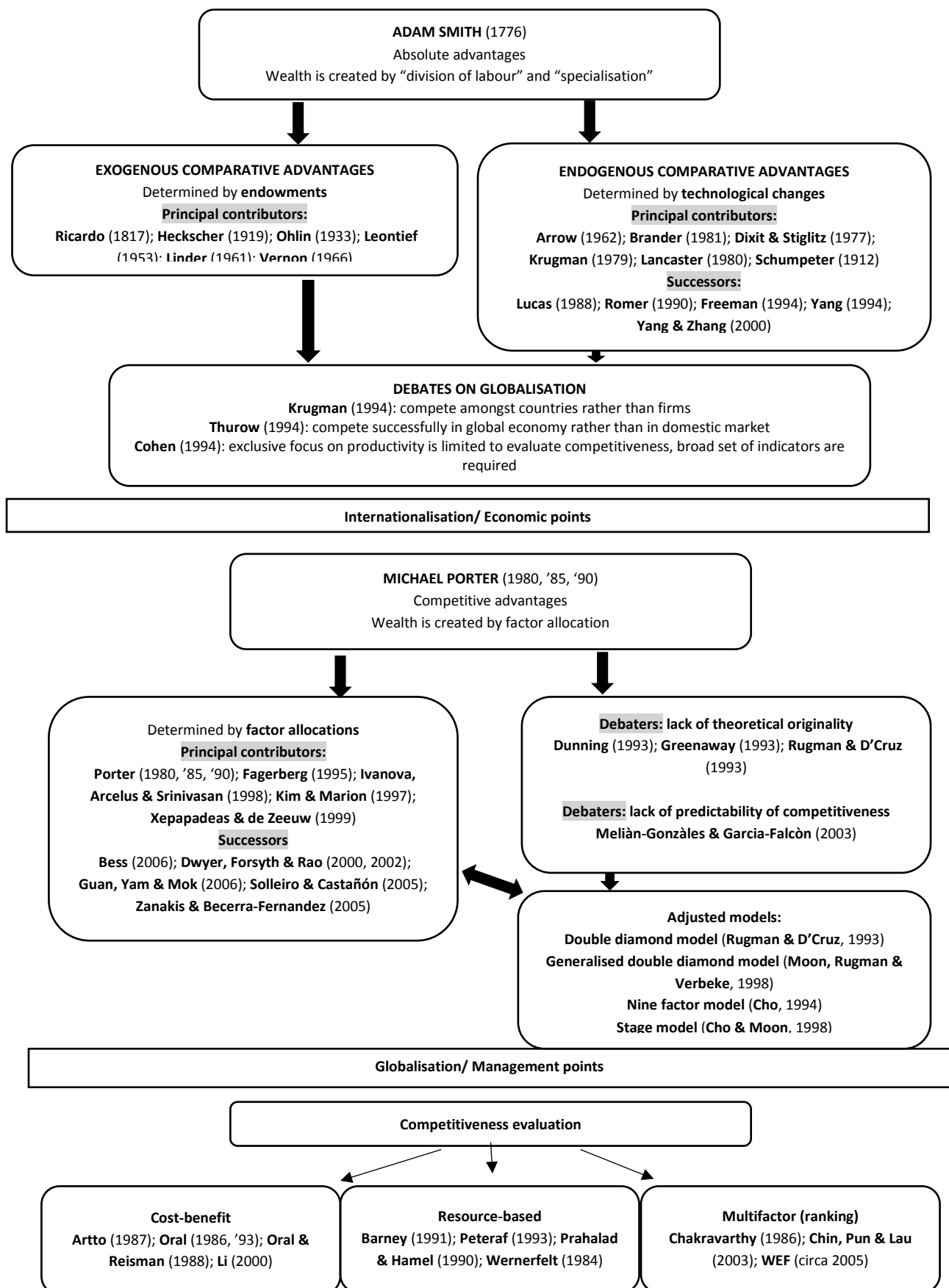


Figure 2.1: Research framework of competitiveness evolution

Source: Adapted from Hong (2008:10)

2.3 Comparative advantage

As mentioned earlier, two major evolutionary schools of thought have been the basis of competitiveness. In 1817, Ricardo developed the first theory, comparative advantages, which is defined as the "capacity to produce a particular good at a lower cost relative to some other good than other producers" (Dorman, 2014:428). Comparative advantage also refers to the advantage a country has when it produces a good (product) at a lower opportunity cost than another country can (Fourie, 2009:5; Arnold, 2014:508). On the other hand, comparative advantage assumes that countries that specialise in the production of particular products/services have an advantage, compared to a state which does not produce the particular product/service (Arnold, 2014:452).

The comparative advantage arises from the differences in countries' factor endowments, which are essential factors of production within a country, also known as natural resources (Cho & Moon, 2013:9). Furthermore, no country can consume in excess of its Production Possibility Frontier (PPF). This is a necessary condition for producer equilibrium, implying that under constant returns to scale a price possibility frontier exists (Christensen, Jorgenson & Lau, 1973:28). The price refers to the opportunity cost associated with acquiring the product, or in other words, the terms of the trade. Trade involves the voluntary negotiation and exchange of products/services for the desired products/services (Investopedia, 2015:online). Simplified, it addresses the need fulfilment of one country for the exchange of fulfilling the needs of another. The economic and trade perspective on comparative advantage has with the aforementioned discussion been clarified. In this Chapter, the focus is on tourism and subsequently destinations. Therefore the following section discusses the role that comparative advantage plays in tourism and destinations.

2.3.1 Comparative advantage in tourism

As noted, comparative advantage relies on the production factors of a country/destination and is seen as country-specific resource endowment (Hassan, 2000:240; Fourie, 2009:5; Arnold, 2014:452). These production factors or sources of comparative advantage encompass different elements when referring to tourism as the tourism industry is an amalgamation of various sectors (Presbury & Edwards, 2010:16) and is also an invisible national export (Goeldner & Ritchie, 2012:483). Furthermore, unlike other traded service industries, the tourism industry is highly reliant and defined by the user (tourist) of the service, especially because tourists travel to other destinations to make use of products or services (Du Toit, Fourie & Trew, 2010:3).

Comparative advantage theory's role is primarily rooted in tourism flow (Zhang & Jensen, 2007:229). The destinations' comparative advantages cover a range of attributes such as climate, location, natural resources, tourism awareness among local citizens, indigenous culture, accessibility, facility/land use requirements, environmental and carrying capacity constraints, infrastructure, labour availability, transportation costs, macroeconomic variables and government policies (Hassan, 2000:240; Zhang & Jensen, 2007:229; Du Toit *et al.*, 2010:7; Mazanec & Ring, 2011:727).

The natural endowments are typically exogenous comparative advantages, while the economic structure contributes to endogenous comparative advantages (Figure 2.1). The difficulty is to effectively utilise the destination's comparative advantages (factor endowments) to create a competitive position in the global tourism market. This implies an analysis of the region's economic structure, which can typically be executed through input-output (I-O) tables of a country or region (Briassoulis, 1991:493). A daunting task to undertake is evaluating a continent's comparative advantage, since most research focusses on individual countries, and very few cases are based on Africa. An African study by Eja, Joseph and Ojong (2012:426) identifies the success factors influencing Nigeria as a tourist destination, using a dynamic panel and ordinary least square (OLS) analysis. The results revealed that political instability, crime rate and variables for infrastructure development (telecommunication) influence Nigeria's visitors, which is expected to be factors in most African scenarios, including for this study.

Assessing the comparative advantage of a continent is simplified by evaluating the individual countries that gather collectively to form the continent and then identifying the common factors amongst these countries. Alternatively, if there are no comparative advantages, the comparative disadvantages could be identified and used for recommendation purposes. The following section investigates competitive advantage as well as Porter's (1980) competitive advantage theory.

2.4 Competitive advantage

Competitive advantage theory states that certain factors contribute to the global competitive environment of a specified industry. According to Lall (2001:18), competitiveness was measured on different levels and was progressively applied to various sectors. The contribution of Michael Porter to the competitiveness literature cannot be dismissed, nor the progression of measuring competitiveness. Porter's initial research (1980) focussed on the competitive forces that shape strategy, also known as Porter's five forces, which investigated the nature and degree of competition. The succession of the forces contributed to the

techniques that influence a company's/industry's (national) competitiveness (Porter, 1980), followed by an investigation into the effect of information (Porter & Millar, 1985) on competitive advantage. Advancing to competition in global industries (Porter, 1986), and finally addressing the competitive advantage of nations (Porter, 1990) signify the immense contributions. The competitiveness of nations (the diamond system) forms a basis for the investigation to follow, as it is concerned with the competitive advantage of a destination.

2.4.1 Porter's competitive advantage of nations

"National prosperity is created, not inherited", the prologue to Porter's competitive advantage of nations (Porter, 1990:73), opposing traditional economics and favouring the notion that nations, employing the innovative and developmental capacity of production, can harness competitiveness (Figure 2.1). Furthermore, the only meaningful concept of national competitiveness is productivity, whether it is the productivity of a nation's capital and labour employment, the influence of productivity on per capita national income or the productivity of human resources (Porter, 1990:76).

Nonetheless the meaning of productivity is to be determined. Productivity refers to the efficiency with which resources are used, by relating the quantity of inputs, notably employment of labour and capital, to outputs (Blake, Sinclair & Soria, 2006:1101). Productivity is not a well-understood concept, as the measures are not solely ratio-based on input and output, but also include a magnitude of different aspects, unrelated to quantifiable elements (New Zealand Tourism Research Institute [NZTRI], 2007:20; Mill, 2008:270). The level of productivity, in turn, sets the level of prosperity that can be achieved by an economy, by means of institutions, policies and factors that contribute towards productivity (World Economic Forum [WEF], 2012:4). According to Smeral (2007:27), productivity is mostly driven by physical and human capital, innovation and the competitive environment. This supports the notion that a nation's success is directly influenced by the dynamic, pressure-filled and challenging environment experienced by local industries (Porter, 1990:73).

Porter (1990:78) indicates that national competitive advantage (Figure 2.2) is a system that connects four broad attributes of a nation, which creates a social environment that challenges companies to compete. Firstly, as shown in Figure 2.2, factor conditions in standard economic theory, are production factors or factor endowments (Hassan, 2000:240; Zhang & Jensen, 2007:229; Du Toit *et al.*, 2010:7; Mazanec & Ring, 2011:727) and include labour, land, natural resources, capital and infrastructure, all which assist in determining trade flow. Secondly, demand conditions are paramount for international trade; but many would argue that globalisation of competition diminishes the importance of domestic demand. Even so, the

composition and character of the domestic market has an effect on how buyers' needs are perceived, interpreted and responded to (Baker & Cameron, 2008:89; Goeldner & Ritchie, 2012:286-288).

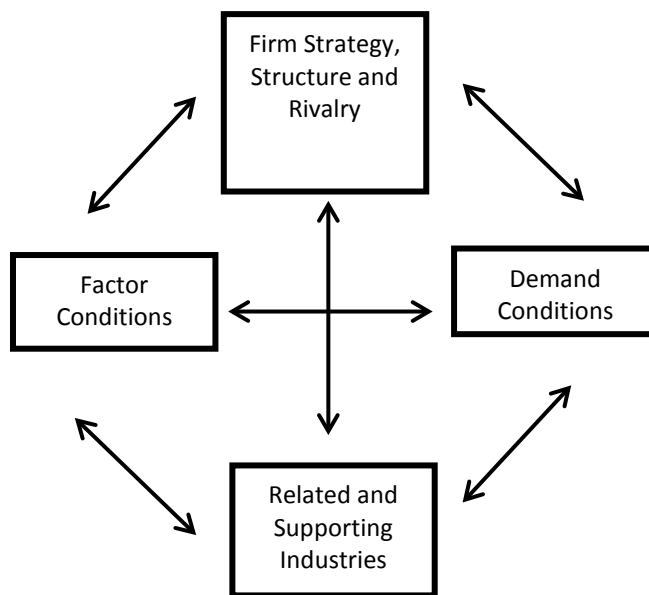


Figure 2.2: Determinants of National Competitive Advantage
Source: Adapted from Porter (1990:78)

Thirdly, the related and supporting industries (in a tourism context this refers to secondary aspects that indirectly influences travel, such as the banking sector), create advantages when suppliers are internationally competitive domestic suppliers, who deliver cost-effective inputs in an efficient, early, rapid and preferential way. Companies have the opportunity to influence their suppliers through research and development (R&D) to accelerate the pace of innovation (Carneiro, 2000:88; Lundvall, 2009:11; Ambec, Cohen, Elgie & Lanoie, 2013:3).

Lastly, the firm strategy, structure and rivalry (such as Porter's five-factor model, 1979) influence national circumstances and context which creates strong tendencies in how companies are created, organised, and managed, as well as determine the nature of the domestic rivalry. There are no, managerial systems, which are universally appropriate for creating, gaining or sustaining competitiveness in a particular industry. The type of education, place of employment and the commitment and effort by the individuals of a country largely influence a nation's success (Cantwell, 2005:550; Jin & Moon, 2006:196; Snowden & Stonehouse, 2006:166; Balkyte & Tvaronavičiene, 2010:349). This indicates that although broadly illustrated, the factors that shape national competitive advantage can be determined and its influence of tourism and destination competitiveness can be assessed. A further discussion follows in the next section.

2.4.2 Competitive advantage in tourism

Comparative advantage refers to a country/destinations factor endowments, whereas competitive advantage emphasizes resource allocation (Hong, 2008:11). According to Page and Connell (2014:640), competitive advantage denotes the lead that one organisation (destination) has gained over its competitors by means of offering better value, quality, service or brands. In other words, it refers to the increased efficiency of a destination, to produce experiences, less affected by destination substitutability. Furthermore, destinations are not merely the sum of products and services on offer but are rather the experience that guests (tourists) have during a visit. Pine and Gilmore (1999:45) introduced the notion of the experience economy, which illustrates a shift in the evolution of the economy, progressing towards experiences. Oh, Fiore and Jeoung (2007:119) support this and state that tourist destinations are positioned as experiences, supporting the notion that competitive advantage is the allocation of resources to create tourism experiences.

Mehmetoglu and Engen (2011:241) point out that to gain a competitive advantage, it is crucial for companies (destinations) to offer experiences that the market demands. This is not an easy task, as research conducted by Tarssanen and Kylänen (2005:141) illustrate, which indicates six essential elements for the creation of an experience. These six elements include individuality, authenticity, narrative, multi-sensory perception, contrast and finally interaction. The basis of this research is that tourists are co-creators of the experience and that satisfying demands are now more important than ever before.

If destinations, in this case Africa, are positioned as an experience, it is crucial to determine which aspects/factors influence its competitive advantage. Sustaining destinations in a global marketplace is a function of turning the destinations comparative advantages into a competitive position. Thus an investigation into destination competitiveness is consequently carried out.

2.5 Destination competitiveness

The most widely accepted concept of destination competitiveness, which is a comprehensive interpretation, proposes that it encapsulates a destination's ability to (1) increase tourism expenditure; (2) increasingly attract visitors; (3) provide satisfactory and memorable experiences; and (4) be profitable without affecting the well-being of the local residents or negatively impacting the natural capital of the destination (Ritchie & Crouch, 2003:2). Tourism competitiveness for a destination refers to the ability of a destination to enhance its attractive features for residents and non-residents (visitors), by delivering quality, innovative, and attractive tourism services to consumers (tourists) and to gain market shares in the domestic

and global marketplaces, while ensuring that the available resources supporting tourism are used efficiently and in a sustainable way (Dupeyras & MacCallum, 2013:14). According to Heath and Kruger (2009:38) destination competitiveness is related to the ability of a destination to deliver goods and services more efficiently, influencing the tourist experiences.

Ideally, the competitiveness should be determined by the attractiveness of the destination and the quality of products and services aimed at a specified market segment travelling to the destination (Navickas & Malakauskaite, 2015:38). Putting this in perspective, destinations need to be branded as distinct and extraordinary place, offering a diverse yet specialised experience, ensuring that substitutability, parity and competition are minimised (Morgan, Pritchard & Pride, 2004:5). Butler and Russell (2012:134) support this and state that the challenge for destinations is to create the right mix of conditions that ensures continued successful operations and competitiveness. The problem is determining which independent variables have direct influences on destination competitiveness. Crouch (2011:27) indicates that although there are more tourists travelling, the competitions between destinations (cities, countries and continents) are increasing, latching on to the charms of tourism revenue.

Moreover, destinations are developing unique brands by optimising resources, convincing tourists to travel (Crouch, 2011:27). This results in the integration of destination branding, which according to Cooper and Hall (2008:229) signifies the identity of a destination. Furthermore, destination branding helps to harness and promote the attractive features, core resources and attractors such as history, culture, landscape, people and destination attributes by building a brand (Page & Connell, 2014:375). This implies that in a global context, destinations are under immense scrutiny from tourists and the manner in which to satisfy visitors' needs.

The following section will investigate the development and evolution of a destination competitiveness model, to illustrate the difference between capitalising on tourism against product or service trade.

2.5.1 Towards a conceptual destination competitiveness model

Traditional trade theories (c.f. 5.3) formed the basis of destination competitiveness (see Figure 2.1). Although the following section investigates trade theories, a selected few namely Ricardo's comparative advantage theory, Heckscher-Ohlin's trade theory and Linder's hypothesis have been applied in Chapter 5. Theories and contributions by acclaimed economists include work such as:

- Smith's (1776) investigation into the wealth of nations
Smith contributed by introducing topics related to absolute advantage, the invisible hand and the division of labour to increase specialisation. Furthermore, Smith argues that government interference (control, tariffs and taxes) hampers the natural growth of a nation's economy, due to the absence of free trade (Butler, 2011:9). Smith proposes that specialisation provides a country with the ability to focus on the exportable goods/service which it excels in for self-sufficiency, and to import good/services that the country lacks to provide. This led to the introduction of competition and the elimination of monopolies (Cho & Moon, 2013:7).
- Ricardo's (1817) comparative advantage theory
The comparative advantage theory states that superior countries should specialise where it has the greatest absolute advantage, while inferior countries should specialise where it has the least absolute disadvantage. In doing so, and trading with one another, all countries could still benefit from international trade (Dorman, 2014:428). Ricardo's comparative advantage theory, which was based on labour productivity, did however not adequately explain the reason for the labour productivity differences between countries. The investigation into why countries differ regarding competitiveness resulted in the identification of factors that contribute to countries' competitiveness (Hong, 2008:5).
- Heckscher and Ohlin's (H-O) (1919) trade theory
The H-O theory focused on the relationship between countries' factor endowments, commodity trade patterns and the consequences of free trade on the functional distribution of income within a country (Appleyard, Field & Cobb, 2010:164). The theory states that comparative advantage arises from the differences in factor endowments. For example, the differences in countries are associated with the differences in factors of production which that country possesses, while products differ since the factors required to produce them are not the same (Lall, 2001:133).
- Stolper–Samuelson (1941) free trade theory
This theorem implied that free trade benefits the superior country (abundant factor) and harms the inferior country (scarce factor). Each country will export those commodities which are produced with its relatively abundant factors of production, while importing commodities that are produced from relatively scarce factors (McCulloch, 2005:227)

- Rybczynski's (1955) factor endowment and commodity output theory
This theory focusses on the relationship between factor endowments and commodity outputs. For example, if one factor should expand, it must be absorbed in producing the commodity intensively. Thus the expanding sector must be supplied with a dose of the non-expanding factor, which is only sourced from the contracting sector or industry. This implies that a country can change its relative factor endowments by changing its investment patterns, while factor endowments are fixed in the classical theories of Smith and Ricardo (Opp, Sonnenschein & Tombazos, 2009:138).
- Linder hypothesis (1961) country similarity theory
Predominantly demand driven, in contrast to many other trade theories, Linder's hypothesis explains international trade between countries with similar characteristics. The argument is driven by two assumptions, firstly, countries will export products which are popular in the domestic market, as manufacturers introduce new products to serve the domestic market so that economies of scale are reached and costs are reduced. Secondly, the exported product will be marketed to countries with similar tastes and income levels (Bukhari, Ahmad, Alam, Bukhari & Butt, 2005:308). The most significant contribution of Linder's theory is the identification of two critical variables, namely, economies of scale and domestic demand that assists in explaining international trade between similar countries and regions.

These theories have an enduring influence on the manner in which destination competitiveness is viewed and adapted (Cho & Moon, 2013:9). The traditional trade theories have been applied to many research topics, such as management (see Porter, 1980), national advantage (see Porter, 1990), world competitiveness index (see WEF, 2014), destination competitiveness and tourism enterprises (see Crouch & Ritchie, 1995), tourism competitiveness and societal prosperity (see Crouch & Ritchie, 1999), competitive destination and sustainability (see Ritchie & Crouch, 2003) and determinant attributes of destination competitiveness (see Crouch, 2011). The latter forms a fundamental part of this investigation.

Crouch (2011:29), by means of the destination competitiveness model, investigated the attributes that determine a destination's competitiveness. As seen in Figure 2.3, the conceptual destination competitiveness model consists of five main groups of attributes that are evaluated to determine a destination's competitiveness. Firstly, qualifying and amplifying characteristics are identified such as location, safety/security, interdependencies, awareness/image and carrying capacity. The assumption is that the first group of determinants make-up the entry level attributes needed to compete in a global market (Goeldner & Ritchie,

2012:349; Page & Connell, 2014:364). The second group, destination policy, planning and development, necessitates action from role players within a destination's tourism industry to define the system, establish philosophy/values, create a vision, position and/or brand the destination, to plan development, to analyse the collaborative and competitive potential of the destination, evaluate and monitor the results and finally to audit the process to identify the weaknesses (Goeldner & Ritchie, 2012:327; Sangsue, 2014:240; Pratt, 2014:209).

Thirdly, destination management addresses the need for organisation, marketing, ensuring quality service and/or experiences, providing information/research, human resource management, attaining venture capital and financing, managing visitors, rewarding resource stewardship and managing crises (Pearce & Schänzel, 2013:137; Page & Connell, 2014:137; Volgger & Pechlaner, 2014:65). The fourth group of attributes, core resources and attractors, are closely related to the endowment factors and are in many cases unique to a destination (Hassan, 2000:240; Zhang & Jensen, 2007:229; Du Toit *et al.*, 2010:7; Mazanec & Ring, 2011:727). These factors include physiography and climate of a destination, the distinct culture and history of a destination, the variety of activities available, the use of special events, the entertainment that the destination provides, the access to superstructures (depending on tourists demand) and market ties such as international co-operation agreements (i.e. the BRICS countries - Brazil, Russia, India, China, and South Africa).

The final group of destination attributes, supporting factors and resources, are aimed at infrastructure of the destination, the degree of accessibility, resources that are used as facilitators towards the tourism industry (for example banking), the hospitality experienced at the destination, the enterprise opportunity and finally the political will to achieve sustainable tourism for future development (Carneiro, 2000:88; Lundvall, 2009:11). The conceptual model (see Figure 2.3) also takes into account external forces such as the comparative and competitive advantages of the destination, which was discussed earlier (see section 2.3 and 2.4). The pressures from the competitive micro-environment and the global macro environment are also considered.

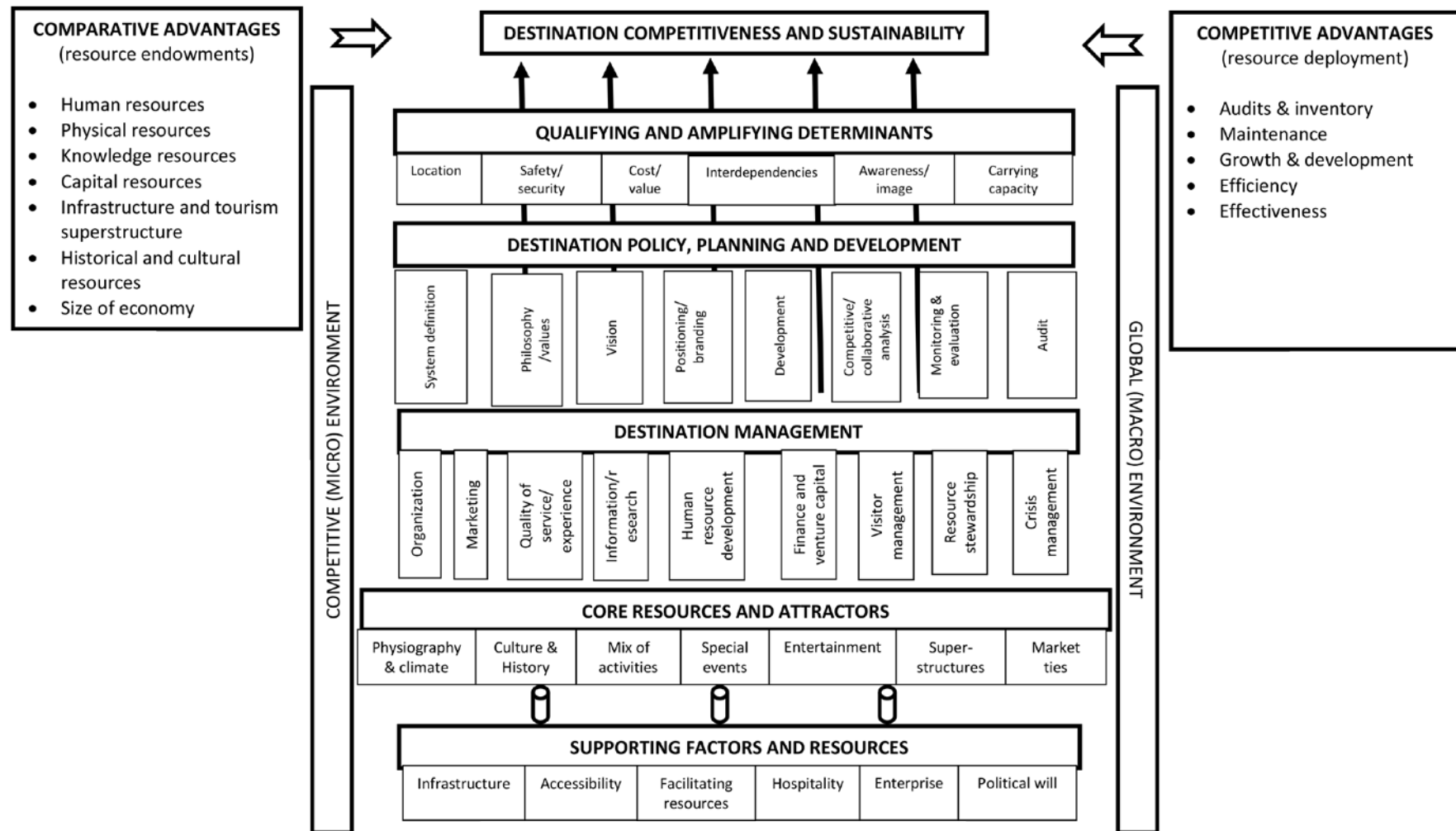


Figure 2.3: Crouch and Ritchie's conceptual model of destination competitiveness
Source: Adapted from Crouch (2011:29)

Crouch and Ritchie's factors are not so quantifiable and data is not as readily available for analysis. An explanatory model with latent variables and formative indicators was conceived (see Figure 2.4) by Mazanec, Wöber and Zins (2007:89) in which eight variables influenced destination competitiveness. These variables are summarised in Table 2.1.

Table 2.1: Destination competitiveness variables

Variables	Indicators
Openness	Visa index Tourism openness index Trade openness index Taxes on international trade index
Heritage and culture	Number of UNESCO heritage sites
Infrastructure	Road index Sanitation facilities index Water access index
Communication facilities	Internet host index Telephone mainlines index Mobile phone index
Social competitiveness	GDP per capita Life expectancy Newspaper index TV set index
Tourism price competitiveness	Hotel price index Purchasing Power Parity Index
Environmental preservation	Population Density Index (reversed) CO2 Emission Index (inverted) Environmental Treaties Index
Education	Adult Literacy Rate Combined Primary, Secondary and Tertiary gross enrolment ratios

Source: Adapted from Mazanec et al. (2007:89)

Mazanec *et al.* (2007:89) (see Figure 2.4) incorporated three measures of success of destination competitiveness which are: (a) Gradient (expresses sustained growth in tourism demand - gradient); (b) Ordinary market share (based on international arrivals - mshare_{real}); and (c) Distance-weighted market shares (due to travel between geographically proximate countries - mshare_{in}). The explanatory model includes quantifiable variables that enhance destination competitiveness. The model also measures the success of the destination competitiveness. This indicates that a standard for destination competitiveness and subsequently destination demand is achievable

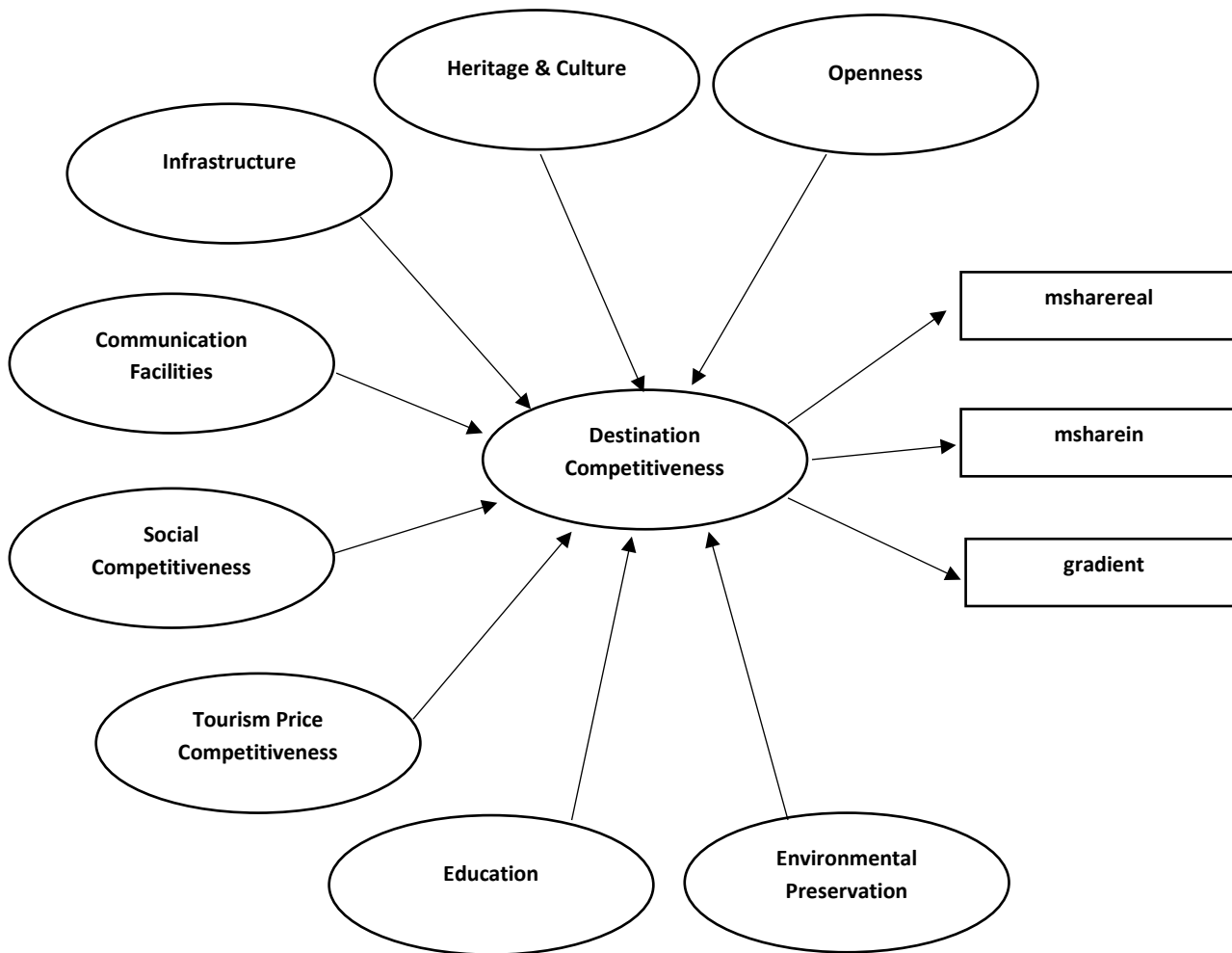


Figure 2.4: An explanatory model of destination competitiveness: latent variables and formative indicators

Source: Adapted from Mazanec *et al.* (2007:89)

2.5.2 Achieving destination competitiveness by means of competitive advantage

Mazanec *et al.* (2007:89) indicate that the success of achieving destination competitiveness can be measured through aspects such as the number of visitors attracted, the amount of money spent (foreign receipts), the number of jobs created and an increase in these demand metrics for a particular destination. As competition is rigid and not all is fair in the globalising tourism industry, and chances to gain success are diminishing. It is, important for destinations to identify which measures of success (advantages) are the most important, or which factors are to be avoided (disadvantages) in the tourism marketplace (Hassan, 2000:239). This is only viable when all the role-players in a particular destination are aligned towards a common goal, whether that goal is to increase the number of visitors or to change current unfavourable perceptions regarding the destination.

Dwyer, Forsyth and Rao (2000:9) refer to three broad categories of tourism demand determinants: (a) socio-economic and demographic factors such as population, income in origin country, leisure time, education and occupation; (b) qualitative factors such as tourist appeal, image, quality of visitor services, destination marketing and promotion and cultural ties; and (c) price factors such as the cost of tourism to the visitor (transport cost, accommodation cost, service costs, entertainment and food and beverage costs). These contribute to a destination's competitive advantage because comparative advantages (endowed resources) are not the main procurers of tourism activity anymore (see section 2.3.1). Gaining competitive advantage in the tourism industry (see section 2.4.2) is crucial, as focusing on the comparative advantages are becoming redundant due to the marginal differences between many destinations offering similar products (i.e. beautiful weather, friendly people, good beaches, etc.). The manner in which these comparative advantages are employed in creating a competitive advantage (how the resources are allocated) is decisive in the ever-growing experience economy.

Tourists, although not true for all types of travellers (such as passive visitors who are not as engaged in experiences) are in search of more, unsatisfied with offerings that are simply a coincidence of location or geographic placement. According to Oh *et al.* (2007:123) tourists are looking for experiences which satisfy their curiosities about destinations and excite them in the total experience. This emphasises the importance of investigating the competitive advantage and the associated strengths/opportunities and weaknesses/challenges of destinations. Since many countries are competitive concerning the attractiveness of its inherited resources (comparative advantages), the competitive deficit must be due to managerial or adaptable forces (Armenski, Gomezelj, Djurdjev, Đeri & Aleksandra, 2011:20).

Strengths/opportunities that are associated with a destinations competitive advantage include financial benefits; asset productivity; product structure and revenue composition (Gu & Gao, 2012:4); value generation (Haugland, Ness, Grønseth & Aarstad, 2011:282); knowledge transfer (Baggio & Cooper, 2010:1757); safety and security, as well as transport infrastructure (Kayar & Kozak, 2010:206); niche marketing and e-commerce procurement; cooperation and innovation; increased synergies and productivity; resource development (Soteriades, 2012:112); foreign exchange and economic welfare benefits (Croes, 2010:432); calculating net economic benefits; identify spending of different types of tourists; and calculate net (ROI) return on investment (Pratt, McCabe, Cortes-Jimenez & Blake, 2010:183) and mega sport events (Gong, 2012:8).

Associated weaknesses/challenges of destinations competitive advantage include: tourism greening policies; greater accessibility (transport infrastructure); technology sophistication (information communication technology); changing trends; political changes and instability (Page & Connell, 2014:625-626); public sector involvement and destination control (Fyall, 2011:343); flexibility in recruitment; skilled labour; legal framework; regulations; macro policy and education (Porter & Rivkin, 2012:17); terrorism and fuel costs (Wu, Lan & Lee, 2012:199); famine; drought; security; and conflicts and disease (Mayaka & Prasad, 2012:49).

It is possible for destinations to alter its competitiveness by either improving the strengths/opportunities or by minimising the impact of the weaknesses/challenges. The managerial constraint is, in many cases, the main problem that invites further challenges for destination competitiveness. If challenges are manageable, they can be altered to ensure success. In this context, success refers to the ability to attract a greater number of arrivals, or a higher portion of foreign tourism receipts.

2.6 Conclusion

The goal of this Chapter was to critically investigate destination competitiveness by means of exploring the theories associated with competitiveness (c.f. 2.2) and assessing the differences between the comparative (c.f. 2.3) and competitive advantage (c.f. 2.4). It also determined the role the theories play in destinations and tourism in general (c.f. 2.3.1 & 2.4.2). Included in the investigation are the possible weaknesses and strengths (c.f. 2.5.2) that can be diminished and/or obtained by managing a destination's competitive advantage.

It is clear that early economic and trade theories contributed profoundly to the development of competitiveness, but do not entirely or adequately explain the tourism phenomena of destination competitiveness. The existing destination competitiveness models do not provide an adequate explanation of the approach, especially with regard to a developing country context. Also, inadequate account is given on which quantifiable factors contribute to and/or explain the demand for a certain destination. It can furthermore be concluded from the literature overview that the use of comparative and competitive advantage, evokes an approach to destination competitiveness, which is fairly comprehensive regarding what could/should be included in an analysis of a developing country context.

The research is required due to the lack of literature from the perspective of a developing country and continent. Many case studies focus extensively on developed regions to identify the impacts of tourism on economic growth. Furthermore, various case studies are directed from a marketing or branding and image point of view. In spite of this, an in-depth analysis is

required, especially for developing countries and continents such as Africa, where several countries are still classified as Least Developed Countries (LDCs), to identify which factors might be burdening the development of tourism (particularly, in Africa). It has been established that the economic growth associated with travel is not the main concern in this investigation. Although growth and development are bilateral topics, the development of tourism is the primary concern in this research study.

In Chapter 3, the focus is exclusively on Africa and the origin, development and management of tourism on this continent. Particular reference is given to the opportunities and challenges faced, mostly in terms of the diversity of the region, people and approaches to tourism.



CHAPTER 3: A LITERATURE OVERVIEW OF AFRICA'S TOURISM

"A beautiful thing is never perfect" - Egyptian proverb

3.1 Introduction

Tourism has long been advocated as an alternative strategy for economic development and social reconstruction, especially in less developed (rural) areas (Briedenhann & Wickens, 2004:71). According to Geohive (2015:online) the continent of Africa is only about 40.4% urbanised, which means that 59.6% of Africa is classified as rural. Despite being less urbanised, Africa is endowed with various natural resources, which is still the backbone of the tourism industry (Kweka, Morrissey & Blake, 2003:335). Africa's composition, whether viewed from a geographic, political, or social sphere, influences the economic arena of the continent. Geographically, Africa is the second largest continent in the world. Africa is comprised out of 54 individual countries (recognised by the African Union and the United Nations) of which 32 are coastal countries, 16 are landlocked countries (of which eight are North of the Equator and eight are South of the Equator) and six are island nations (four in the Indian Ocean and two in the Atlantic Ocean). Five distinct regions namely Northern-, Eastern-, Southern-, Western- and Central-Africa are present (Esterhuysen, 2013:3). Politically, Africa has experienced much tension from the slave trade and conquest of Africa (15th century), Africa's colonisation (19th century) to independence (1960's) and present day conflicts (Curtin, Feierman. Thompson & Vansina, 1995:17; Falola, 2002:189; Worger, Clark & Alpers, 2010a:14). Socially, Africa is still lagging behind mainly due to poverty, lack of education, lack of social equality and diminished safety and security (Torres & Momsen, 2004:297). Economically, the majority of least developed countries (LDC's) are African countries, which fuels the other issues burdening the continent due to slower or stagnated economic growth, subsequently resulting in less tourism development (Bardy, Drew & Kennedy, 2012:278).

Due to the concerns raised above, most Western societies have various misconceptions regarding Africa, generalising all African countries as disease stricken, undeveloped, extreme poverty-burdened, uneducated and malnourished (Baldauf, 2011:online). These are extreme examples and are in some cases true of a few African countries. However, it does not represent a trend throughout Africa. According to the African Competitiveness Report 2011 (World Economic Forum [WEF], 2011:xv), tourism offers opportunities for evaluating the strengths, but also the challenges that contribute to Africa's competitiveness.

The advantages that Africa possesses to compete more efficiently in the global market include Africa's price competitiveness, the affinity for tourism, abundant natural resources, and efforts towards environmental sustainability. However, the challenges that deter tourism development are obstacles related to safety and security, health and hygiene, poor infrastructure, and the need for skilled human capital. The opportunities for the African tourism industry include visa schemes, community-based tourism, utilising natural resources to benefit the poor and leveraging Africa's cultural assets (African Development Bank [AFDB], 2015:6).

The United Nations Conference on Trade and Development (UNCTAD, 2014a:36) confirms that over the past two decades most African countries have shown significant growth and stabilisation of their economies, increased government spending on education reform and feeding schemes. What is more African countries have improved access to health care and have devised policies and procedures to ensure their success in future. Nonetheless, it is still detrimental to investigate if these developments and improvements will result in larger market shares of domestic, regional and international tourism, and if so, which of those improvements would have the most satisfactory results. An investigation to the current state of Africa's tourism industry, which comprise of inbound (international tourists from outside Africa), outbound (African's travelling abroad outside of Africa) and intra-African travel (Africans travelling within Africa), provides an assessment possibility that holistically capture Africa's opportunities.

Therefore, this Chapter provides an overview of Africa's tourism industry specifically regarding inbound, outbound and intra-African travel. It briefly describes Africa's competitiveness as a tourism destination, and broadly investigates Africa's different regions and the current state of tourism in each region.

3.2 Africa's tourism industry

In this section, the investigation focuses primarily on the complexities of tourism, the factor that contributes towards travelling to, from and within Africa and then provides a perspective on African tourism.

3.2.1 Complexity of tourism

Tourism is a very sensitive and volatile industry, which is heavily dependent on ancillary products and services that contribute to the overall travel experience (Page & Connell, 2014:10). Tourism is, in essence, a dynamic integrated system of products and services, and the interrelationship between the different components make tourism a multidisciplinary area of study (Baggio, 2008:1). Furthermore, measuring and analysing tourism is complicated as

the tourism industry has no traditional production functions, no constant measurable output and no common structure across various destinations or even the same country (Organisation for Economic Co-operation and Development [OECD], 2001:13).

Within the challenged state of critically defining the tourism industry, the most widely accepted and modest interpretation of a tourist (domestic, inbound or outbound) is as a traveller (or overnight visitor), if his/her trip includes an overnight stay (United Nations World Tourism Organization [UNWTO], 2014:12). Furthermore, a visitor is a traveller taking a trip to a main destination outside his/her usual environment, for less than a year, for any primary purpose (business, leisure or other personal purposes) other than to be employed by a resident entity in the country or place visited. A visitor (domestic, inbound or outbound) is classified as a tourist (or overnight visitor) if his/her trip includes an overnight stay, or otherwise as a same-day visitor (or excursionist) (UNWTO, 2014:12). According to the United Nations Statistics (UNSTATS, 2008:15), "internal tourism is the tourism of visitors, both resident and non-resident, within the economic territory of the country of reference". For the purpose of this study inbound African tourism refers to all African nationals travelling within any regional African country or territory, excluding his/her home country, for tourism-related purposes. The following discussion concentrates on tourism to Africa, and the factors which might influence travel behaviour.

3.2.2 The African perspective

According to the AFDB (2014:9), tourism is one of the most rapidly expanding and dynamic sectors with the potential to boost inclusive economic growth across the whole of Africa. Tourism also has the tendency to reduce poverty, which is well aligned with the African Development Bank's objectives. Africa is burdened by social exclusion, income inequality, lack of infrastructure, as well as vulnerability to social, political, and environmental risks. Concerns with regard to regional cooperation, especially visa regulations, should be addressed for at least two-thirds of African countries demand visas from other Africans (AFDB, 2014:10). Moreover, tourism can serve as a catalyst for inclusive, green and sustainable growth due to the influx of new international travellers from Eastern and Central Europe, South America and Asia, while still recognising the traditional source markets such as the United States and Europe (AFDB, 2014:10). In 2013, Africa received 6% of international tourist arrivals, contributing to 2.79 million employments across Africa.

African countries can supply a unique tourism experience. However, much of the success is dependent on international aid, foreign direct investments (FDI) and cooperation internationally and regionally (World Bank, 2013c:21). The most worrisome challenges

concern infrastructure (roads, water and electricity) and superstructure (venues, lodging and recreation) developments (Devlin, 2014:online). Ever since Africa's independence, infrastructure has been deteriorating, as colonial economies were export centred and most African economies are underdeveloped due to undiversified product offerings (Falola, 2002:212). Several African countries relied on the export of raw materials. Exports were limited to only a few, or sometimes only one product (for instance Ghana's dependence on cacao). Other challenges included: (1) Strong colonial ties; (2) Monopolised foreign-owned trade companies; (3) Road and rail networks designed to export goods to Europe; (4) Limited cross-border trade; (5) Minimal industrial development; and (6) Limited formally educated politicians and economist which only escalated the problems (Curtin *et al.*, 1995:132; Falola, 2002:232; Worger, Clark & Alpers, 2010b:115). Despite these challenges, growth in Africa has not been limited.

Controversy about the current state of Africa is widely exaggerated, although Africa has seen rapid economic growth. The growth only resulted in further inequality of wealth distribution, leading to a prominent middle class and a realisation that the continent is still underdeveloped regarding infrastructure (World Bank, 2016:1). Africa is undeniably one of the world's richest natural resource continents, boasting with access to some of the most precious resources. According to Trade Out of Poverty (2016 online), Africa possesses extensive natural resources like oil reserves (12%), gold (40%), platinum and chromium (80-90%). All of these are embedded beneath 60% of global underutilised land and vast timber resources. In this case unfortunately, resource abundance does not mean wealth, since Africa has access to approximately 2% of global GDP to support 13% of the global population (Burgis, 2015:5). This is known as the paradox of plenty or "natural resource curse", which states that countries or region with abundant natural non-renewable resources (minerals and fuels), tend to have lower economic growth rates and worse development outcomes, which is the case for many African countries (Frankel, 2010:3). Various countries turn to industrialisation as a means to solve Africa's development concerns. Yet, tourism's integrated nature is dependent on partial-industrialisation (Leiper, 2004:38). Infrastructure development is a crucial driver of tourism, and investigating the travel to (inbound), from (outbound) and within (intra-African) Africa assists in understanding which other aspects are necessary.

While traditional growth models mainly advocate capital investment and technological development as the main sources of growth, more recently tourism has also been identified as a driver of economic growth. The tourism-led growth hypothesis (TLGH) indicates the positive relationship between the earnings from international tourism and economic growth, especially for developing countries (Sahli & Nowak, 2007:426). Even though African countries

are considered developing, the TLGH could not be confirmed for all African countries, especially in cases where African countries offered more sophisticated and developed economies (Nene & Taivan, 2017:164; c.f. 1.1). Therefore, one may assume that country specific differences, particularly economic composition and size, explains tourism growth in certain African countries; however, the TLGH is also confirmed for less sophisticated African countries.

As previously mentioned tourism is a diverse industry and can be classified as a non-standard type of export. The temporal relationship between tourism and economic growth establishes a bi-directional relation, since tourism can lead to economic growth or vice versa, (Brida *et al.*, 2016:2). Song, Dwyer, Li and Cao (2012:1666) state that the empirical evidence that tourism is related to economic growth has delivered inconclusive results, as many studies are biased. This is supported by earlier research by Smeral (2003:79) stating that the bias is either towards changes in demand (demand bias) or the productivity difference between tourism and manufacturing (productivity bias).

The ambiguity of the relationship between economic growth and tourism creates unique challenges, especially from an African perspective. These challenges place greater strain on Africa's tourism industry, in particular for inbound foreign tourists. Inbound tourism is also partially affected by travel distance (especially the U.S.) as continents closer to Africa require less travel time (AFDB, 2014:10). According to Kibara, Odhiambo and Njuguna (2012:517), on national and local level, tourism promotes economic growth as a result of growing agricultural, industrial and service sectors and due to the labour intensiveness of tourism. On the other hand, Blake (2008:513) notes that depending on the link that people have with the tourism industry, tourism can either hold benefits or drawbacks. According to the United Nations Economic Commission for Africa [UNECA] (2015a:128), the travel (40.2%) and transport (25.2%) sectors dominate Africa's service exports for 2013. The importance of tourism services to African economies are vital, which is partially the result of an expansion of the aviation industry, although private investment in the sector is still limited in many African countries.

3.2.3 Travelling to Africa: Inbound tourism

Inbound tourism refers to "the activities of a non-resident visitor within the country of reference on an inbound tourism trip" (UNSTATS, 2008:15). For the purpose of this study inbound tourism refers to tourism activity attracted from other continents to Africa, and does not include intra-African travel. The traditional tourism source markets to Africa have always included the United States and Europe (Western Europe), partially due to colonial ties. Factors that

influence travel to Africa could include a myriad of aspects such as income, relative price, travel time, distance (costs), visa regulations, safety and security concerns and health (Ebola) and hygiene concerns, and infrastructure (Kester, 2003:204; Naudé & Saayman, 2005:386; Phakdisoth & Kim, 2007:235; Fourie, 2009:13). Of importance is how these factors influence inbound tourism to Africa. Investigating the importance of these factors could reveal the shortcomings that African countries are currently facing with regard to attracting international visitors. The following factors might have an influence on foreign travel behaviour, as Africa is unique regarding inhibitors of tourism.

- Income

Income is a popular tourism demand variable since it is closely related to the tourist's propensity to travel. It also plays a significant role in choosing a destination (Song, Li, Witt & Fei, 2010:65). However, income is prioritised, and a more realistic measure would be discretionary income, but due to lack of data, national income is a preferred variable. Income is an important demand variable due to the effect it has on travel behaviour i.e. choosing a destination, air carrier, accommodation and the length of the trip. This indicates that people with a certain degree of financial freedom will have the means to travel (Jara-Díaz, 1998:5). Income could therefore be seen as the fundamental variable in determining whether people might travel, or not. Graham (2000:112) mentions that leisure travel should be considered more of an essential product rather than a luxury. Conversely the tendency to assume that higher income will lead to higher disposable income is easily justified, coupled with the notion that tourism and travelling are still luxury products/services/experiences, even though it is more accessible and readily available than before (Eilat & Einav, 2004:1317). The influence that income has on inbound tourism to Africa is closely related to spending propensity and price competitiveness of destinations. Higher income tourists from source markets that travel to Africa can easily justify a longer stay in a particular country or a region and spend considerably more on various tourism products such as accommodation, transport and entertainment. Linked with favourable exchange rates, income provides a means to travel.

- Exchange rate

Africa is still relatively affordable to foreign visitors, as a result of exchange rates (see Table 3.1). As seen in Table 3.1, except Tunisia, the top grossing tourism countries in Africa have far weaker foreign exchange rates, compared to the source markets. Understandably, exchange rates and income are two different aspects, but if the exchange rate is favourable, the income need not be very high to travel to Africa. Middle-income groups from the US, Europe and Great Britain have the means to travel to Africa, whereas most Africans will have

to fall into a high-middle income group to do the same, which inhibits travelling from African countries.

Table 3.1: Foreign Exchange in the Top Five African Countries

Currency	1 US Dollar	1 Euro	1 British Pound
Egyptian Pound	7.82500	8.58089	12.1260
South African Rand	12.6254	13.8451	19.5650
Moroccan Dirham	9.85000	10.8015	15.2641
Tunisian Dinar	1.97000	2.16030	3.05281
Ethiopian Birr	20.9000	22.9189	32.3877

Source: XE.com (09/08/2015)

- Price competitiveness

In demand literature, relative price (price competitiveness) is often used, but in two different contexts. According to Seetanah, Sannasse and Rojidi (2015:364) the first is the relative price between the destination and the origin country, while the second focuses on the relative price of the destination and the competitors (substitute destinations). Factors such as exchange rates, the consumer price index and its relation to inflation, taxes, consumer and government spending and investments influence the prices of products or exportable goods. Also, the domestic market rather than the global market, influence tourism prices as most tourist spending is directed at the consumption of non-tradable goods and services, which cannot be exported in the traditional sense (Kareem, 2009:10). Since the domestic market controls the price, it could lead to exploitation of tourists. Additionally, Eilat and Einav (2004:1320) state that tourism to developing countries is unresponsive to price fluctuations, which could partially be attributable to favourable exchange rates. The price competitiveness of Africa (regions or countries) should then be assessed in the two ways stipulated above. For the first instance, most African countries are very price competitive in relation to the origin country or source markets, i.e. goods and services have more value for money in Africa compared to European countries. In the second instance, African countries that can be seen as substitute destinations have yet to evaluate the extent of price competitiveness especially in terms of the level of service, access to goods and services, quality and determining if leakages are more prone to happen because of multinational hotel/resort groups (Oyewole, 2004:7). The challenge for African countries or regions is therefore in comparing the cost for tourists in choosing a destination (i.e. the cost of a week in South Africa compared to a week in Malawi). This is also a fundamental economic principle of opportunity cost, where the potential to gain or lose something (money or value of an experience) is dependent on the different alternatives (Mankiw, 2011:54).

- Transportation costs

Transportation costs can accumulate quickly due to various factors such as accessibility, distance, travel class and taxes. Medlik (2012:107) explains that with regard to air transport, long-haul and short-haul transport, the cost stems from the difference in aircraft types, operational and traffic handling techniques and in marketing. The primary distinction is found in the measurable length of the haul. Long-haul flights last more than five hours. Most long-haul airlines deliver services on board to try and ensure maximum comfort for travellers, which increases the cost of travelling (Moufakkir, 2010:99; Aragão, 2015:2). Ferrer-Rosell, Coenders and Martínez-Garcia (2015:10) state that transport cost have an influence on the overall length of stay at the destination, as cheaper transport generally results in longer stays. However, low cost carriers (LCC) have enabled many tourists to take short trips (weekends) to destinations that offer short travel time. Knudsen, Rich and Nielsen (2014:45) have the opinion that the relationship between travelling cost and travel demand is inconclusive, as data is unavailable, and travel cost is expected to increase income elasticity. Furthermore, as the distance increases between source market and destination, the cost of transport also increases. This results in difficulties as most LCC are short-haul airlines, and the majority of African destinations are situated far from source markets, with the exception of North African countries.

- Visa regulations

Visa restrictions can be considered as a screening mechanism that hampers the free flow of tourism (Beenstock, Felsenstein & Rubin, 2015:358). Then again, some countries like Turkey, India, Cambodia, Bahrain, Singapore and even Nigeria now offer an electronic visa (e-visa) application that speeds up the visa process. For example, South Africans travelling to Turkey can apply for a Turkish e-visa online and will receive it within a few minutes with no associated costs. Song, Gartner and Tasci (2012:399) mention that although strict visa regulations are a global norm, the potential impact on depressing tourism demand and weakening the economy is unavoidable. According to Li and Song (2013:252), visa restrictions result in the loss of tourism receipts. This view is also supported by Neumayer (2011:4) and Lawson and Roychoudhury (2016:827). In Africa, many countries have visa requirements, whether travel visas have to be applied for pre-departure or received on arrival. Visa fees are in most cases also a supplementary income for governments to process visa applications, with some African countries charging up to \$70 for a tourist visa. Depending on the degree to which a country or region is dependent on tourism, the introduction of easily applying for a visa, could benefit tourism growth. One such an example is the Seychelles that depends heavily on the tourism sector (with as much as 70% of currency earnings from the tourism industry). Thus, there are no visa restrictions, no matter the nationality of the traveller (Economy Watch, 2016:online). In 2015 South Africa introduced stringent visa regulation when travelling with children. This

had an adverse influence on the number of foreign arrivals during 2015, with as much as a 6% decline in the number of visitors (Reuters, 2015:online).

- Safety and security

The multidimensionality of safety is associated with a broad, complex, range of components. Different safety attributes include political security, public safety, health and sanitation, personal data security, security in communication, disaster protection, environmental security, obtaining authentic information, and quality assurance of services (Kôvári & Zimányi, 2011:60). According to George and Booyens (2014:451), the perception of tourists towards safety and security is often overwhelmed by negative word-of-mouth that skews reality. Africa is perceived as a riskier destination, compared to other regions (excluding the Middle East). Risks include political and social instability, poor governance, war, terrorism, crime, health concerns, cultural and language barriers, primitive conditions and economic concerns such as volatile currency exchanges (Lepp, Gibson & Lane, 2011:676). The WEF (2015:44) states that Africa's competitiveness regarding safety and security indicates that North Africa is the highest performer, followed by eastern and southern Africa, but the majority of safety and security concerns remain within the Western and Central African states.

- Health and hygiene

Health and hygiene ultimately play a significant role in choosing a destination, especially when Africa is considered. This might be because some African countries are burdened with various diseases including malaria, HIV/AIDS, tuberculosis and cholera. In 2015, The World Health Organization [WHO] (2015:66) measured that more than half a million Africans died from malaria, of which the majority were children, and 70% of new HIV cases were from sub-Saharan Africa, with over 25 million Africans living with HIV, which was worsened by the prevalence of tuberculosis. It was found that central Africa was the region most affected by cholera while western Africa was burdened by Ebola (especially Guinea, Liberia and Sierra Leone) which had detrimental effects on the economy, and ultimately tourism in all these regions.

- Infrastructure

Infrastructure is vital for economic performance, as it is evident that economically stable countries have better-developed infrastructure. Infrastructure also provides a strong tourism base and contributes to a more attractive tourism image (Navickas & Malakauskaite, 2015:37). As previously mentioned, air transport infrastructure and ground transportation infrastructure play a competitive import and export role in tourism (Kayar & Kozak, 2010:204).

Underdeveloped or a lack of infrastructure in Africa is widely experienced across the continent, with a few exceptions. Yet, the majority of African regions are still weak regarding transport (public transport differs significantly from most European countries), tourism infrastructure (airports, roads, access to electricity, water and the Internet), tourism supra-structures (accommodation, entertainment or attractions) and the availability of service providers. Comparing African countries in this regard is a difficult task since countries such as South Africa or the Seychelles cannot be compared to countries such as Angola or Mozambique. Besides, colonial infrastructure development was primarily aimed at and supported the extraction of resources to be taken to Europe, making the colonial infrastructure inappropriate.

- Poverty

In the developing and middle-income African countries, infrastructure and supra-structure are available and efficient. In contrast, least developed countries (LDC's) have the greatest need for development. This is a result of the weaker output (reflected as economic performance) of African LDC's, compared to other LDC's (UNCTAD, 2014b:82). Furthermore, globally 48 countries are classified as LDC's, of which 34 are African countries. This means that 71% of the poorest and weakest segments of the international community are African states, which represents an excess of half a billion (624800000) people viewed as disadvantaged. Dwyer, Forsyth and Papatheodorou (2011:5) explain that poverty alleviation and the role that tourism plays in economic development has received limited research attention, despite the fact that tourism is considered as an efficient source of income and employment (Sharpley, 2015:194). In effect, tourism in the developing world is not a lucrative sector for the unskilled employees. Nonetheless, it creates jobs and provides income to support families. The fact that the majority of LDC's worldwide (34 of 48) are African countries is very worrisome and could be a potential determinant of low inbound travel flows to the continent. According to the World Bank (2013b:163), land availability, investor access to finance, taxes on tourism investments, low levels of tourism skills, lack of security, safety and high crime, public health, visa requirements, red tape and bureaucracy are all factors that threaten Africa's tourism. Furthermore, governments need to embark on major developments that comprise air transport infrastructure, appropriate accommodation and access to tour operators (World Bank, 2013b:164).

3.2.4 Travelling from Africa: Outbound tourism

Outbound tourism refers to "the activities of a resident visitor outside the country of reference, either as part of an outbound tourism trip or as part of a domestic trip" (UNSTATS, 2008:9). For the purpose of this study, outbound tourism refers to tourism activity that emerges from Africa to other continents and does not include intra-African travel. Similarly, to inbound

tourism, the same factors influence outbound tourism, only in the opposite directional flow. Therefore, the income of Africans influence African travel, the weaker exchange rates hamper outbound tourism, and the costs associated with travelling abroad diminishes outbound tourism.

In 2013, outbound tourism from Africa accounted for 3% of global air service market of which 30% were international travels outside the African region (International Air Travel Association [IATA], 2014:32). For the vast majority of Africans, travelling outside Africa is more than a luxury product or service, but it is an unattainable reality, because of the high costs associated with international travel and strict visa requirements. As Africa's economies are expanding and more countries are classified as low-medium and high-medium income countries, this trend will change over time as more Africans will have the financial resources to travel. Economic freedom is not the only inhibitor to travel or the only factor that influences destination choice. In fact, the factors that are discussed in the inbound tourism section (see 3.2.2) are factors that also contribute towards outbound travel behaviour.

All African countries are classified as developing economies (yet some are more developed than others). Africa is still home to the greatest number of LDCs (71%). According to the United Nations Department of Economic and Social Affairs (UNDESA) (2014a:online) LDCs are classified by three distinct criteria namely gross national income per capita, the human asset index (HAI) and the economic vulnerability index (EVI).

3.2.5 Travelling within Africa: Intra-African tourism

For the purpose of this study, intra-African tourism refers to travel between African states, countries and regions, and is confined to the African continent. In a regional analysis, trade is considered a substantial influencer. Africa's traditional trade partners remain the European Union (EU25) and the United States. In 2014 the combined imports (54,3%) and exports (46,7%) represented the majority of trade for Africa. Emerging markets (Brazil, China, India, Russia, Turkey and Thailand) have combined imports (45,7%) and exports (53,3%) which represented a prominent share in Trade (AFDB, 2016:28). Emerging markets have surpassed traditional markets in terms of exports. In 2014, Intra-African trade was 18%, while intra-regional trade reflected much higher and far more prominent trade for Europe (69%), Asia (52%) and North America (50%) (WEF, 2016:online). The lack of trade was a result of high transaction costs, complicated immigration procedures, the limited capacity of border officials, costly import and export policy procedures and a lack of investment in a trade association, high transportation costs, and logistics all impacting regional tourism on a large scale (see Box 1).

Box 1: The effect of non-tariff trade barriers

In central Africa, on the banks of the Congo River, are two capital cities that face each other namely Brazzaville (Republic of Congo) and Kinshasa (Democratic Republic of Congo). The border separating them is the Congo River (about 4km across) and is expected to be Africa's largest metropolitan area by 2025, with a population of 16.9 million inhabitants. Due to high travel costs, fewer people have the means to cross the river (World Bank, 2012b:online).

Non-tariff barriers also influence employment opportunities on the continent. Projections indicate that improved cross-border policies could eradicate Africa's 400 million unemployed youth (<15 years of age). It will also increase global competitiveness and decrease reliance on western economies (World Bank, 2012b:online). Considering data from 2010, 48% of sub-Saharan Africans were living in extreme poverty with less than \$1.25 per day (World Bank, 2013c:1). As previously mentioned, outbound tourism from Africa accounted for 3% of international travel in 2010. Subsequently 70% was within the borders of Africa (IATA, 2014:vi). Although this indicated that Africans travel within Africa, the extent that Africans travel within Africa still had to be determined as well as if most Africans travel within regional blocs or, as an example, if they travel vast distances from north to south.

According to Saayman and Saayman (2012:1315), South Africa's primary tourist markets (2003-2009) are neighbouring and other regional African countries, in fact, the majority of these countries are Southern African Development Community (SADC) countries, primarily motivated for shopping purposes (shopping tourism and tourist shopping). In this instance, South Africa is a wholesale destination, and the research suggests that the relationship between trade and tourism for South Africa and other African countries does exist (Saayman & Saayman, 2012:1325).

This could also indicate the importance that trade plays in tourism expansion or the effects of tourism on trade. Similarities between business (trade) and tourism are evident in Tanzania, where the top three source markets include Zambia, South Africa and Kenya, caused by Dar es Salaam's port (National Bureau of Statistics [NBS], 2014:24). These source markets (excluding South Africa) form part of the Common Market for Eastern and Southern Africa (COMESA) (see Table 3.2). This confirms that trade relations between countries within a regional community eases travel. Also, tourism integration across Africa (north to south) though very complex, has been recognised by the World Bank (see Box 2).

Box 2: Open Africa Project

Project Open Africa intends to implement a plan which would become a replicable model of community-based tourism development that is symbiotic with conservation, applicable in any area in Africa or elsewhere in the world, with the broad impact of positively changing grassroots level behaviour. The initial design of this project envisions encompassing four separate components namely: (1) Develop routes specific to the corridor; (2) Mainstream nature conservation into existing routes; (3) Build capacity for tourism marketing, monitoring & evaluation and knowledge management; and (4) Project administration management (World Bank, 2006:1-2). The project involved six countries, 58 routes and created around 28000 jobs (Open Africa, 2015:online).

Due to Africa's scale, it would be wise to investigate the African Union's (AU, 2015a:online) Regional Economic Communities (RECs) aimed at economic integration on the continent as a necessity for economic development (see Table 3.2). The African Economic Community (AEC) facilitates the interaction between the REC's to create free trade areas, customs unions, a single market, a common central bank, and a common currency to establish an economic and monetary union similar to the European Union. RECs or "trading blocs" are not only responsible for economic integration between the member states, but also facilitate the movement of people between countries and over borders.

3.2.5.1 Regional economic integration

The concept of regional economic integration or regionalism refers to the voluntary process of increasing interdependence of economies from different regions specifically about free trade areas, customs unions, common markets and economic and monetary unions (Cardoso & Ferreira, 2000:401). Furthermore, the author recognises the importance of political integration between regional countries, which is inseparable from economic integration. The latter being most African countries' largest drawback, as political integration is the creation of a sense of community with similar values within a geographic territory (Hyde-Price, 1997:17).

Economic and political integration are complementary, and functions symbiotically because joint economic and political integration improve financial performance and increase competition from all participating countries (Brou & Ruta, 2006:192). Tourism is often described as a catalyst for regional economic development through job creation, the increase of per capita income, the development of infrastructure, its contribution to the skilled labour markets and economic diversification, the tourism sector's affect on the economy of regions, countries and continents (Cardoso & Ferreira, 2000:402). However, tourism is also very dependent on safety, security and political stability. Thus, tourism can contribute to growth and competitiveness if the political economy is favourable.

As a subfield of international economics and international trade theory, regional economic integration (REI) is a response to slow domestic progress. Particularly as a consequence of tedious negotiations concerning multidimensional improvements in market access, leading to an accelerated process between cooperating countries (Huq, Clunies-Ross & Forsyth, 2009:13; Balassa, 2013:2). REI also touches on development economics, not to be confused with economic development, which promotes economic growth (progress) by considering factors such as health, education, working conditions, domestic and international policies and market conditions of developing countries. An examination of the macro-economic and micro-economic factors related to the economic structure of a developing world could result in national and international growth (Huq *et al.*, 2009:15). Africa's regional economic communities are aimed at regional economic integration (AU, 2015a:online) through applying trade and market integration, macro-economic policy convergence, financial and monetary integration, and peace, security, stability and governance.

a) Trade and market integration

The Action Plan for Boosting Intra-Africa Trade (BIAT) contains seven identified clusters aimed at addressing constraints and challenges of intra-African trade. This is then to result in the enhancement of the size and benefits of trade to attain sustainable economic growth and development. The clusters include: Trade policy; Trade facilitation; Productive capacity; Trade-related infrastructure; Trade finance, Trade information; and Factor market integration (AU, 2015b:online). Trade and market integration is fundamentally one of the most important objectives of the regional economic communities (RECs) in Africa (Table 3.2).

b) Macro-economic policy convergence, financial and monetary integration

Regional Economic Communities (RECs) have adopted standard macro-economic policy frameworks and convergence targets, underpinned by monetary and fiscal cooperation. A continental monetary union and the harmonisation and integration of financial systems and markets across the continent requires a climate of macro-economic stability, monetary and budgetary integration and active trade and economic relations (AU, 2015b:online).

Table 3.2: RECs recognised by the AU

Regional Economic Community, Headquarters	Participating Countries	Established
The Economic Community of Central African States (ECCAS), Libreville, Gabon	Angola, Burundi, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Equatorial Guinea, Gabon, Republic of the Congo and São Tomé and Príncipe	1964 10 members
The Economic Community of West African States (ECOWAS), Abuja, Nigeria	Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo	1975 15 members
The Intergovernmental Authority on Development (IGAD), Djibouti City, Djibouti	Djibouti, Eritrea, Ethiopia, Somalia, Sudan, South Sudan, Kenya and Uganda	1986 8 members
The Arab Maghreb Union (AMU), Rabat-Agdal, Morocco	Algeria, Libya, Mauritania, Morocco and Tunisia	1989 5 members
The Southern African Development Community (SADC), Gaborone, Botswana	Angola, Botswana, the Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe	1992 15 members
The Common Market for Eastern and Southern Africa (COMESA), Lusaka, Zambia	Djibouti, Eritrea, Ethiopia, Egypt, Libya, Sudan, Comoros, Madagascar, Mauritius, Seychelles, Burundi, Kenya, Malawi, Rwanda, Uganda, Swaziland, Zambia, Zimbabwe, Democratic Republic of Congo and South Sudan	1994 20 members
The Community of Sahel-Saharan States (CEN-SAD), Tripoli, Libya	Togo, Ivory Coast, Guinea-Bissau, Liberia, Ghana, Sierra Leone, Comoros, Guinea,, Kenya, São Tomé and Príncipe, Equatorial Guinea, Central African Republic, Eritrea, Djibouti, Gambia, Senegal, Egypt, Morocco, Nigeria, Somalia, Tunisia, Benin, Burkina Faso, Chad, Libya, Mali, Niger and Sudan	1998 28 members
The East African Community (EAC), Arusha, Tanzania	Burundi, Kenya, Rwanda, Tanzania and Uganda	2000 5 members

Source: AU (2015a)

c) Peace, security, stability and governance

The AU established the Mechanism for Conflict Prevention, Management, and Resolution, which reinforces the RECs to guide peace and governance security in their constituencies. The principal objectives include: (1) Timely prevention and resolution of intra-state and interstate conflicts; (2) Promoting peace, security and stability among member states; (3) Peaceful coexistence and good neighbourliness; (4) Peaceful settlement of disputes; (5) Advancing good governance, including principles of democracy, rule of law, accountability, transparency, social justice and promotion and protection of human rights and equal opportunities; and (6) Adhering to the fundamental rights of the Universal Declaration of Human rights and the African Charter on Human Rights and People's rights (AU, 2015b:online).

As the African Union anticipates that full regional economic integration (REI) might occur in about the next decade, it is vital to understand how regionalism and regionalisation can contribute to Africa's tourism industry.

3.2.5.2 Benefiting from regional economic integration

Firstly, regionalisation (an amalgamation of regional globalisation) has its roots in globalisation, which, according to Stiglitz (2004:466), is the integration of countries and people of the world. Globalisation results in the reduction of transport and communication costs, as well as the collapse of artificial barriers that curbs the flow of goods, services, capital, knowledge and people (to a lesser extent) across borders. From the definition, regionalisation just accounts for a particular region, and not the entire world. This is to be expected as trading and doing business with neighbouring countries would/should be more affordable. Rodrick (2000:28) clarifies that globalisation on a greater scale addresses international economic integration. Globalisation directly influences regional economic integration (REI). International economic integration considers the world in which the markets for goods, services and production factors are perfectly integrated. The benefits to the tourism industry are that trade eases the ability of residents of those countries to travel in between (Hjalager, 2007:442).

Secondly, regionalism (related to REI) provides economic stability within a region (for example the Southern African Development Community). The benefits that member states and/or countries receive from their involvement in the regional economic community include two perspectives. Firstly, static effects, which are mainly concerned with production proficiency and the welfare of the people, are measured. Secondly there are the dynamic effects which relate to the member countries that prolonged growth rates (Carbaugh, 2013:268). Static benefits include trade liberalisation (especially concerning custom unions or free trade areas)

influencing the welfare of the member countries. The effects can either be trade creation effects (increases welfare) or trade diversion effects (reduces welfare), also named welfare effects which are closely related to resource allocation and competitive advantage (Madyo, 2009:53). Dynamic benefits include uniform prices, lower transaction costs, and certainty for investors, economies of scale, factor productivity and enhanced competition as a result of larger markets being created and free trade due to customs unions (Carbaugh, 2013:271). Furthermore, markets are combined, which reduces monopolies as more companies may tender from member countries and then result in higher levels of competition (Madyo, 2009:47).

According to Frost and Shanka (2001:44) regionalism is the integration and cooperation between adjacent states, where regional tourism development is dependent on each state or member country that cooperates and integrates attractions, capital, infrastructure, natural and human resources to serve the needs of domestic and international tourists. Moreover, developing regional tourism will have an influence on intra-African travel, which supports the notion that African countries will not have to be over-dependent on foreign international tourist.

As previously mentioned, Africa, under the leadership of the African Union, recognises eight regional economic communities (RECs), each consisting of various countries (see Table 3.2), with some countries showing an overlap across some RECs. The role of the African economic community (AEC) is to integrate RECs and countries economically while establishing a continental free trade area (CFTA) by 2017. A further aim is the integration of the RECs into a single customs union with a common currency, central bank and parliament by 2028 (Kamau, Muluvi & Rettig, 2013:online). If this is achieved, the movement of goods, services, capital, and people, across the continent and within regions, will be greatly mobilised and efficient. This will lead to greater technology and knowledge transfer, which should accelerate economic growth. This again stresses the importance of regional economic integration (REI) and the role that regional economic communities (RECs) play in Africa's economic community (AEC). These benefits will also improve Africa's overall competitiveness.

3.3 Africa's current competitiveness as a tourism destination

The past 15 years, African growth rates have averaged 5% with a rapid population growth which holds the potential to become one of the world's largest consumer markets. Moreover, nearly half of the African population still lives in extreme poverty and income inequality remains some of the highest in the world, worsened by low productivity across sectors such as subsistence agriculture, manufacturing and services (WEF, 2015:xiii). Africa still relies heavily on agriculture and economies that are largely dependent on resource-driven growth and a

large informal sector. The service sectors in Africa are prominent, but larger developmental responsibility could lead to more competitive advantage as the service sectors reduce barriers for gender inequality. Still, service exports from Africa remain low compared to overall exports, indicating a re-evaluation of services in structural transformation (WEF, 2015:xv).

The following section investigates tourism as an exportable product and/or service and the influence that it has in shaping the tourism industry in Africa and contributes to development.

3.3.1 Africa's travel exports

Mishra, Lundström and Anand (2011:11) indicate that tourism is a traditional and classic example of travel exports, which differs from other service exports as the consumer (tourist) moves to the location of the provider (destination). Fourie (2011:212) states that Africa's travel service exports are some of the world's most rapidly growing sectors, compared to other developing countries. In 2006 travel exports contributed to 65% of South Africa's total service trade, compared to the world average of 38%. South Africa is in no way a realistic measurement for other African countries, since South Africa has a fairly well developed infrastructure, access to information and technology and competitive tourism products and services (Fourie, 2011:219). As indicated in Figure 3.1, the total inbound spending by the international tourist (visitor exports in US\$, billion) for 2014 in Africa, for 30 countries, specifies the importance of travel exports for the continent (AFDB, 2015:online). The countries with travel exports exceeding US\$1 billion are indicated in Figure 3.1, as the top 10 countries, with Egypt and South Africa taking the lead on the continent.

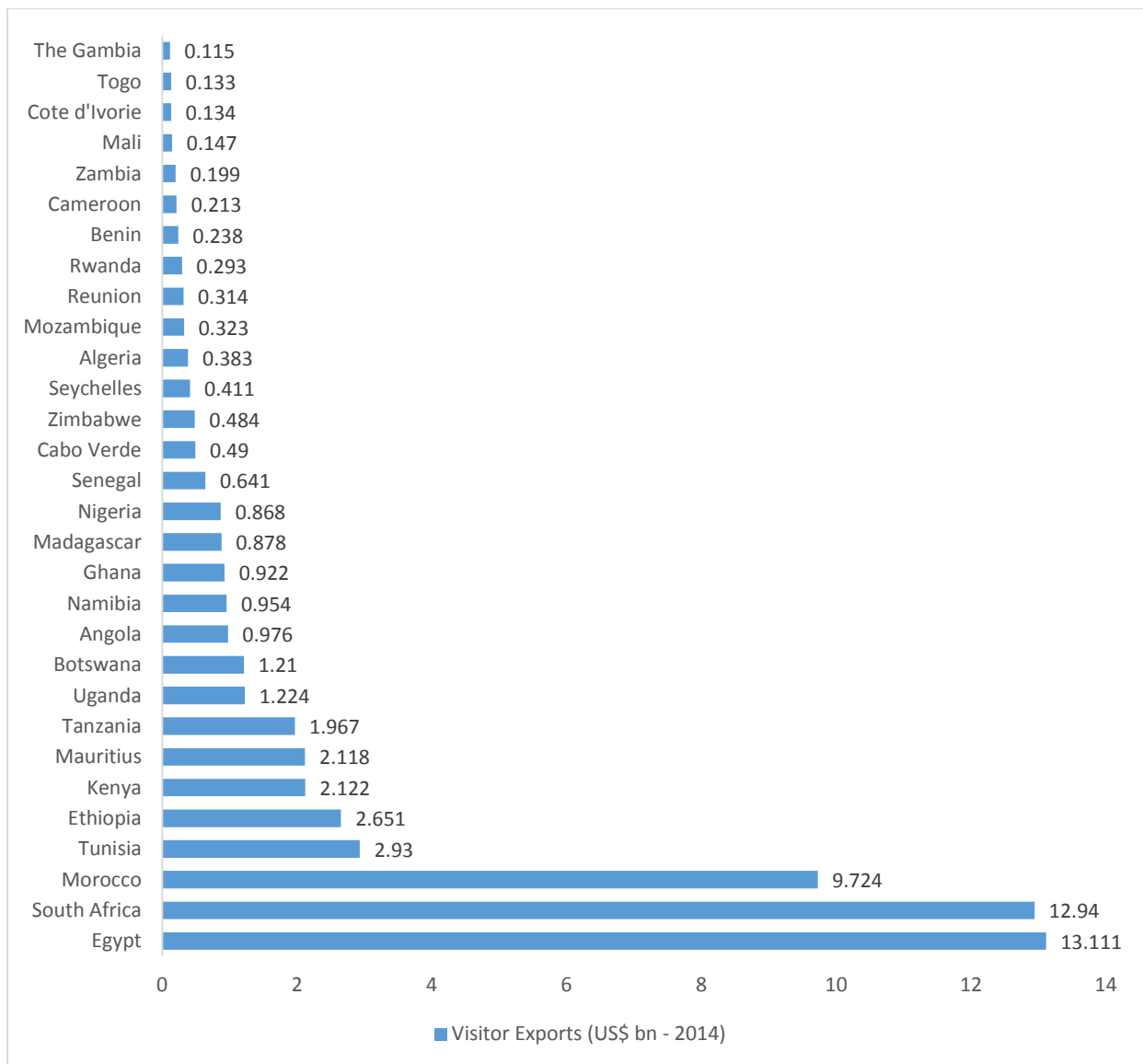


Figure 3.1: Total inbound spending by international tourists (Visitor exports, US\$, billion)
Source: Adapted from the AFDB (2015:online)

Figure 3.1 illustrates that northern, eastern and southern Africa destinations are the prominent travel export earners, while western and central Africa are lagging behind, probably due to health concerns (c.f. 3.2.3:g). Kaplan and Çelik (2008:14) concluded that “a significant positive relationship between international tourism exports and economic growth exists” and Kareem (2013:138) confirmed this for Africa.

The following section investigates the different regions of Africa, to establish the most prominent features of the region(s) as well as supply a brief overview of political and economic circumstances. This is vital since African regions differ greatly from each other, and have different agendas for tourism and tourism development.

3.4 African regions

This section investigates the five regions of Africa namely northern, eastern, southern, western and central Africa. A summary of each region is provided, as well as, the tourism and economic conditions, referring to the regions strengths and challenges.

3.4.1 Northern Africa

The African countries north of the Sahara include Algeria, Morocco, Tunisia, Egypt, Libya, Mauritania and Sudan. North Africa seems to be prospering. According to the Africa Report (2014a:online), the averages for the region are shown in Table 3.3.

Table 3.3: Summary of Northern Africa

Northern Africa	Averages
- Urban population	56%
- Life expectancy	70 years
- Adult literacy rates	71%
- Mobile phone penetration	111%
- Child deaths	33 (per 1000 live births)
- International tourism receipts (2012)	13% (% of total exports)

Source: Africa Report (2014a:online) and WEF (2015:online)

UNDESA (2015:6) indicates that the global life expectancy average is around 70 years, but the average life expectancy in Africa is still around 60 years. Table 3.3 confirms that with regard to life expectancy, the northern Africa states compare well with global averages. Furthermore, northern Africa is the most urbanised on the continent and has the highest percentage of mobile phone penetration. The lowest percentage of child deaths on the continent occur in northern Africa states, and a sizable percentage can be accounted for considering international tourism receipts (see Figure 3.1).

3.4.1.1 Tourism conditions

The economic activity in northern Africa, and especially tourism, contributes to prominent export earnings. However, the discrepancies in wealth cause significant employment problems and political unrest is still heavily disruptive (see Table 3.4). Tourism in North Africa is stagnating only due to political reasons (British Broadcasting Corporation [BBC], 2016:online).

Table 3.4: Economic activity in Northern Africa

Sector	Description
Tourism	Tourism is of increased importance in North Africa. Morocco and Tunisia are high tourism earners. Along the coasts and the interior of the region are a variety of luxury resorts and hotels, mid-priced business convention centres, and budget accommodations for backpackers and “adventure” tourists. This has important implications for the political structure of these nations as well as for the people who live in these countries. Stability and safety are essential for attracting tourism. Thus, governments that can contain unrest and stability can actively seek tourism as an alternative economic industry. Morocco, Tunisia, and Egypt are popular destinations while the recent instability of Algeria and Libya makes these less appealing to European, American, and Asian travellers. Most North African countries do require visas. However, these can be obtained at arrival and fees vary between \$25 (Egypt) and \$160 (Algeria). Exchange rates overall benefit visitors (North American or European), and the value of \$1 equals to 1.95 Tunisian Dinar or 290 Mauritanian Ouguiya.
Economic strengths and challenges	North Africa is one of the wealthiest regions of Africa, due both to its proximity to European markets and its natural resources. The proximity also reduces transportation costs and travel time from most European destinations. Libya often has the highest GDP per capita of the continent since it produces large amounts of petroleum. There is a great diversity of wealth within North African countries, though the region's nations (with the exception of Libya, which is slightly higher due to oil revenues) all have GDP per capita of \$1000-\$2000. This disparity of wealth and significant poverty, both in urban slums and in rural areas, are some of the factors that have led to increased anti-government movements, including fundamentalism have caused people to immigrate away from the political instability.

Source: Exploring Africa (2015a:online)

3.4.2 Eastern Africa

The African countries to the East and forming the Horn of Africa include Uganda, Tanzania, South Sudan, Somalia, Seychelles, Rwanda, Kenya, Ethiopia, Eritrea, Djibouti, Comoros and Burundi.

Table 3.5: Summary of Eastern Africa

Eastern Africa	Averages
- Urban population	29.25%
- Life expectancy	59 years
- Adult literacy rates	72%
- Mobile phone penetration	43%
- Child deaths	67 (per 1000 live births)
- International tourism receipts (2012)	24% (% of total exports)

Source: Africa Report (2014b:online) and WEF (2015:online)

Table 3.5 indicates that, compared to northern Africa, eastern Africa is lagging behind in almost every aspect. Urbanisation is low, the overall life expectancy is up to 11 years shorter than the average, mobile phone penetration comprises almost just one-third, and child deaths are double that of North African countries. International tourism receipts are higher than western Africa, but this could be because eastern Africa is larger and comprise more countries, especially tourism-dependent countries such as Tanzania, Seychelles, Kenya, Ethiopia and Comoros (see Figure 3.1).

3.4.2.1 Tourism conditions

The economic activity in eastern Africa concerning tourism is mostly satisfactory. The region is more stable, but political pressures and coups are still worrisome circumstances. Furthermore, infrastructure weaknesses are causing stagnation in growth. Due to the plentiful wildlife in the region, poaching is an ever growing concern in protecting wildlife. Tourism infrastructure such as hotels, resorts and lodges are fairly well developed. Interregional trade and prosperity are still under pressure as neighbouring countries are still experiencing political turmoil (see Table 3.6).

Table 3.6: Economic activity in eastern Africa

Sector	Description
Tourism	The success of the tourism sector has benefited from immense private sector investments in hotels, transportation, marketing and product development and dedicated government efforts in conservation. While offering the traveller an impressive range of options for exploration and relaxation, there is still enough to spare for the investor. This is a region that presents an incredible potential for one hoping to exploit the countless opportunities the industry offers. The challenges the sector has experienced include narrow range and poor tourism products, inadequate and inefficient infrastructure, insecurity, negative adversaries from source markets, and stiff competition from relatively cheap destinations. Exchange rates are still in favour of Western travellers with major tourist countries in the region varying between hundreds or thousands, depending on the currency. Travel time from Europe to major airports in the region ranges from six to eight hours. Visas are required for most (except Seychelles) countries, and fees vary between \$50 (Uganda) and \$70 (Tanzania). Infrastructure across the region is moderately developed, and numerous wildlife lodges and national parks are available, with poaching also being a significant problem.
Economic strengths and challenges	Eastern Africa has the largest number of RECs and regional intergovernmental bodies on the continent. Multiple memberships result in duplication of resources and conflicting goals and policies. Regional GDP growth was propelled by rising oil output in South Sudan, mineral exports in Ethiopia and Tanzania, and on-going reforms across the region. Kenya is the regional trade hub and the transport link to the world. A robust services sector in the region would complement and integrate markets as well as boost demand for goods manufactured in the region. East Africa is a region overflowing with potential from agriculture to mining to tourism to energy investment opportunities. With a population of more than 130 million, East Africa boasts one of the largest single bloc regional markets in Africa.

Source: East African Community [EAC] (2015a-c:online)

3.4.3 Southern Africa

The African countries to the South are Angola, Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe. The Africa Report (2014c:online) reveals the averages for the region as shown in Table 3.7.

Table 3.7: Summary of Southern Africa

Southern Africa	Averages
- Urban population	39.4%
- Life expectancy	56 years
- Adult literacy rates	79%
- Mobile phone penetration	79%
- Child deaths	58 (per 1000 live births)
- International tourism receipts (2012)	6.7 (% of total exports)

Source: Africa Report (2014c:online) and WEF (2015:online)

Urbanisation is still relatively low in this region, while average life expectancy is very low, even lower than the African average of 60 years (see Table 3.7). However, adult literacy and mobile phone penetration are higher than in the eastern African countries. Lower levels of child death occur in the south compared to the East, but is still almost double than the northern African countries. Except for South Africa and Mauritius (see Figure 3.1), the region could perform better concerning international tourism receipts.

3.4.3.1 Tourism conditions

Southern Africa is very well equipped regarding infrastructure to accommodate tourists. The region is weighed down by bureaucracy, crime, xenophobia, excessive government spending and corruption. Visa requirements are also burdening the tourism sector, and security problems have been raised. Compared to North Africa, southern Africa is the second largest region with regard to tourist arrivals (see Table 3.8). Environmental threats such as poaching are also becoming more problematic, especially in transfrontier, national and private parks in the region. Business, and ease of doing business in the region are well equipped for foreign investment (Bremmen, 2016:online).

Table 3.8: Economic activity in Southern Africa

Sector	Description
Tourism	Southern Africa is home to a large number of wildlife and plant species that are sought-after for a variety of reasons, including medicinal uses and trophy hunting. High levels of exploitation, exacerbated by habitat loss, threaten the survival of many species. In the SADC region, there are 18 existing or potential Trans Frontier Conservation Areas (TFCAs) in both terrestrial and marine environments covering over 700,000km ² . Fairly well-developed tourism industry with resorts, lodges, hotels and parks are available. Visa requirements in the region vary with countries like South Africa implementing strict travel rules for children, and other like Lesotho has no visa requirements for stays that are up to 14 days. The majority of the region, excluding Angola and Malawi, has stable exchange rates which are still favourable towards Europeans and Americans. The region is further away from source markets, compared to North Africa, and yet tourism is a thriving industry.
Economic strengths and challenges	Inflation has kept pace with interest rates in many southern African States and differences in economic development among nations have widened. Furthermore, many States are not deeply integrated into the global economy. A reduction in international trade and investment during the initial stages of reform was even observed. However, many contributing factors other than financial policy have impacted the economic development of the SADC region, i.e. lack of infrastructure, labour issues, and regional conflict. Due to political and security problems in the SADC region, investment has traditionally been low. However, SADC policies promoting stronger cooperation among countries have lessened such issues in recent years and have, as a result, attracted significant investment. Tax incentives created under the advisement of SADC, still draw funding into the region. In particular, countries with large resource industries – Angola and South Africa – receive extensive foreign investment. As the global economic climate recovers, further Foreign Direct Investment is expected to capitalise on other industries and countries whose productive potential remains untapped.

Source: Southern African Development Community [SADC] (2015a-d:online)

3.4.4 Central Africa

The central African countries are Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Equatorial Guinea, Gabon, Republic of Congo and São Tomé and Príncipe. The Africa Report (2014e:online) reveals the averages for the region and are shown in Table 3.9.

Table 3.9: Summary of Central Africa

Central Africa	Averages
- Urban population	50.25%
- Life expectancy	55 years
- Adult literacy rates	71%
- Mobile phone penetration	72%
- Child deaths	84 (per 1000 live births)
- International tourism receipts (2012)	17% (% of total exports)

Source: Africa Report (2014e:online) and WEF (2015:online)

As indicated in Table 3.9 half of the population in central Africa is urbanised with very low life expectancy; which is even worse than in the South. Compared to East Africa, adult literacy rates are similar; however mobile phone penetration in central Africa is much higher. The number of child deaths is the highest in the Central region compared to the remainder of Africa. Adult literacy rates are acceptable, as well as the mobile phone penetration.

3.4.4.1 Tourism conditions

Central Africa is one of the least developed regions on the continent, which also makes tourism a more challenging sector to explore. The current military and political unrest in the region is causing devastation across the region. Furthermore, the natural resources of the region could provide exceptional opportunities especially regarding water-based tourism activities (see Table 3.10). Precious commodity prices due to the region's natural resource endowment are opening a platform for more stabilised trade. Terrorism in the region is also deterring tourism investment and arrivals (Alle, 2015:online).

Table 3.10: Economic activity in Central Africa

Sector	Description
Tourism	International markets influence travel easily and due to global economic weakness, exports of goods and services such as tourism, FDI, and official development assistance fluctuates. The most pressing matter for tourism in the region is the lack of infrastructure to support tourism development. Wealth, in terms of natural resources is high with the region holding about 50% of the continent's water resources. This could be used more efficiently concerning adventure or fishing tourism. Infrastructure is still the primary concern for the region, and the underdevelopment is causing major leakages from the economy. Politically the region is unstable, but strides have been made in terms of democracy. Recent political unrest in the region is deterring infrastructure developments.
Economic challenges	The continuation or worsening of the displacement of populations to neighbouring member countries could lead to instability. The rise in piracy in the Gulf of Guinea could affect marine shipping, especially of petroleum products exported by countries in the sub-region. A possible return of instability in Chad could also cause a degree of instability in other regional countries. Large spending out of oil wealth, poverty, income inequality and formal unemployment (especially youth unemployment) remain high. Greater political stability had an immense impact on growth. Annual growth in resource-rich countries as a result of high commodity demand also had a significant influence. Ease of doing business and improved investment climates are opening new international markets.

Source: UNECA (2011:12); International Monetary Fund [IMF] (2013:5); OECD (2015:78)

3.4.5 Western Africa

The African countries to the West include Benin, Burkina Faso, Cape (Cabo) Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. The Africa Report (2014d:online) reveals the averages for the region and are shown in Table 3.11.

Table 3.11: Summary of Western Africa

Western Africa	Averages
- Urban population	43.6%
- Life expectancy	57 years
- Adult literacy rates	50%
- Mobile phone penetration	70%
- Child deaths	74 (per 1000 live births)
- International tourism receipts (2012)	13.3% (% of total exports)

Source: Africa Report (2014d:online) and WEF(2015:online)

Table 3.11 shows that the life expectancy in western Africa is higher when compared with the central and southern regions. Urban population is nearly at 50%, but adult literacy rates are low. Mobile phone penetration is acceptable, and higher compared to eastern Africa. However, the number of child deaths is very high, second only to Central Africa.

3.4.4.1 *Tourism conditions*

Tourism is still not a priority in the vast majority of the region, with few tourism destinations available. Infrastructure is still somewhat underdeveloped, and the region had negative publicity, primarily because of Ebola. Safety, democracy and development insecurity, coupled with underdevelopment and unfulfilled promises, cause political tension which deters foreign investment in the region (see Table 3.12). Tourism has suffered greatly due to external forces, as the tourism industry was making progress with encouraging visitor numbers in the late 2000's. The growth is currently lacking cause by political unrest with Boko Haram and terror attacks in the region (Alle, 2015:online)

Table 3.12: Economic activity in Western Africa

Sector	Description
Tourism	Apart from the unique case of Cabo Verde, which has made tourism a priority, the region has few "tourist destinations." To date, only Ghana and Senegal have passed the significant threshold of one million international tourists. (Nigeria, which had passed the threshold in 2008, has fallen below since 2011.) In 2012, the region as a whole welcomed 4.5 million tourists, which generated US \$3.2 billion in revenue. These figures represent respectively 14% of international arrivals and 13% of tourism revenues recorded in sub-Saharan Africa this year, and 8% and 6% respectively of the African total (North Africa included). Fears of Ebola had a severe impact on Guinea, Liberia and Sierra Leone in 2015. This also deterred tourism arrivals, and influenced government spending due to emergency support of social and health programmes (Dixon, 2015: online). These challenges are also coupled with weak infrastructure.
Economic challenges	Overall, the impact of these free zones in West Africa, particularly on local economic development, has been uncertain at best. Geared for the most part towards export manufacturing, free zones have as yet done little to diversify economies or to reinforce the entrepreneurial fabric of host countries. Improving the image and attractiveness of West African countries for investors will require targeted strategies, focusing, for example, on the specialisation of a particular sector, which can be pitched to investors through promotion and marketing activities. The crises in terms of safety, democracy and development and the insecurity, underdevelopment and the difficulties in fulfilling the social contract are worsening the issues in western Africa. The development of oil production is also a very crucial aspect. Internal conflicts, local crises, intra-national conflicts, civil wars and separatist insurgencies have always had local causes and implications. Instability does not stop at the national border. Confining conflict prevention and management, as well as post-conflict programmes within national boundaries, may be counter-productive.

Source: Economic Community of West African States [ECOWAS] (2015a-d:online)

3.5 African tourism overview

The top African tourism performers are notably located in northern and southern regions (see Table 3.13). The northern African region attracts more visitors compared to the other regions. Still, this might be as a result of the proximity of northern Africa to Europe and the Middle East. The advantage of southern Africa to attract the number of visitors is the rich diversity of tourism offerings.

Table 3.13: African Tourism in 2012

2012	Number of arrivals	Share of arrivals in Africa (%)	Revenue in millions of US\$	Revenue share in Africa (%)
Northern Africa	29,234,000	47%	18,161	45%
Eastern Africa	6,340,000	10%	4,803	12%
Southern Africa	21,250,00	34%	13,692	34%
Central Africa	1,398,000	2%	422	1%
Western Africa	4,532,000	7%	3,241	8%

Source: Weigert (2015:online)

Table 3.13 depicts African tourism to be still underdeveloped in certain regions, especially central Africa. Many developing countries, such as the countries in Africa, are turning towards tourism as an opportunity for economic and social development (Cárdenas-García, Sánchez-Rivero & Pulido-Fernández, 2015:207). The problems that most African countries have in common are infrastructure deficiencies or poor infrastructure to cater for the needs of tourists. Northern Africa is still the leader in terms of its share in tourism arrivals (47%), which could be due to the proximity to Europe. However, southern Africa is also presenting strong tourism performance (34%), even though it is located far from source markets. Currently, the share of tourism in the other regions (eastern, central and western) is worrisome. Even so, if political tensions do not dissipate, tourism growth and the potential for development is an unobtainable reality. Foreign trade investments, especially from China, are contributing heavily to development. Sino-African trade reached \$126.9 billion in 2010, with the largest trade countries being Angola, South Africa, Sudan, Nigeria, and Egypt (Alessi & Xu, 2015:online). Furthermore it is estimated that Sino-African trade reached \$300 billion in 2015 (China Daily, 2015: online).

3.6 Conclusion

The aim of Chapter 3 was to provide an overview of Africa's tourism industry (c.f. 3.2), concerning inbound (c.f. 3.2.3), outbound (c.f. 3.2.4) and intra-African (c.f. 3.2.5) travel. Furthermore, the complexities and African perspective were provided (c.f. 3.2.1 & 3.2.2). A brief overview of Africa's competitiveness as a tourism destination was given (c.f. 3.3) with

reference to travel exports (c.f. 3.3.1). Africa's different regions and the current state of tourism in each region were broadly investigated. The regions were divided into the five known regions namely northern Africa (c.f. 3.4.1), eastern Africa (c.f. 3.4.2), southern Africa (c.f. 3.4.3), central Africa (c.f. 3.4.4) and western Africa (c.f. 3.4.5). This investigation of the appearance of Africa's tourism, comprised of inbound, outbound and intra-African travel has holistically described the continent opportunities. The opportunities that African countries face are mostly manageable. Countries, and subsequently regional economic communities (RECs), have the opportunity to showcase Africa's abundant natural resources and heritage to attract a greater share of inbound tourism to the continent. Since many African countries have the ability to provide similar experiences, policymakers should be aware of unique country or regional specific strengths that provide a competitive advantage. For some, these strengths might be a natural phenomenon such as the great migration in East Africa, or culinary experiences such as the wine routes in South Africa. Delivering distinctive experiences that are out of the ordinary has the ability to attract foreign visitors.

Considering intra-African travel, the opportunities are far more politically and economically challenged. Since intra-African trade is low (18%), policymakers and regional economic community organisations should group together to ensure that the free movement of goods, services, and people across the continent is facilitated. This could possibly lead to more robust development and diversification of economies. This will enable Africans to work more freely across border, moving people with specialities to regions where training and development might be needed. This could be an answer to Africa's vast unemployment rate. The tourism and economic condition for each region was briefly discussed and it was identified that the continent continues to struggle with infrastructure deficiencies and political or military instability. As to outbound tourism, the improvements that will contribute to greater inbound and intra-African travel will propel African outbound tourism. Only when Africa's poverty is at a manageable level, and the majority of households have sufficient income to participate in tourism activities, will outbound tourism flourish.

Clearly, the continent has vast untapped potential in terms of tourism development and the idea that regional integration will ease pressures of economic development is also realised. Moreover, African leaders will have to prioritise tourism at a national, regional and intra-African level to ensure that the continent benefits holistically from the tourism sector, and not overly relies on it as a result of the volatile nature and interdependence of tourism in the global market. The following chapter provides a brief overview and supplies empirical results on inbound African tourism.



CHAPTER 4: INBOUND AFRICAN TRAVEL USING A PANEL DATA APPROACH

“Knowledge is better than riches” – Cameroonian proverb

4.1 Introduction

As a prologue to this Chapter, the previous two chapters (Chapter 2 and 3) focused on contextualising this thesis in terms of destination competitiveness (Chapter 2) and the challenges facing the tourism industry in Africa (Chapter 3). The overall goal of this study is to explore Africa’s potential as a globally competitive destination and travel market, by investigating the determinants that influence inbound, intra-African and outbound tourism arrivals in order to obtain a holistic view of Africa’s potential as a global competitive tourism role player. Chapter 4 therefore focuses on modelling inbound tourism to Africa and discusses the approach, data and variables, as well as method and results. A brief overview follows on the challenges that African countries face in terms of tourism.

In recent years the African tourism economy has seen a steady growth in the number of foreign tourist arrivals. However, this growth is only prominent in a few African countries (Naudé & Saayman, 2005:366), as seen in Chapter 3. The fact that tourism is important for economic development through influencing employment, exports, tax income generation and the stimulation of infrastructure provision makes tourism a very attractive industry for developing countries. The growth has not been harnessed effectively in Africa, yet (Fayissa, Nsiah & Tadasse, 2008:807). Fourie and Santana-Gallego (2013:347) state that tourism is a catalyst for economic and social development, especially in terms of alleviating poverty, boosting employment and the creation of entrepreneurship and small businesses. The question that remains to be answered is, what should African countries do to benefit more comprehensively from tourism; or in more relatable terms, how might African countries increase their tourism market share? Lim (1997:845) is of opinion that a few standard tourism flow factors can determine tourism demand, which include income from the country of origin, price differentials, travel costs, exchange rates, competing destinations and marketing expenditures, to name but a few (c.f. 3.2.3).

To contextualise the evolution of this research, it is important to note that during the late 1990’s attention was focused on economic drivers or the exchange rate differentials, while during the early 2000s more thought went into identifying outliers beyond economic drivers to explain arrival patterns. As such, Naudé and Saayman (2005:379) noted that the exchange rate

differentials were not the most significant inhibitor of African tourism growth, but that the poor performance was due to infrastructure, the level of development, communication development/infrastructure and political and social stability constraints as discussed in Chapter 3. Furthermore, the data from the Naudé and Saayman (2005) study was limited to a period of five years (1996-2000) that led to a confined research unit, and resulted in the need for a more updated data approach. Seddighi, Nuttall and Theocharous (2001:182) emphasised that political instability influences the tourism industry due to the sensitive nature of the industry, the increasing competition between destinations and the narrow profit margins. The goal of this Chapter is to investigate which determinants influence inbound tourism to Africa focussing on the number of foreign (non-African) tourism arrivals to the continent. The importance of Chapter 4 is necessitated by the lack of research available on the determinants of inbound African tourism. By narrowing this gap, this research has the potential to develop strategic campaigns aimed at attracting foreign visitors to Africa.

4.2 Overview of tourism to Africa

The following section provides an overview pertaining to inbound tourism to Africa, the determinants that influence inbound tourism to Africa and lastly how these determinants can be utilised to strengthen the African tourism economy.

In this section of the research, inbound tourism refers to tourism activity attracted from other continents to Africa, and does not include intra-African travel. Many African economies are attentive on sustaining or increasing their economic growth rate; but tourism's potential as a driver for economic development and growth has not been fully recognised (World Bank, 2013c:12).

Table 4.1: Tourist arrivals and receipts in Africa by region (2011)

Region	Total Tourist Arrivals	Total Long-haul Arrivals	Receipts (US\$M)
North Africa	26,554,000	24,383,000	\$18,296
Southern Africa	11,048,000	2,599,000	\$10,090
East Africa	7,621,000	2,727,000	\$7,596
West Africa	6,611,000	4,838,000	\$3,412
Central Africa	667,000	475,000	\$674
Total	52,501,000	35,022,000	\$40,068

Source: African Development Bank [AFDB] (2013:7)

As seen in Table 4.1, tourism is a significant source of foreign reserves for the African continent. The United Nations World Tourism Organization (UNWTO) reinforces the African Development Bank statistics when comparing the total tourism receipts of 2011 with the total

tourism revenues of 2012. This shows that Africa's economy expanded by a billion dollars annually due to the tourism industry, which resulted in a 6% growth spurt in 2012, which is accounted from 52 million arrivals (UNWTO, 2013a:12). Moreover, the United Nations Conference on Trade and Development (UNCTAD, 2017:10) states that, on average, Africa receives 56 million arrivals annually, tourism export revenues of \$47 billion, and generated 1 in 14 jobs accounting for 21 million opportunities from 2011-2014.

Developing African countries could procure the most benefits from tourism, as Africa has a unique offering, which few other destinations have (i.e. spectacular scenery, natural and cultural resources and the romanticism with adventure). In fact, it has to be examined if these particular characteristics do influence tourists to travel to Africa. The systematic colonisation of Africa to expand the French, British, Portuguese, Belgium, German, Spanish and Dutch empires, was motivated by establishing trade routes, excavating natural resources, slavery and missionary work (Rogerson, 2007:361). These countries are still known today as Africa's major source markets regarding tourism arrivals (UNWTO, 2013a:13).

Sustaining these markets has been done very successfully over the years, however, many researchers would agree that these traditional source markets are dwindling and ageing rapidly (World Economic Forum [WEF], 2013a:3; 2013b:39). Therefore growth and expansion into new markets are needed to maintain tourism to Africa, as well as to establish Africa as a viable source market to other destinations (World Bank, 2013c:156). Xiao and Smith (2006:497) indicate that the state of research on Africa is best described as "small", when compared to tourism research on North America, Europe, Asia and Australasia. According to the UNWTO (2013a:3), international tourism arrivals indicate that the majority (52%) of international tourists travel to Europe, followed by Asia and the Pacific (23%), the Americas (16%), Africa (6%) and lastly the Middle East (5%). Furthermore, demand for international tourism grew rapidly during 2012 for destinations in Asia and the Pacific (up with 6%), Africa (an increase of 6%) and Europe (plus 5%). Despite the fact that international tourism demand for Africa is slowly gaining momentum, the little interest from the international market remains worrisome (Rogerson & Visser, 2011:253).

Inbound African tourism is dependent on the wealth of source countries such as Britain, Europe, and the United States, which are also considered Africa's greatest trade partners (Tourism Intelligence International [TII], 2011:3; AFDB, 2016b:28). On the other hand, emerging trade markets such as Brazil, China, India, Russia, Taiwan, and Thailand could be opportunities to explore (AFDB, 2016b:28). It may also be argued that much of the expansion into Africa is due to trade between the BRICS (Brazil, Russia, India, China and South Africa)

countries. Alessi and Xu (2015:online) state that trade between China and Africa reached US\$126,9bn for 2010 and \$300bn in 2015 (China Daily, 2015:online). Furthermore, the UNWTO (2013b) states that during 2012, China held a 9.5% market share of global travel, which constitutes a 40% increase from 2011 with a spending of over US\$107bn. This makes China the largest and most affluent travel market. Africa has to tap into the potential of these emerging markets to increase the benefits that tourism contributes. To capitalise on these advantages, research is needed to determine which factors (determinants) explain the variance in inbound tourism to Africa. Keeping this in mind the purpose of this Chapter is to investigate the inbound tourism arrivals to Africa, by analysing the country of origin and identifying the determinants of tourism arrivals to Africa. Since the previous study was conducted a decade ago, it warrants an updated investigation into the determinants that influence arrivals to Africa.

As mentioned in Chapter 3, only a few studies focus primarily on determinants that are applied to Africa. This could be due to the nature and availability of data. Panel data studies focusing on Africa are scant [with the exception of Naudé and Saayman (2005) concentrating on the continent and Seetenah, Durbarry and Ragodoo (2010) focussing on South Africa]. Panel data analysis is very popular due to the inclusion of cross-sectional data (N) over time periods (T), which is also appropriate for this study as an investigation into different countries over different years are done (Asteriou & Hall, 2011:16). Furthermore, the same number of time observations for every variable and individual is considered a balanced panel, where the imposed effect is dispersed among the individuals and the standard set of variables (Asteriou & Hall, 2011:17).

The African continent is a unique study focus due to the challenges faced in most African countries such as lack of infrastructure, lack of available data and in many cases political and social unrest. For example, Saayman and Saayman (2008:93) investigated the effect of geography (i.e. climate) on inbound tourism to South Africa and found that it plays an important role in tourism arrivals. Some African countries are obligated to supply products and services because of its geographic restrictions like being landlocked, and not being able to provide a sun, sea and sand holiday. This also holds further trade restrictions due to a lack of harbours. The majority (34 of 48) of least develop countries (LDC's) are African countries (United Nations Department of Economic and Social Affairs [UNDESA], 2014a:online). LDC's are measured using three distinct conditions namely; gross national income per capita, the human asset index (HAI) and the economic vulnerability index (EVI). Governments need to embark on major developments in terms of air transport infrastructure, appropriate accommodation and access

to tour operators as these types of developments are important for the tourism sector and economy.

Development is not the only issue surrounding tourism potential in Africa; the sustainability of that development is the key. According to the World Bank (2013c:9), successful tourism development is dependent on the four pillars of sustainability, which are economic-, fiscal-, environmental- and social sustainability. Sustainability is aligned with the United Nations Millennium Development Goals (MDGs), and the goal was set to be reached by 2015. Although all the goals were not met; progress was made (United Nations [UN], 2013:3-5). The post-2015 Agenda has already been put into place to meet the goals that were not reached. This is formulated in the African Union's Agenda 2063. Many African countries will benefit most from the eight MDGs which are to: (1) Eradicate extreme poverty and hunger; (2) Achieve universal primary education; (3) Promote gender equality and empowerment of women; (4) Reduce child mortality; (5) Improve maternal health; (6) Combat HIV/AIDS, Malaria and other diseases; (7) Ensure environmental sustainability; and (8) Encourage global partnerships for development (UN, 2013:6). According to the United Nations Department of Public Information (United Nations Department of Public Information [UNDPI], 2008:28), Africa is lagging behind, despite the encouraging rise in economic growth and improvements in the policy environment and macroeconomic fundamentals, the progress towards environmental sustainability remains inadequate.

The need for improvements and development is especially true when considering regional cooperation and integration of economic policy, infrastructure, research and management. Infrastructure is the most worrisome component as it includes many different developments such as power, transport and communication infrastructure, all of which influences the tourism experience (UNDPI, 2008:20). Bloom, Sachs, Collier and Udry (1998:214) state that Africa's geography makes the cultural interaction between Africa and the rest of the world, as well as, within Africa very difficult. This is further complicated by the vast area (30,221,532 km²) that needs to be travelled as well as the goods that need to be transported to destinations in and across Africa (Turvil, 2013:online). Moreover, the constraints that individual African countries have in terms of transport services and infrastructure make it increasingly difficult to accommodate economic activity such as travel and trade (Rodrigue, Comtois & Slack, 2013:8).

Understanding the influence that certain determinants have on increased tourism activity on the continent has many beneficial properties. These benefits associated with increased tourism activity (i.e. increased number of arrivals) in Africa are vast. Still, the most important

benefit of tourism is the catalytic effect across the economy concerning production and employment creation (World Bank, 2013c:10). This already influences many of the MDGs such as a decrease in poverty, empowerment of women, environmental sustainability and the encouragement of global partnerships. The determinants that influence the number of arrivals to countries have been thoroughly studied. Yet, the focus on Africa is scant. Therefore, an investigation into panel data analysis and the determinants are vital.

4.3 Data and variables

This research follows the economic approach to demand, where the quantity demanded depends mainly on income, price and other factors that influence taste and preference. The following equation is a representation of the simplified model, adapted from Zhou, Bonham and Gangnes (2007:3), and also forms the basis of the estimated models in this Chapter:

$$D_{ij} = f(Y_j, P_i, Z_i) \quad (4.1)$$

where D_{ij} = demand for destination i from origin j (as measured by means of tourist arrivals), Y_j = income in origin, P_i = price in the destination, Z_i = vector of variables that influences taste and preference.

This section discusses the data gathering and the selection of variables. The data on arrivals was obtained from the United Nations World Tourism Organization, and the independent variables or determinants were acquired from the World Bank Development Indicators as well as the IMF's International Financial Statistics. Due to the little available data for Africa, the analysis included 25 African countries ($N=25$), listed in Table 4.2, and 10 years of data ($T=10$) from 2001 to 2010. This ensured that the data was complete and therefore estimates were done on a balanced panel. The variables are listed in Table 4.3. The model was estimated by applying the complete panel of African data that was available (i.e. balanced panel of $N=25$, $T=10$), as well as applying the smaller panels that represented specific regional areas (section 3.4). For northern Africa, the panel consisted of four countries and data of a period of 10 years ($N=4$, $T=10$); the data panel and period of time reflected for eastern Africa was $N=7$ and $T=10$, the panel and time period for the region of western Africa reflected $N=5$ and $T=10$, for southern Africa the panel consisted of six countries ($N=6$) and data of 10 years was used ($T=10$); and for central Africa the panel comprised of three countries ($N=3$) and data extended over 10 years was used ($T=10$).

Table 4.2: Countries used in the analysis

Region/ Country	Code	Region/ Country	Code
Northern Africa		Southern Africa	
Algeria	DZA	Lesotho	LSO
Egypt	EGY	Madagascar	MGD
Morocco	MAR	Malawi	MWI
Tunisia	TUN	Mozambique	MOZ
Eastern Africa		Namibia	NAM
Burundi	BDI	South Africa	ZAF
Ethiopia	ETH	Central Africa	
Kenia	KEN	Angola	AGO
Mauritius	MUS	Central African Republic	CAF
Seychelles	SYC	Zambia	ZMB
Tanzania	TZA		
Uganda	UGA		
Western Africa			
Benin	BEN		
Gambia	GMB		
Niger	NER		
Nigeria	NGA		
Sierra Leone	SLE		

Source: Compiled by the researcher

Using the basic demand specification above (Equation 4.1), it is evident that the demand for a destination depends on income at the origin, prices at the destination and other taste and preferences. In this research, demand is measured concerning foreign arrivals. Although demand can also be measured regarding real spending, this option is not available, since tourism receipt data for African countries are even scarcer than arrivals data. Following the basic specification (Equation 4.1), the independent variables are firstly real income at the origin, and secondly prices. The proxy applied for real income of origin countries is the real GDP of advanced economies. This variable therefore only has variation in the time dimension and not in the cross-section dimension. This implies that time fixed effects cannot be used together with the income proxy. Since tourism is often classified as a luxury good, a positive sign is expected as well as a coefficient larger than 1. A summary of the variables listed in Table 4.3 is available in Appendix (Table A1).

Secondly, relative prices are the price proxy that was applied and does not measure the absolute level of prices at the destination. It rather measures the differences in prices between origin and destination. It was calculated as the ratio of advanced economy CPI relative to destination CPI. According to this calculation, an increase in destination CPI causes the

relative CPI to decline and due to the law of demand; it is expected that arrivals will also decline. A positive sign is therefore expected.

Table 4.3: Variables used in the analysis

Variable	Description	Source
ARRIVALS	Total arrivals from non-African countries	UNWTO
RELCPI	Relative CPI (CPI_j/CPI_i), where j =advanced economy CPI, while i =African country CPI	WBDI
AGDP	Advanced country GDP, measured as OECD real GDP	WBDI
TB	Incidence TB (per 100 000 people)	WBDI
SAFETY	Safety and the rule of law (concerning crime prevalence)	WBDI
INTERNET	Internet users (per 1,000 people)	WBDI
URBAN	Urban population (percentage of total)	WBDI
DEATH	Death rate, crude (per 1000 people)	WBDI
MARINE	Terrestrial and marine protected areas (percentage of total territorial area)	WBDI
PROTECT	Terrestrial protected areas (percentage of total surface area)	WBDI
NADUM	North African dichotomous variable which takes the value of 1 if the country is a North African country, 0 otherwise	Coded by author
SABORDER	South African border dichotomous variable which takes the value of 1 if the country shares a border with South Africa, 0 otherwise	Coded by author
LLC	Landlocked country, dichotomous variable which takes the value of 1 if a country is has no coastline, 0 otherwise	Coded by author

Source: Compiled by the researcher

To measure preferences and taste for Africa as a destination, this research relies mainly on previous research implemented on the African continent, and more specifically, that of Naudé and Saayman (2005). Factors to consider, according to these authors, are political stability and personal safety, health risks, the level of development, available infrastructure and tourism marketing. To this end, the following variables has been included in the research: A safety and rule of law index obtained from the World Bank Development Indicators (WBDI) and sourced from the Ibrahim Index, which measures four dimensions of governance (personal safety, rule of law, accountability and corruption, and national security) on a scale from 1 to 100. The interpretation of measurements on the scale when a score is to the lower end of the scale typically indicates that a country has more safety concerns and less rule of law. As to health risks, the incidence of Tuberculosis per 100 000 inhabitants is used and therefore measures tourists' exposure to dangerous diseases. In such instance, a higher incidence is expected to be associated with less tourism and subsequently a negative sign is expected.

Two proxies for the level of development of the African country are also included, namely the urbanisation rate and the death rate, obtained from the WBDI database. Naudé and Saayman (2005) also included both these proxies. A more urbanised economy and an economy with a lower death rate are both indicators of a more developed economy. Therefore, a positive sign is expected for the urbanisation rate and a negative sign for the death rate. Regarding tourism and communication infrastructure, the number of internet users per 1 000 people is included in this research, also sourced from the WBDI. A positive sign was expected with more internet users indicating higher levels of tourism and communication infrastructure (i.e. accessibility of the destination).

In addition to the above, Africa is often visited for its natural beauty, wildlife and unspoilt marine life. To account for these effects, two variables that were not used previously in the African context are included, namely the percentage of the total territory that is a terrestrial protected area (PROTECTION variable) and the percentage of the total territory that is a terrestrial or marine protected area (MARINE), both obtained from the WBDI database. Since the variable has no to little variation over time, it is constant in the time dimension, but varies in the cross-section dimension of the panel. Therefore, both serve as fixed effect dummies and since they are correlated, they cannot be included in the regressions simultaneously.

Similar to the research by Naudé and Saayman (2005), it was expected that geography would influence tourism arrivals. Thus, three dichotomous (dummy) variables were coded to account for this. Firstly, a land-locked dummy was applied, since land-lock does not only indicate lower accessibility, but in the tourism environment it also excludes access to beaches. A negative sign is therefore expected. Secondly, a north African dummy was coded for countries that are located in the northern part of the continent. Geographical proximity to Europe may create an advantage in terms of tourism flows to these countries, and a positive sign is then expected. Lastly, a dummy variable was created that also measures geography, but this time with regard to closeness to South Africa, which is one of the main destinations in Africa. The variable was coded the value 1 when the country bordered South Africa, and 0 if otherwise. It was expected that the relationship would be positive, since being close to a major destination may improve accessibility.

All variables were regularly logged except the dummy variables to ensure standardisation and ease of interpretation (indicated with “L” as prefix to the Name of the variable). The following section describes the method that was applied during the estimations.

4.4 Method

This section embarks on an investigation into panel data analysis as it applies to the current study. As previously stated, panel data set consists out of cross-sectional data (N) and time series data (T). In many tourism cases it refers to a number of countries over a specific period (Wooldridge, 2009:9). Panel data refers to the pooling of observations on a cross-section (in this case African countries) over time (Gujarati, 2006:5; Baltagi, 2008:10). There are also different types of panels such as micro panels which have a large number of cross-sections (N) over a short period (T), whereas macro panels have moderate cross-sections over a long period of time (Baltagi, 2008:4). Each of these different types of panels requires different econometric attention.

The advantages gained from a correct pooling assumption include: (a) An increased sample size with better estimations; (b) The problems faced by omitted variables causing biased estimations is less likely to occur; and (c) The ease of testing two dimensions (N and T) simultaneously is rationalised (Podestà, 2002:6). However, the disadvantages, as identified by Stimson (1985:918), violate the basic assumptions of Ordinary Least Square (OLS) regressions; especially with regard to the error term obtaining a mean of zero, with constant variance over all observations. Also, the error term that does not correspond to different points in time, are not correlated (Moon, Sekwat & Stanley, 2004:4). Ultimately the error term is the measure of accuracy for the regression. In failing to correlate the error term with the different points in time is a major violation, which results in autocorrelation. This brings about a contradiction in the estimator's true representation. Fortunately, serial correlation can be reduced by lagging the endogenous variables (Moon *et al.*, 2004:5). This is also common practice in tourism demand studies, since a lagged dependent variable captures the effects of habit and persistence (Seetaram & Dwyer, 2009:213).

The use of panel data is especially popular due to the fact that it addresses the problem with omitted and unobserved variable bias more efficiently compared to cross-sectional data regressions alone (Kirchgässner, Wolters & Hassler, 2013:155). The use of cross-sectional data limits the causal relationship because of: (a) Unobserved variable bias; (b) Endogeneity bias; and (c) Indeterminacy of the causal mechanism (Berrington, Smith & Sturgis, 2006:4). For this reason the use of panel data or cross-sectional time series data is more appropriate as it provides more reliable estimations and greater leverage on causality due to the time component and not the sequencing of the variables as is the case with cross-sectional data alone. The use of panel data also requires more advanced statistical models to estimate results (Williams, 2015:2).

Baltagi (2008:6) points to the benefits and limitations in using panel data sets. The benefits enable one to better examine complex situations or dynamic behaviour. The benefits encompass, for example the ability to include larger data sets with more variability and less collinearity among the variables, more reliable estimations (when using more informative data), more sophisticated behavioural models with fewer assumptions, the ability to control individual heterogeneity (which results in less bias estimations), and the ability to better identify and estimate effects that are not detectable in cross-sectional time series data alone. Limitations of using panel data sets include problems associated with non-response or measurement error and bias due to sample selection problems.

The total panel used in this Chapter consists of 25 African countries¹(see Table 4.2) data that stretch over a period of 10 years (i.e. $N=25$ and $T=10$), while all the regional panels are smaller in the cross-section dimension. It is therefore not a large panel in the time dimension, which causes some constraints in applying time-series techniques in the analysis. Thus, the panel requires methods that accommodate a relatively large cross section (when the entire panel is analysed) and a rather small time dimension. Besides the regular fixed effects estimation (also referred to as the least square dummy variable (LSDV) method), these types of panels are also modelled through generalised method of moments (GMM) and bias-corrected LSDV. Subsequently, both are reviewed. All analyses were done using Stata 14.1.

4.4.1 The Generalised Method of Moments

Since the fixed-effects are only useful for short-run determinants, caused by the reliance on time series components of the data, other methods for identifying the long-run determinants are vital (Naudé & Saayman, 2005:373). The benefits of identifying the long-run determinants of tourist arrivals are especially important due to Africa's various challenges. Linear dynamic panel-data models include lags of the dependent variable as covariates and contain unobserved panel-level effects, which might be fixed or random. Nevertheless, the unobserved panel-level effects are often correlated with the lagged dependent variable (Stata, 2013:2). One method that addresses the long-run challenges is the generalised method of moments (GMM), which requires pooling the individual groups and allowing the intercepts to differ across the groups (Blackburne & Frank, 2007:197). The GMM estimate the parameters of the model, which is designed for data sets with many cross-section members but few time periods, still requiring no autocorrelation in the individual errors.

¹ Algeria, Angola, Benin, Burundi, Central African Republic, Egypt, Ethiopia, Gambia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Seychelles, Sierra Leone, South Africa, Tanzania, Tunisia, Uganda, Zambia

According to Blackburne and Frank (2007:197), small T panel estimations rely on random- or fixed-effects or a combination of fixed-effects estimators and instrumental variable (IV) estimators such as the generalised method of moments (GMM) estimator. These methods require pooling individual groups and allowing only the intercepts to differ across the groups. As a result of bias problems in dynamic panels, two solutions are proposed: (1) Introduce exogenous variables (not viable with small T samples due to bias); and (2) Use instrumental variable methods such as the GMM estimator (widely used in panels with small T) (Asteriou & Hall, 2011:433). Garín-Muñoz (2006:287) states that unless the time period in a panel is large (close to infinite) random effect estimators are biased and inconsistent. In such an instance, a solution is to use the fixed effects and GMM procedure of Arellano and Bond. The GMM estimator is an estimating method that uses the values of the dependent variables, resulting in consistent and efficient estimates of the parameters.

The generalised method of moments (GMM) refers to the generalisation of the classical method of moments (MM), wherein moment estimators are functions of the averages of random variables (Zsohar, 2010:152). The GMM underlines the set of population moment conditions that derived from assumptions of the econometric model. The GMM finds values for the model parameters of observable variables so that the sample moment conditions are satisfied as closely as possible (Pynnonen, 2007:1). The GMM unrelated or uncorrelated conditions for GMM articulates the moments of the residual as a function of the estimated parameters. Two forms of the GMM are available: (1) Difference GMM; and (2) System GMM. Roodman (2009:86) points out that the GMM estimation starts by changing all regressors, usually by differencing, hence referring to the differenced GMM, where the first-differenced instrument variables are uncorrelated with the fixed effects. The system GMM derives from the differenced GMM by introducing more instruments for efficiency and building a system of two equations – the original and the augmented one (Roodman, 2009:87).

Naveed, Preat and Rabas (2011:5) state that the basic idea of the Arellano-Bond is to take first differences to remove the individual effects and use past information as instruments. The distinction between the difference and the system GMM is based on transforming all regressors, usually by differentiating, and applying the GMM. The system GMM estimator augments the differenced GMM by making an additional assumption that first differences of instrument variables are uncorrelated with the fixed effects. This allows the introduction of more instruments and can dramatically improve efficiency. It builds a system of two equations, the original equation and the transformed one, therefore known as system GMM. Additionally, system and difference GMM is quite complicated, causing invalid estimates if the endogenous variables are not correctly identified (Roodman, 2009:87).

Two approaches or variants exist in determining GMM estimators, the one-step and two-step, with the latter being the most popular (Drukker, 2010:13). The main advantage of the two-step approach is that the number of equations and parameters in the nonlinear GMM step does not grow as the number of perfectly measured regressors grows. However, the one-step GMM does not offer the estimating simplicity compared to the two-step, but is asymptotically more efficient (Erickson & Whited, 2002:777). Bond (2002:153) states that one-step GMM estimators are asymptotically equivalent to optimal two-step GMM estimator. Still the gain in efficiency from using the two-step GMM is likely to be greater especially concerning large samples.

According to Imbens (1997:359), one-step GMM estimators are appealing because of the information-theoretic interpretations and the invariance of the estimator to the linear transformations of the moment functions. One-step GMM estimators have the ability to rank the estimating cells probability in a contingency table with known marginal. However, the two-step GMM estimator uses an initial estimation to calculate the optimal linear combinations of the movement functions. The basic estimating difference between the one-step and two-step is that during the one-step estimator the parameters are calculated based on the initial weighted matrix with no updating of the weighted matrix, except when calculating the appropriate variance-covariance (VCE) matrix. Two-step obtains the parameters by estimating the initial weighted matrix, while computing a new weighted matrix based on the estimations, and then re-estimates the parameters based on the augmented weighted matrix (Stata, 2013:3).

Arellano and Bond (1991:277) state that the GMM estimator optimally exploits all linear moment restrictions that follow the assumption of no serial correlation in the errors, in an equation which contains individual effects, lagged dependent variables and no strictly exogenous variables. One of the main advantages of GMM is that it allows estimation in systems where the number of unknowns is smaller than the number of moment conditions, and to test whether the moment conditions are maintained (Sheppard, 2005:375). According to Mileva (2007:1) certain problems might arise from using panels with small T and moderate N (such as in this Chapter T=10; N=25) such as; (1) causality might run in both directions, where regressors might correlate with the error term, (2) time-invariant country fixed effects might correlate with explanatory variables, and (3) the presence of lagged dependent variable gives rise to autocorrelation, while the Arellano-Bond estimator was designed for small T and larger N panels (Mileva, 2007:3). This estimator is therefore applicable to the larger African panel, but not necessarily to the regional panels, where the cross-section dimension (N) is smaller. For these panels, an alternative method should be considered.

4.4.2 The bias-corrected LSDV

Observed bias in panels characterised by small N; small T; or both (such is the case with this panel) necessitates the importance of comprehending the properties of different estimators on the estimated fixed effects (Buddelmeyer, Jensen, Oguzoglu & Webster, 2008:2). One solution to counter the bias within small panels is to make use of a bias correction technique. In recent years the bias-correction Least Square Dummy Variable (LSDV) have become popular. The techniques based on Kiviet (1995) and Judson and Owen (1999), which outperformed GMM and Instrumental variables (IV) in Monte Carlo calculations was especially popular (Bun & Carree, 2005:200). According to Bruno (2004:2) the bias-corrected LSDV is more accurate than traditional GMM estimators, especially concerning small panels or at least where N is only moderately large. Kiviet (1995:55) indicated that the least square dummy variable estimators are also biased, although the standard deviation is often much smaller compared to the 1st differenced Anderson-Hsiao Instrumental Variables (IV) estimator models and various GMM estimator models. Moreover, the bias-corrected LSDV is not outclassed and is still reasonably easy to calculate, whereas the IV and GMM estimations deliver poor results especially in controlled conditions (Kiviet, 1995:73). Panels with small time dimensions (T) deliver the most appropriate results by means if the bias-corrected LSDV.

It is due to these properties that the smaller panels in this research were estimated through the bias-corrected LSDV. This estimator, together with the Arrelano-Bond GMM, had also been applied to the entire African panel, for comparison purposes.

4.5. Results

The results are discussed for Africa in its totality and are then shown for each region, namely northern Africa, eastern Africa, southern Africa, western Africa and central Africa. Due to the availability of the data and the small regional panel composition, results are finite, and should be interpreted with caution. These limitations might be addressed in future as data becomes more available, yet this is an attempt to address current gaps. For all the panels, the model specification is:

$$LARRIVE_{it} = \alpha + \beta_1 LAGDP_{it} + \beta_2 LRELCPI_{it} + \beta_3 LTB_{it} + \beta_4 LSAFETY_{it} + \beta_5 LINTERNET_{it} + \beta_6 LURBAN_{it} + \beta_7 LDEATH_{it} + \varepsilon_{it} \quad (4.2)$$

Firstly, the models were estimated using the fixed and random effects, and two tests were conducted to determine the appropriate estimator: the Breusch-Pagan LM test for random effects and the Hausman test to determine whether random or fixed effects are more appropriate. The null hypothesis of the Breusch-Pagan LM test is that pooled OLS is

consistent, while the null hypothesis of the Hausman test is that the random effects model is consistent. The results are shown in Table 4.4.

Table 4.4: Pooled OLS, Fixed effect or random effects estimator tests

Panel	Breusch-Pagan LM test	Hausman test
Entire Africa	852.57***	15.11**
Northern Africa	<0.001	
Eastern Africa	<0.001	
Southern Africa	<0.001	
Western Africa	<0.001	
Central Africa	<0.001	

*Null hypothesis rejected; *** $p < 0.01$; ** $p < 0.05$

Source: Compiled by author from STATA output

Table 4.4 depicts that the Breusch-Pagan Lagrange Multiplier (LM) test only rejects the pooled OLS estimator favouring the random effects in one instance, namely for the entire African panel. The pooled OLS estimator is consistent for the remainder of the panels. The Hausman test then indicated that for the entire African panel, random effects could be rejected which favour the fixed effects. Therefore, the results of the pooled OLS estimator together with the LSDV and bias-corrected estimators are shown for all the smaller panels, while the larger African panel contain the fixed effect, LSDV and bias-corrected LSDV as well as the Arellano-Bond estimator results.

4.5.1 Results for the entire Africa

For the entire African panel (i.e. 25 countries and over 10 years), the results of the tests above indicated that fixed effects are the most appropriate estimator. Therefore, the basic regression (Equation 4.2) was firstly estimated using fixed effects, followed by robust fixed effects to account for heteroscedasticity in the error term. The results are shown in columns (2) and (3) of Table 4.5. Aimed at thoroughness, the pooled OLS results are also presented (column 1) although the Breusch-Pagan LM confirms it as not an optimal specification. Since the fixed effects estimator cannot accommodate any other dummy variables, the remainder of the static models were estimated using a least square dummy variable (LSDV) approach, with a dummy variable for each destination country. This estimator is equivalent to fixed effects seeing that it allows for different constants for each cross-section, i.e. α_i and not a constant intercept (α) as in Equation 4.2 (Asteriou & Hall, 2016:444). Using the LSDV, it is also possible to include other dummy variables. The five dummy variables are included separately to test their significance to explain tourism flows to Africa. The results are reported in columns 4 to 8 in Table 4.5.

Table 4.5: Static estimation results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pooled OLS	Fixed effects (fe)	Robust fe	Robust LSDV + NADUM	Robust LSDV + SAB	Robust LSDV + LLC	Robust LSDV + MARINE	robust LSDV + PROTECT
_cons	44.027 (59.185)	-52.34*** (17.52)	-52.34** (19.40)	-51.28** (20.55)	-50.32** (20.60)	-51.28** (20.55)	-55.87** (20.81)	-54.84** (20.66)
LAGDP	-1.066 (2.114)	2.319*** (0.656)	2.319*** (0.682)	2.319*** (0.719)	2.319*** (0.719)	2.319*** (0.719)	2.291*** (0.727)	2.306*** (0.722)
LRELCPI	1.562*** (0.331)	-0.0974 (0.135)	-0.0974 (0.236)	-0.0974 (0.249)	-0.0974 (0.249)	-0.0974 (0.249)	-0.0956 (0.248)	-0.0966 (0.248)
LTB	0.243** (0.098)	0.280 (0.213)	0.280 (0.345)	0.280 (0.363)	0.280 (0.363)	0.280 (0.363)	0.303 (0.359)	0.303 (0.359)
LSAFETY	-2.485 (0.391)	0.417 (0.275)	0.417 (0.411)	0.417 (0.433)	0.417 (0.433)	0.417 (0.433)	0.420 (0.435)	0.418 (0.435)
LINTERNET	0.621*** (0.086)	0.195*** (0.0403)	0.195** (0.092)	0.195* (0.097)	0.195* (0.097)	0.195* (0.097)	0.190* (0.100)	0.190* (0.101)
LURBAN	0.099 (0.189)	-0.645 (0.849)	-0.645 (1.799)	-0.645 (1.896)	-0.645 (1.896)	-0.645 (1.896)	-0.560 (1.941)	-0.556 (1.947)
LDEATH	-2.166*** (0.332)	-0.540 (0.389)	-0.540 (0.698)	-0.540 (0.736)	-0.540 (0.736)	-0.540 (0.736)	-0.555 (0.726)	-0.552 (0.728)
NADUM				2.896*** (0.107)				
SABORDER					-2.882** (1.190)			
LLC						-3.539 (2.752)		
LMARINE							0.552 (0.700)	
LPROTECT								0.580 (0.767)
Number of cross sections	25	25	25	25	25	25	25	25
Number of observations	249	249	249	249	249	249	249	249
R-sq	0.570	0.587	0.587	0.980	0.980	0.980	0.980	0.980

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis

Source: Compiled by author from STATA output

The static regression results in Table 4.5 indicate that arrivals to Africa as a whole are sensitive to income of origin countries (LAGDP.) The sign is positive, as expected, and greater than 1. This indicates that tourism to Africa is a luxury good and that an increase in income in the developed world will lead to a relatively large increase in tourism to Africa. Secondly, tourism

and communication infrastructure (LINTERNET) is also a positive and moderately significant (at a 10% level of significance in some regressions) related to tourist arrivals in Africa. Again, this was expected and indicates that African countries that are more easily accessible, receive more visitors.

As to the dummy variables, it is noteworthy that the geography dummy, landlock countries (LLC), is not significant, but both the North Africa (NADUM) and South African border (SABORDER) are significant. As was expected, the North Africa dummy is positive indicating that countries closer to Europe (one of the main markets for tourists to Africa) attract more tourists. Contrary to previous research by Naudé and Saayman (2005), the South African border dummy is negative. This implies that close proximity to the largest southern Africa tourism destination does not create positive spill-over effects to neighbouring countries.

Quite disappointingly, none of the conservation (or tourism-specific) dummy variable, namely protected marine areas (LMARINE) and protected terrestrial areas (LPROTECT) are significant. This could indicate that overall (due to Africa's size), the ratio of protected marine and terrestrial areas are insufficient. Thus more conservation attempts have to be made to increase either the size of protected areas or to establish more protected areas. While Table 4.5 shows the results of the static regression models, the dynamic model results are presented in Table 4.6. Since the panel has a relatively large cross-section dimension ($N=25$), but a small time dimension ($T=10$), bias in dynamic fixed effects model is caused by the correlation of the lagged dependent variable with the individual effects. This is addressed using two alternative estimators, namely the Arellano-Bond estimator and the bias-corrected LSDV estimator (as discussed in section 4.4.1 and section 4.4.2).

Table 4.6: Dynamic panel data regression results (GMM and bias-corrected LSDV)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1-step GMM	1-step GMM	1-step GMM	1-step GMM	1-step GMM	LSDV AB- estimator	LSVD BB- estimator	LSDV AH- estimator
_cons	-9.081 (28.60)	-19.34 (28.59)	-32.13 (37.37)	-13.91 (31.92)	-14.84 (32.58)			
LARRIVE (lag)	0.576*** (0.114)	0.576*** (0.110)	0.694*** (0.168)	0.455*** (0.147)	0.474*** (0.139)	0.599*** (0.0691)	0.691*** (0.0613)	0.625*** (0.0999)
LAGDP	0.542 (1.023)	0.839 (1.034)	1.385 (1.421)	0.620 (1.180)	0.621 (1.201)	1.806* (0.720)	1.841* (0.763)	1.785* (0.772)
LRELCPI	0.877** (0.405)	0.695** (0.311)	0.752** (0.343)	0.862* (0.472)	1.105*** (0.380)	0.202 (0.184)	0.243 (0.193)	0.225 (0.198)
LTB	0.111 (0.147)	0.0821 (0.115)	-0.0889 (0.196)	0.197 (0.208)	0.0586 (0.165)	0.195 (0.263)	0.203 (0.286)	0.209 (0.284)
LSAFETY	-0.123 (0.371)	0.155 (0.323)	-0.485 (0.535)	0.312 (0.463)	0.577 (0.448)	0.357 (0.268)	0.317 (0.285)	0.377 (0.268)
LINTERNET	0.271** (0.100)	0.296*** (0.0959)	0.177 (0.152)	0.358*** (0.102)	0.391*** (0.0911)	0.131** (0.0411)	0.110* (0.0438)	0.126* (0.0516)
LURBAN	0.0636 (0.167)	-0.316 (0.289)	-0.144 (0.245)	-0.0940 (0.243)	-0.0548 (0.254)	-1.658 (0.933)	-1.687 (1.047)	-1.628 (1.016)
LDEATH	-0.881* (0.504)	0.0764 (0.546)	-0.278 (0.610)	-0.368 (0.698)	-0.292 (0.667)	-0.578 (0.508)	-0.644 (0.553)	-0.590 (0.520)
LLC		-0.483 (0.419)						
NADUM		0.972* (0.549)	0.883** (0.403)	1.461** (0.702)	1.198* (0.667)			
SABORDER			1.163 (0.681)					
LPROTECT				0.352** (0.131)				
LMARINE					0.335** (0.123)			
Arellano-Bond test of 1st order autocorrelation	-2.50**	-2.77***	-2.22**	-2.30**	-2.49**			
Arellano-Bond test of 2nd order autocorrelation	-1.67*	-1.73*	-1.66*	-1.65*	-1.62			
Sargan test of over- identifying restrictions	269.24* **	251.09***	216.81***	243.61***	227.36***			
Hansen's test of over- identifying restrictions	18.02	18.08	19.60	17.93	15.78			
Number of groups	25	25	25	25	25	25	25	25

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis

Source: Compiled by the researcher from STATA output

The system GMM was estimated since the models include some dummy variables (which renders them zero in the difference GMM). Furthermore, the robust one-step estimator was used, similar to previous studies in tourism [i.e. see Naudé and Saayman (2005) and Seetaram (2010)]. The results were obtained using the `xtabond2` procedure in STATA, which allow more control over the instrument matrix. Similar to the static models, the dummy variables were not introduced all at once. Therefore the first five columns ((1)-(5)) report the system GMM results. The last three columns ((6)-(8)) reports the bias-corrected LSDV results. For the bias-corrected LSDV estimator, three underlying models are estimated, namely the Arellano-Bond GMM (AB), the Blundell-Bond GMM (BB) and the Anderson-Hsiao instrument variable approach (AH). The bias is corrected using the bootstrapped method with a variance-covariance of 100 [similar to that used by Seetaram (2010)].

In terms of the dynamic regression results, it is evident that the lagged dependent variable is positive and significant in all specification regardless whether GMM or the bias-corrected LSDV estimator was used. This indicates persistence in tourism flows to Africa, with the possibility of repeat visits and habit-formation. This is contrary to the results found by Naudé and Saayman (2005), which used earlier data for Africa that confirmed a negative lagged dependent variable. This might be an indication that tourism to Africa has become more sustainable. Secondly, as was expected relative prices become significant and positive in the dynamic regression. This shows that tourists are becoming increasingly sensitive to prices in Africa, although the elasticity is still less than one. In the bias-corrected LSDV estimator, income is also positive and significant, similar to the results found in the static regression. The coefficient is larger than unity, which confirms that tourism to Africa is viewed as a luxury product.

While the influence of safety and health concerns for Africa as a whole seems to play a lesser role in influencing tourist arrivals, tourism and communication infrastructure (as measured by internet users) are quite robust determinants of tourism. In almost all specifications LINTERNET is positive and significant. The development proxies, i.e. the urbanisation and death rate, are not significant. However, the results of the static regressions confirm and that the geographical closeness to Europe (as measured by the north African dummy) is an advantage. In the dynamic GMM models, the tourism-specific dummy variables marine and terrestrial protected areas, are positive and significant, indicating that tourism to Africa is indeed positively associated with conservation efforts.

In terms of the diagnostics, it is evident that the null hypothesis of first order autocorrelation cannot be rejected, although this is expected in GMM models (Roodman, 2009). The test for

second order autocorrelation indicates that at a 5% level of significance, the null hypothesis of no autocorrelation cannot be rejected in all instances. Secondly, the Sargan test of over-identifying restrictions indicates that the null hypothesis can be rejected in all instances. However, the Hansen test indicates that the null hypothesis cannot be rejected, and that the instruments are valid. The difference-in-Hansen test results confirm the exogeneity of instruments. According to Baum and Schaffer (2003:3), the Hansen J-statistic are consistent in the presence of intra-cluster correlation, which cause the standard over-identifying restriction test to over-reject the null.

In conclusion, for Africa as a whole, the results show that there is persistence in tourism flows. This indicates a habit-formation and general acceptance of the continent as a tourism destination. Secondly, the standard determinants of tourist arrivals, i.e. income and price, as well as the sustaining of and tourism to Africa depends positively on the income of origin countries and negatively on price changes (i.e. if prices in Africa increase, the continent becomes less competitive). Furthermore, communication and tourism infrastructure are important determinants of tourism and matter more than levels of development. Besides, it is clear that geographical distance from Europe (one of the main origin markets) still plays an important role in tourism flow to Africa. Finally, the results confirm that tourists to Africa want to experience its natural, unspoilt beauty with both the conservation proxies included significantly in the dynamic specification.

4.5.2 Results for northern Africa

As explained above, Africa as a continent is quite diverse and therefore this research not only attempts to assess the determinants of tourism to the continents as a whole, but also to understand how different regions in Africa is affected. The first region under scrutiny is northern Africa, which includes the following four countries in the panel – Egypt, Morocco, Algeria and Tunisia. The positive and significant sign of the northern Africa dummy variable in the entire African regression confirms that this region is an important tourism destination in the African continent. To evaluate the determinants of tourism to this region, a similar process was followed as above. Firstly, a static regression analysis was done and secondly, a dynamic analysis using only the bias-corrected LSDV approach since the panel was too small (N=4, T=10) for GMM.

The static regression results are indicated in Table 4.7. The same variables used in the entire African panel were also assessed for this region. Since the diagnostic tests rejected the random effects estimator, the pooled OLS results are shown (column (1) in Table 4.7) together with the fixed effects (FE) estimator (columns (2) and (3)). Finally, the robust LSDV estimator

is used to control country-specific effects as well as differences between countries due to conservation efforts (i.e. LMARINE and LPROTECT variables).

From the Table 4.7 it is evident that the FE and robust FE estimator give exactly the same results, which indicates that no heteroscedasticity in the initial FE results. The static regression results for North Africa also indicate that the region is sensitive to income changes of origin countries and the relatively large positive coefficient confirm that this is a luxury destination.

Table 4.7: Static regression results

	(1)	(2)	(3)	(4)	(5)
	Pooled OLS	Fixed effects (fe)	Robust fe	Robust LSDV + MARINE	Robust LSDV + PROTECT
_cons	-17.808 (53.769)	-70.55*** (21.87)	-70.55** (19.29)	-65.76** (20.66)	-65.46** (20.56)
LAGDP	-0.456 (1.918)	2.518*** (0.743)	2.518** (0.610)	2.508** (0.658)	2.501** (0.657)
LRELCPI	-0.204 (0.513)	-0.295* (0.171)	-0.295** (0.0717)	-0.297** (0.0802)	-0.298** (0.0821)
LTB	-0.601*** (0.112)	-0.102 (0.438)	-0.102 (0.293)	-0.110 (0.306)	-0.114 (0.303)
LSAFETY	7.260*** (0.733)	-0.397 (0.660)	-0.397 (0.839)	-0.401 (0.895)	-0.402 (0.896)
LINTERNET	0.285*** (0.093)	0.0870** (0.0346)	0.0870** (0.0211)	0.0887** (0.0273)	0.0896* (0.0283)
LURBAN	0.779 (0.857)	7.437*** (1.178)	7.437*** (0.798)	7.415*** (0.905)	7.403*** (0.914)
LDEATH	7.424*** (1.722)	-7.324*** (1.756)	-7.324*** (0.819)	-7.335*** (0.870)	-7.339*** (0.878)
LMARINE				-0.0408 (0.0881)	
LPROTECT					-0.0645 (0.0966)
Number of cross sections	4	4	4	4	4
Number of observations	40	40	40	40	40
R-sq	0.974	0.951	0.951	0.998	0.998

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

Source: Compiled by the researcher from STATA output

Contrary to expectations, North Africa is not a price sensitive destination, with the sign of the relative price variable indicating that an increase in prices in this region does not cause a decline in tourism. This is an indication that the region is still viewed as a value-for-money destination. Similar to the results for Africa as a whole, tourism and communication infrastructure (proxied by LINTERNET) are positive and significant. It is also interesting that the development proxies are all significant and has the correct sign, indicating that when tourists choose between North African destinations, more developed countries are preferred. Finally, the two conservation proxies are not significant, which shows that tourists to North Africa might be less concerned about conservation and natural beauty.

Table 4.8: Dynamic panel data regression results (Bias-corrected LSDV estimator)

	(1)	(2)	(3)
	LSDV AB-estimator	LSVD BB-estimator	LSDV AH-estimator
LARRIVE (lag)	0.270** (0.131)	0.432** (0.162)	0.281 (0.164)
LAGDP	1.798*** (0.604)	1.616* (0.898)	1.779*** (0.835)
LRELCPI	-0.0821 (0.157)	0.0202 (0.229)	-0.0768 (0.223)
LTB	-0.505 (0.361)	-0.436 (0.565)	-0.529 (0.514)
LSAFETY	0.131 (0.622)	0.276 (0.952)	0.134 (0.834)
LINTERNET	0.101** (0.0405)	0.0912 (0.0608)	0.0994*** (0.0555)
LURBAN	2.258 (1.841)	0.108 (2.655)	2.215 (2.453)
LDEATH	-2.122 (2.098)	-0.374 (3.064)	-2.023 (2.851)
Number of cross sections	4	4	4
Number of observations	36	36	36

Significance =* $p < 0.1$, ** $p < 0.05$, * $p < 0.01$. Standard errors in parenthesis.**

Source: Compiled by the researcher from STATA output

The dynamic regression results are presented in Table 4.8. In the dynamic model, a lagged dependent variable is included. It is evident that, similar to the panel for the entire Africa, habit-formation and persistence in tourism to North Africa are prevalent. The dynamic specification also confirms that North Africa is a destination that is income-sensitive and that changes in origin country incomes would have a large effect on tourism to this region. The influence of tourism and communication infrastructure is also confirmed in the dynamic regression. However, the estimates do not confirm the idea that prices in North Africa can increase and still have positive influences on tourism. Instead, it shows no effect of price changes on

tourism. Furthermore, once the effect of repeat visitation (or persistence) is controlled for, the influence of differences in levels of development between North African countries become insignificant for tourism.

4.5.3 Results for eastern Africa

The eastern Africa region is the largest region in the analysis and is comprised of seven countries namely; Burundi, Ethiopia, Kenya, Mauritius, Seychelles, Tanzania, and Uganda. Table 4.9 depicts the results of the static regression. The same variables used in the northern Africa panel were also assessed for this region. Since the diagnostic tests rejected the random effects estimator, the pooled OLS results are shown (column (1) in Table 4.9) together with the fixed effects (FE) estimator (columns (2) and (3)). Finally, the robust LSDV estimator was used in order to control for country-specific effects as well as differences between countries due to conservation efforts (i.e. LMARINE and LPROTECT variables).

It is evident from Table 4.9 that the FE and robust FE estimator give similar results. Although the heteroskedasticity influenced the standard errors to change, the significance of the variables did not change considerably. The static regression results for eastern Africa confirm that the majority of the variables are not significant in terms of tourism arrivals to the region. This proves that tourism arrivals are not concerned with price, the prevalence of tuberculosis, safety, or tourism and communication infrastructure. Yet, two exceptions are urbanisation and the death rate. Firstly, as expressed by the negative and fairly large coefficient, it is indicated that tourists are especially travelling to eastern Africa for the rural atmosphere. Secondly, the death rate variable is significant and negative, which might indicate that if death rates should increase, the number of tourist arrivals will decrease.

Table 4.9: Static regression results

	(1)	(2)	(3)	(4)	(5)	(6)
	Pooled OLS	Fixed effects (fe)	Robust fe	Robust LSDV + LLC	Robust LSDV + MARINE	Robust LSDV + PROTECT
_cons	-14.55 (69.16)	-18.77 (39.30)	-18.77 (47.37)	-17.57 (50.64)	-15.54 (48.25)	-19.18 (49.59)
LAGDP	0.152 (2.424)	1.608 (1.373)	1.608 (1.462)	1.608 (1.538)	1.417 (1.447)	1.418 (1.447)
LRELCPI	-0.542 (0.502)	-0.240 (0.256)	-0.240 (0.266)	-0.240 (0.280)	-0.298 (0.274)	-0.298 (0.274)
LTB	1.868*** (0.188)	-0.658 (0.594)	-0.658 (0.943)	-0.658 (0.992)	-0.427 (1.016)	-0.428 (1.016)
LSAFETY	4.792*** (1.120)	0.911 (1.050)	0.911 (0.823)	0.911 (0.866)	1.107 (0.825)	1.106 (0.825)
LINTERNET	0.039 (0.102)	0.0829 (0.103)	0.0829 (0.215)	0.0829 (0.226)	0.0865 (0.218)	0.0864 (0.218)
LURBAN	0.657 (0.488)	-3.591* (1.993)	-3.591 (2.732)	-3.591 (2.875)	-3.088 (2.868)	-3.090 (2.869)
LDEATH	-3.497*** (0.802)	-1.382* (0.786)	-1.382*** (0.300)	-1.382*** (0.316)	-1.156** (0.451)	-1.156** (0.451)
LLC				-2.633 (2.596)		
LMARINE					1.982 (1.539)	
LPROTECT						1.975 (1.534)
Number of cross sections	7	7	7	7	7	7
Number of observations	70	70	70	70	70	70
R-sq	0.752	0.557	0.557	0.968	0.969	0.969

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

Source: Compiled by the researcher from STATA output

Interestingly, and contrary to the significant urbanisation variable, the protected terrestrial and marine conservation is not significant, indicating that tourist might not be attracted by the natural environment. The dynamic regression results for eastern Africa are indicated in Table 4.10. In the dynamic model the lagged dependent variable is included, and as in the case with the entire and northern Africa, the same is evident for the habit-formation and persistence of tourism to eastern Africa. Unlike northern Africa, eastern Africa is not income sensitive, and this could be due to the large variety of expensive lodges and resorts in the region, which is a sign that very affluent people travel to this region. An attraction, which was not measured,

could be cultural phenomena such as the Maasai people of southern Kenya and northern Tanzania.

Table 4.10: Dynamic panel data regression results (Bias-corrected LSDV estimator)

	(1)	(2)	(3)
	LSDV AB-estimator	LSVD BB-estimator	LSDV AH-estimator
L.LARRIVE	0.504*** (0.141)	0.659*** (0.121)	0.381** (0.168)
LAGDP	0.537 (1.352)	0.287 (1.455)	0.285 (11.67)
LRELCPI	-0.127 (0.340)	-0.0726 (0.371)	-0.155 (2.948)
LTB	-0.536 (0.892)	-0.321 (0.978)	-0.978 (7.936)
LSAFETY	0.662 (1.118)	0.941 (1.205)	0.987 (9.160)
LINTERNET	0.0990 (0.129)	0.118 (0.144)	0.128 (1.096)
LURBAN	-3.033 (2.738)	-2.439 (3.055)	-4.092 (23.62)
LDEATH	-0.489 (1.091)	-0.187 (1.204)	-0.597 (9.028)
Number of cross sections	7	7	7
Number of observations	63	63	63

Significance =* $p < 0.1$, ** $p < 0.05$, * $p < 0.01$. Standard errors in parenthesis.**

Source: Compiled by the researcher from STATA output

Moreover, Table 4.10 indicates that none of the other variables is significant in any of the estimations. This could confirm that arrivals to eastern Africa are unconcerned by safety, access to the internet, urbanisation or death rates.

4.5.4 Results for southern Africa

The static results of southern Africa, the second largest region in the analysis, are composed of six countries, namely Lesotho, Madagascar, Malawi, Mozambique, Namibia, and South Africa (Table 4.11). Again the FE and robust FE estimator gave similar results.

Table 4.11: Static regression results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Pooled OLS	Fixed effects	Robust LSDV	Robust LSDV + SAB	Robust LSDV + LLC	Robust LSDV + MARINE	Robust LSDV + PROTECT
_cons	-107.69 (135.96)	-86.15** (41.64)	-86.15** (29.06)	-83.19** (30.56)	-85.79** (30.62)	-84.39** (30.15)	-88.44** (30.22)
LAGDP	4.051 (4.956)	3.385** (1.614)	3.385** (1.014)	3.385** (1.066)	3.385** (1.066)	3.504** (1.060)	3.383** (1.070)
LRELCPI	1.778 (2.208)	0.399 (0.757)	0.399 (0.676)	0.399 (0.711)	0.399 (0.711)	0.411 (0.664)	0.405 (0.690)
LTB	-0.987** (0.461)	2.254*** (0.747)	2.254* (0.896)	2.254* (0.943)	2.254* (0.943)	2.282* (0.939)	2.280* (0.964)
LSAFETY	1.337 (2.255)	2.237*** (0.727)	2.237*** (0.454)	2.237*** (0.477)	2.237*** (0.477)	2.259*** (0.455)	2.261*** (0.444)
LINTERNET	0.525 (0.395)	0.441*** (0.147)	0.441** (0.166)	0.441* (0.175)	0.441* (0.175)	0.450* (0.178)	0.449* (0.185)
LURBAN	2.108*** (0.609)	-2.720* (1.569)	-2.720* (1.320)	-2.720 (1.388)	-2.720 (1.388)	-2.804 (1.424)	-2.790 (1.481)
LDEATH	-0.490 (0.538)	-4.553*** (1.628)	-4.553* (1.965)	-4.553* (2.067)	-4.553* (2.067)	-4.635* (2.006)	-4.630* (2.095)
SABORDER				-1.840** (0.529)			
LLC					-2.017** (0.509)		
LMARINE						-1.686*** (0.364)	
LPROTECT							-1.147 (1.217)
Number of cross sections	6	6	6	6	6	6	6
Number of observations	60	60	60	60	60	60	60
R-sq	0.588	0.727	0.727	0.972	0.972	0.972	0.972

Significance =* p<0.1, ** p<0.05, *** p<0.01. Standard errors in parenthesis.

Source: Compiled by the researcher from STATA output

As indicated in Table 4.11, the southern Africa region is considered a luxury destination, similar to northern Africa as a result of the significant positive sign of the coefficient that makes it sensitive to income changes of origin countries. The prevalence of tuberculosis will not deter tourism arrivals as it increases within the region. This is surprising as southern Africa has one of the highest densities of TB in Africa. Safety and rule of law do not deter arrivals, which is

strange since countries with more corruption and less personal safety, is expected to see a decrease in arrivals. The tourism and communication (LINTERNET) variable is positive and significant, which signifies that arrivals will increase when more connectivity is available. Thus, countries within the region that are well connected will attract more arrivals. The negative and significant urbanisation variable indicates that less urbanised countries within the region will attract more arrivals, although connectivity is still considered important. The significant and negative coefficient for death rates in the region indicates an increase in arrivals since it is a good indicator of overall health within the region. Countries with lower death rates are considered “safer”, since the prevalence of good health will attract more arrivals.

The geographic dummies offer an interesting insight into this region. The significant and negative SABORDER proxy reveals that arrivals will not necessarily increase to the countries directly adjacent or within South Africa. This is probably because South Africa is the largest tourism destination in the analysis. The geographic proxy (LLC) with a negative and significant coefficient indicated that tourist arrivals will not decrease to southern Africa. The protected marine areas (LMARINE) coefficient is negative and significant, which implies that a lower ratio of protected marine areas will result in fewer arrivals.

Table 4.12: Dynamic panel data regression results (Bias-corrected LSDV estimator)

	(1)	(2)	(3)
	LSDV AB-estimator	LSVD BB-estimator	LSDV AH-estimator
L.LARRIVE	0.280** (0.141)	0.432*** (0.140)	0.255* (0.140)
LAGDP	3.613 (2.228)	3.122 (2.805)	3.701 (2.310)
LRELCPI	0.857 (1.027)	0.872 (1.275)	0.891 (1.098)
LTB	2.477** (1.057)	2.326* (1.345)	2.532** (1.151)
LSAFETY	1.770** (0.774)	1.535 (1.004)	1.819** (0.856)
LINTERNET	0.418** (0.189)	0.325 (0.242)	0.423* (0.223)
LURBAN	-3.233 (2.563)	-2.796 (3.239)	-3.224 (2.722)
LDEATH	-4.990* (2.579)	-4.926 (3.342)	-5.201* (2.772)
Number of cross sections	6	6	6
Number of observations	54	54	54

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

Source: Compiled by the researcher from STATA output

The dynamic regression results for southern Africa are indicated in Table 4.12. In the dynamic model the lagged dependent variable is included. As in the case with northern and eastern Africa, the habit-formation and persistence of tourism to southern Africa is evident too. Like eastern Africa, southern Africa is not income or price sensitive. As income (LAGDP) and price (LRELCPI) are not significant, the effect of income changes in origin countries, and relative price on tourism arrivals to southern Africa cannot be confirmed. The dynamic regression confirms that the prevalence of tuberculosis (LTB) does not have a negative influence on tourism arrivals. As expressed in the static regression results, safety and rule of law (LSAFETY) is confirmed to not have a negative influence on arrivals. The effect of tourism and communication infrastructure (LINTERNET) is also confirmed in the dynamic regression, and will lead to an increase of arrivals. It is confirmed that lower death rates (LDEATH) will lead to an increase in arrivals to southern Africa.

4.5.5 Results for western Africa

The static results of western Africa are composed of five countries, namely Benin, Gambia, Niger, Nigeria and Sierra Leone (see Table 4.13). Table 4.13 make clear that income (LAGDP) from origin countries are positive and significant, which specifies that increased income will lead to increased arrivals. The coefficient of relative price (LRELCPI) is negative and significant, and implies an increase in arrivals due to more affordability and lower prices. The variable for the prevalence of tuberculosis (LTB) shows a significant negative coefficient, and suggests that arrivals will deter if the number of tuberculosis cases increases. The protected area dummy (LPROTECT) indicates a negative significant coefficient, which signifies that arrivals will decrease due to the lack or low ratio of protected terrestrial areas. None of the other variables was significant.

Table 4.13: Static regression results

	(1)	(2)	(3)	(4)	(5)	(6)
	Pooled OLS	Fixed effects	Robust LSDV	Robust LSDV + LLC	Robust LSDV + MARINE	Robust LSDV + PROTECT
_cons	33.24 (96.61)	-65.02* (35.55)	-65.02* (27.02)	-66.93* (28.28)	-79.60** (26.68)	-64.71* (28.60)
LAGDP	-1.032 (3.445)	2.513* (1.265)	2.513** (0.868)	2.513* (0.913)	2.180* (0.945)	2.513* (0.913)
LRELCPI	1.556 (1.399)	-1.014* (0.507)	-1.014 (0.575)	-1.014 (0.605)	-0.906 (0.642)	-1.014 (0.605)
LTB	-0.745** (0.328)	-1.043** (0.507)	-1.043** (0.325)	-1.043** (0.341)	-1.029* (0.381)	-1.043** (0.341)
LSAFETY	-0.170 (1.528)	0.346 (0.390)	0.346 (0.365)	0.346 (0.383)	0.464 (0.393)	0.346 (0.383)
LINTERNET	1.009*** (0.225)	-0.0575 (0.104)	-0.0575 (0.0855)	-0.0575 (0.0898)	-0.0384 (0.108)	-0.0575 (0.0898)
LURBAN	-0.070 (0.791)	2.229 (2.630)	2.229 (1.157)	2.229 (1.217)	1.922* (0.715)	2.229 (1.217)
LDEATH	3.290** (1.273)	1.073 (1.052)	1.073* (0.480)	1.073 (0.505)	0.854 (0.473)	1.073 (0.505)
LLC				1.934 (1.095)		
LMARINE					103.7 (51.48)	
LPROTECT						-0.703* (0.276)
Number of cross sections	5	5	5	5	5	5
Number of observations	50	50	50	50	50	50
R-sq	0.706	0.774	0.774	0.990	0.991	0.990

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

Source: Compiled by the researcher from STATA output

The dynamic regression results for western Africa are illustrated in Table 4.14. The results indicate that the dependent variable (LARRIVE) is positive and significant, which indicates habit formation and continuous travel to western Africa. The income proxy (LAGDP) is also confirmed to influence arrivals to western Africa, and infers that higher income in origin countries will lead to increased arrivals. The remaining variables from the static results were not confirmed, which point out that income, for the most part, influence arrivals to the region alone.

Table 4.14: Dynamic panel data regression results (Bias-corrected LSDV estimator)

	(1)	(2)	(3)
	LARRIVE	LARRIVE	LARRIVE
L.LARRIVE	0.0890 (0.137)	0.298** (0.138)	0.0742 (0.159)
LAGDP	2.630** (1.211)	2.297 (2.039)	2.655 (1.734)
LRELCPI	-0.454 (0.680)	0.00791 (1.107)	-0.480 (1.011)
LTB	-0.973 (0.637)	-0.728 (1.045)	-1.002 (0.906)
LSAFETY	0.623 (0.513)	0.780 (0.816)	0.630 (0.755)
LINTERNET	-0.0445 (0.138)	-0.0225 (0.237)	-0.0441 (0.195)
LURBAN	3.777 (3.465)	4.708 (5.698)	3.979 (4.830)
LDEATH	1.070 (1.264)	1.104 (2.092)	1.166 (1.806)
Number of cross sections	5	5	5
Number of observations	45	45	45

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

Source: Compiled by the researcher from STATA output

4.5.6 Results for central Africa

The static results of central Africa (the smallest region in this analysis) comprises three countries, namely Angola, Central African Republic, and Zambia (see Table 4.15).

Table 4.15: Static regression results

	(1)	(2)	(3)	(4)	(5)
	Pooled OLS	Fixed effects (fe)	Robust fe	Robust LSDV + MARINE	Robust LSDV + PROTECT
_cons	-85.24 (105.19)	118.8 (90.54)	118.8 (70.81)	209.0 (80.97)	211.8 (81.22)
LAGDP	2.625 (3.756)	1.679 (2.735)	1.679 (2.412)	1.677 (2.531)	1.677 (2.531)
LRELCPI	0.601* (0.324)	<-0.001 (0.385)	<-0.001 (0.106)	<-0.001 (0.111)	<-0.001 (0.111)
LTB	1.819** (0.873)	17.37*** (3.526)	17.37** (3.184)	17.35** (3.340)	17.35** (3.340)
LSAFETY	0.055 (1.180)	0.229 (0.857)	0.229 (0.463)	0.229 (0.486)	0.229 (0.486)
LINTERNET	0.492** (0.212)	0.324* (0.176)	0.324 (0.116)	0.324 (0.122)	0.324 (0.122)
LURBAN	2.667*** (0.656)	-51.45*** (12.03)	-51.45** (6.610)	-51.41** (6.939)	-51.41** (6.939)
LDEATH	0.523 (1.501)	-21.88*** (5.017)	-21.88** (4.791)	-21.86** (5.027)	-21.86** (5.027)
LMARINE				-30.65* (4.794)	
LPROTECT					-31.45** (4.919)
Number of cross sections	3	3	3	3	3
Number of observations	30	30	30	30	30
R-sq	0.950	0.845	0.845	0.976	0.976

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

Source: Compiled by the researcher from STATA output

The static regression results for central Africa indicate that the prevalence of tuberculosis (LTB) has a positive and significant coefficient, and implies that arrivals will increase, and are unconcerned with tuberculosis. The tourism and communication proxies (LINTERNET) are positive and significant, and show that arrivals will increase to countries that are more technologically advanced and offer access to the Internet. Urbanisation (LURBAN) is negative and significant, which suggests that countries with higher levels of urban development in the

region will deter arrivals. The death rate (LDEATH) is negative and significant, and means that countries with less mortality will attract more arrivals. However, arrivals are deterred by high death rate levels. The tourism and conservation proxies (LMARINE and LPROTECT) are both negative and significant, indicating that a lack of protected areas will result in a decrease in arrivals.

Table 4.16: Dynamic panel data regression results (Bias-corrected LSDV estimator)

	(1)	(2)	(3)
	LARRIVE	LARRIVE	LARRIVE
L.LARRIVE	-0.0807 (0.202)	-0.0127 (0.218)	-0.145 (0.210)
LAGDP	3.544 (2.775)	3.697 (4.007)	3.493 (4.823)
LRELCPI	0.230 (0.660)	0.241 (0.942)	0.232 (1.020)
LTB	21.87*** (5.556)	21.31*** (7.078)	22.98** (9.003)
LSAFETY	0.361 (0.854)	0.453 (1.161)	0.408 (1.310)
LINTERNET	0.308 (0.207)	0.307 (0.282)	0.327 (0.336)
LURBAN	-62.54*** (17.13)	-61.96*** (22.44)	-65.64*** (25.46)
LDEATH	-27.26*** (7.239)	-26.58*** (9.277)	-28.65** (13.25)
	3	3	3
N	27	27	27

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

Source: Compiled by the researcher from STATA output

The dynamic regression results confirm that the prevalence of tuberculosis does not deter arrivals. Urbanisation is confirmed to have a decreased effect on arrivals to Central Africa, and infers that rural countries can attract more arrivals in this region. The death rate is confirmed to decrease arrivals, which points that safer countries within the region will benefit from increased arrivals.

4.6. Discussion and Conclusion

The goal of this Chapter was to investigate inbound tourism, and to identify the factors that influence tourism arrivals for Africa as a whole, as well as the five regions within the continent. Besides the standard pooled OLS and fixed effect estimators, dynamic methods such as generalised method of moments (GMM) and bias-corrected least square dummy variable (LSDV), were employed to obtain the results. As evident from the results, the following determinants were confirmed to have an influence on the entire Africa arrivals: Relative prices

(LAGDP); Tourism and communication infrastructure (LINTERNET); The North African dummy (NADUM); and The marine and terrestrial protected areas (LMARINE and LPROTECT). The results confirm the findings by Seetanah *et al.* (2010:725) with regard to relative prices, and infrastructure which was measured as a number of hotel rooms was also considered significant. Naudé and Saayman (2005:387) in their study, confirmed the importance of communication infrastructure to attract arrivals, but stated that African arrivals are not price sensitive. This statement is contradicted in this study. Geographic variables are also confirmed by Naudé and Saayman (2005:387). The authors identified the importance of South Africa and the bordering countries, whereas this study confirms the importance of North African destinations. Moreover, the importance of Africa's natural heritage is supported by the marine and terrestrial areas to promote wanderlust. This implies that arrivals to Africa in its whole are price sensitive and that an increase in prices could deter arrivals. Moreover, development in internet connectivity will have a beneficial effect on arrivals to the continent, urging the rapid expansion of Internet use. The geographic dummy for North Africa also indicates increases in arrivals due to the proximity to Europe, which is very beneficial for northern African countries. Furthermore, the importance of tourism and conservation efforts are encapsulated within the marine and terrestrial protected area variables, which confirms that arrivals will increase to countries who offer conservation areas that attract many tourists to the continent.

Confirmed determinants for northern Africa include: Income (LAGDP); and Tourism and communication infrastructure (LINTERNET). This implies that countries within the region need to be aware of origin country income, and to adapt products and services accordingly. The influence of tourism and communication infrastructure is vital for sustainable tourism, as constant access and connectivity is important in a globalised market. The communication infrastructure is also confirmed by Naudé and Saayman (2005:387). The static results for eastern Africa indicated that urbanisation (LURBAN) and death rates (LDEATH) do not negatively influence tourist arrivals to eastern Africa. Still, this could not be confirmed within the dynamic model. Naudé and Saayman (2005:387) support the importance of urbanisation for development. Additionally, results from this study verified that death rate does not deter tourism arrivals.

The following confirmed determinants influence southern African arrivals: The prevalence of tuberculosis (LTB); Safety and rule of law (LSAFETY); Tourism and communication infrastructure (LINTERNET); and Death rates (LDEATH). This implies that tuberculosis does not have a negative influence on arrivals to this region. Yet, lower cases of reported tuberculosis will be beneficial to tourism influx. Safety and rule of law do not deter arrivals to

the region. However, countries with less corruption and more personal safety will also benefit greatly in the tourism sector. The influence of tourism and communication infrastructure with constant access and connectivity is important in a globalised market; hence, countries offering a larger platform for communication infrastructure development will attract larger numbers of arrivals. Lower death rates are confirmed to attract more arrivals. Therefore, countries that invest in healthier societies will benefit from increased arrivals. Naudé and Saayman (2005:387) found that health (malaria) issues are more relevant in the cross-sectional results, whereas for southern Africa tuberculosis is confirmed. However, tourism arrivals are not deterred.

The results for western Africa confirms that changes in income (LAGDP) of origin countries will influence arrivals. Therefore, it is vital that the countries in western Africa take note of the major origin countries' income levels, and to what degree spending money will influence travel behaviour. The results for central Africa confirm that the prevalence of tuberculosis (LTB), urbanisation (LURBAN) and death rates (LDEATH) have an influence on arrivals. The influence of tuberculosis on arrivals are minimal and arrivals will continue despite the prevalence of TB. It is evident that arrivals might be deterred by urbanisation, although urbanisation might be a proxy explaining some other phenomena. Yet, urbanisation in central Africa should be developed with the environment in mind. This might be due to tourists not being interested in cityscape, and rather visit central Africa for the more rural locations and natural heritage. A decline in death rates will have a profound influence on the region and the number of arrivals.

The lagged dependent variable (LARRIVE) was confirmed to be significant in all cases, excluding central Africa. This implies that habit formation to the continent as a whole and sustained tourism arrivals is evident. In the case of central Africa, the dynamic model could not confirm that arrivals will increase. The core differences between the regions reveal that each region should address specific shortcomings that could increase tourism arrivals. It is evident that northern and southern Africa need to improve communication infrastructure, to generate higher volume of arrivals. In addition, southern Africa and central Africa need to establish more stable mortality and a decline in statistics regarding death rates. Furthermore, central Africa should not overly urbanise, since it will discourage tourism. Results for eastern Africa are inconclusive, which might indicate that more useful data is needed in the region. Western Africa destinations are income sensitive, therefore exploring source destinations' economic stability to offer value-for-money is vital.



CHAPTER 5: INTRA-AFRICAN TRAVEL APPLYING THE TRADE THEORETICAL APPROACH

“Patience is the key which solves all problems” - Sudanese proverb

5.1 Introduction

The previous chapter (Chapter 4) introduced inbound travel to Africa from other non-African countries. In this chapter the focus is set on travel within Africa. African destinations are examined from an African perspective to summarise a perception regarding the reason for Africans travelling within Africa, as well as identify the other African travellers preferring African countries as tourist destinations. Intra-African travel also refers to cross country travel within the same regional economic community (REC,) for example Southern African Development Community (SADC), as well as travelling between different RECs across the continent. The overall goal of the study is to determine Africa's potential as a globally competitive tourism role-player. In this Chapter, the investigation into intra-African tourism expands on a discussion of the trade theoretical approach. The overall goal of Chapter 5 is to explore the determinants that influence tourism arrivals from Africa within Africa by applying a trade theoretical approach.

5.2 Africa's history

Africa, like many other continents, has a deep-rooted history. Therefore this investigation will be divided into three concise investigated periods, namely the slave trade, colonialism and the time of independence. Historically, Africans have migrated across the continent since the birth of humankind, with records indicating that early man had ventured out of Africa nearly 60 000 years ago. The migratory patterns indicate that various African tribes settled across Africa (National Geographic, 2016:online).

5.2.1 Slave trade and the conquest of Africa (1441-1875)

Trade between Europe and Africa is well established (since before Christianity), especially concerning resources such as gold. However, Europe's influence in Africa steadily increased since the 15th century when Portuguese colonies established along the North-western coast of Africa (Portuguese Cape Verde, 1462; Portuguese São Tomé and Príncipe, 1470; Portuguese Guinea, 1474). Exploring southwards along the Gold Coast (modern day Ghana) of Africa towards Portuguese Mozambique, 1498 and Portuguese Angola, 1575 (Worger, Clark & Alpers, 2010a:14). The Dutch soon followed by establishing a trading post at the Cape

of Good Hope (modern day South Africa) in 1652 with the British and French landing on the coast in the 18th century. The Portuguese expansion into Africa was aimed at the discovery of gold. However, the trade in people (slaves) was just as lucrative, especially as demand from the Americas increased with the labour-intensive cotton, sugar and tobacco industries (Khapoya, 2016:81).

The expansion into Africa and profiting from slave trade had to be justified, and with official support from the Vatican and the Pope the linkages between religion, trade and politics were forged (Fage & Tordoff, 2013:30). Christianity was also used as a means of eradicating Islam, by offering competition for the Muslim traders. Converting Islamic Africans into Christians had its onset since 1488 (Worger *et al.*, 2010a:17). The wealth of Africa also intrigued the Portuguese, luring the expansions southward in search of riches such as ivory and fine woven mats. Expansion was limited to the coastal areas as followers of Islam ruled the inland. The lucrative slave trade had gained much attention, but only the Kingdoms of Spain and Portugal had papal rights to trade. The British had tried to convince the Vatican of granting trade rights in 1564 but was refused, which resulted in the British buccaneering of slaves (Curtin, Feierman. Thompson & Vansina, 1995:52). In 1672 and up to 1729 the British established a slave trade monopoly due to growing sugar plantation needs in the Caribbean (a British colony), and because of the Dutch and French had greatly expanded into western Africa, pushing out the Portuguese.

The abolition of the slave trade had become a major issue during the 19th century (1807-1899) as Britain, and the United States, had enacted legislation that restricted anyone to trade slaves from Africa, no matter the nationality (Worger *et al.*, 2010a:95). This was fuelled extensively by compassion that many had towards slaves and the changes in the ideology of the period. Yet, the demand for African goods such as palm, groundnut and peanut oil, indigo for dyes and ivory resulted into the inland exploration of Africa and subsequently, the conquest of Africa from 1809 to 1905. By 1870 the discovery of diamonds in South Africa brought about wealth expectations to the Europeans that finally pushed into the African interior (Fage & Tordoff, 2013:382). The Brussels Conference (1890) finally abolished slave trade completely.

5.2.2 Colonialism in Africa (1875 – 1961)

Africa and Europe had a long trade relationship, but it was not until the "European Scramble for Africa" and the Berlin Conference (also referred to as the Congo Conference/West Africa Conference) of 1884 to 1885, that fuelled the political rivalry in Europe for territorial ambition and commercial greed for Africa's resources (British Broadcasting Corporation [BBC], 2016:online). According to Falola (2002:156), it was during Africa's colonial period that major

changes arose on the horizon. These changes included: (1) The establishing of new borders based on commercial resources; (2) The replacing of self-sufficient production with export generating production; (3) The introduction of new values and standards by means of missionary education; and (4) European governance dictating foreign rule. The colonial powers of the 19th century held colonial possession of almost one-fifth of global territory in Africa. In all, 14 signatory powers attended the Berlin Conference (Britain, France, Portugal, Spain, Germany, Austria-Hungary, Belgium, Denmark, Italy, the Netherlands, Sweden-Norway, and the Ottoman Empire), although only seven profited from the treaty, especially Britain and France (Worger, Clark & Alpers, 2010b:5). Furthermore, each colonial power had a different approach to ruling, from highly centralised administration (direct rule) to encouraged administration (indirect rule) over Africa (Parker & Rathbone, 2007:91).

The Berlin Conference (1884-1885) regulated the European colonisation and trade in Africa, and 90% of Africa was under European rule by the end of 1902. Moreover, the Conference established Acts which regulated colonisation by means of "the principle of effective occupation" and enforced general Acts to benefit all signatory powers for the united prohibition of the slave trade. The benefits included the establishment of the Congo Free State (open to all European investments), free trade between the Congo Basin and Lake Niassa, the Niger and Congo Rivers were free for ship traffic (see Figure 5.1). Only two independent territories in Africa remained; (1) the Empire of Ethiopia (1896), also known as Abyssinia, which was later (1936) invaded by Mussolini, and (2) Liberia (1816), which due to the end of slavery, resulted in a growing number of free slaves in the United States that resettled in Africa (US Department of State, 2016:online). European colonies had benefited greatly from the resources governed in Africa, and colonisation was further justified through the civilisation missions and elevation of Africans, which was neither a quick process nor a cheap one. Demand for labour and taxes on Africans were high, forcing many to leave ancestral land to work for income, on plantations, farms and mines, while the educated few worked as translators, clerks and tax collectors (Worger *et al.*, 2010b:2).

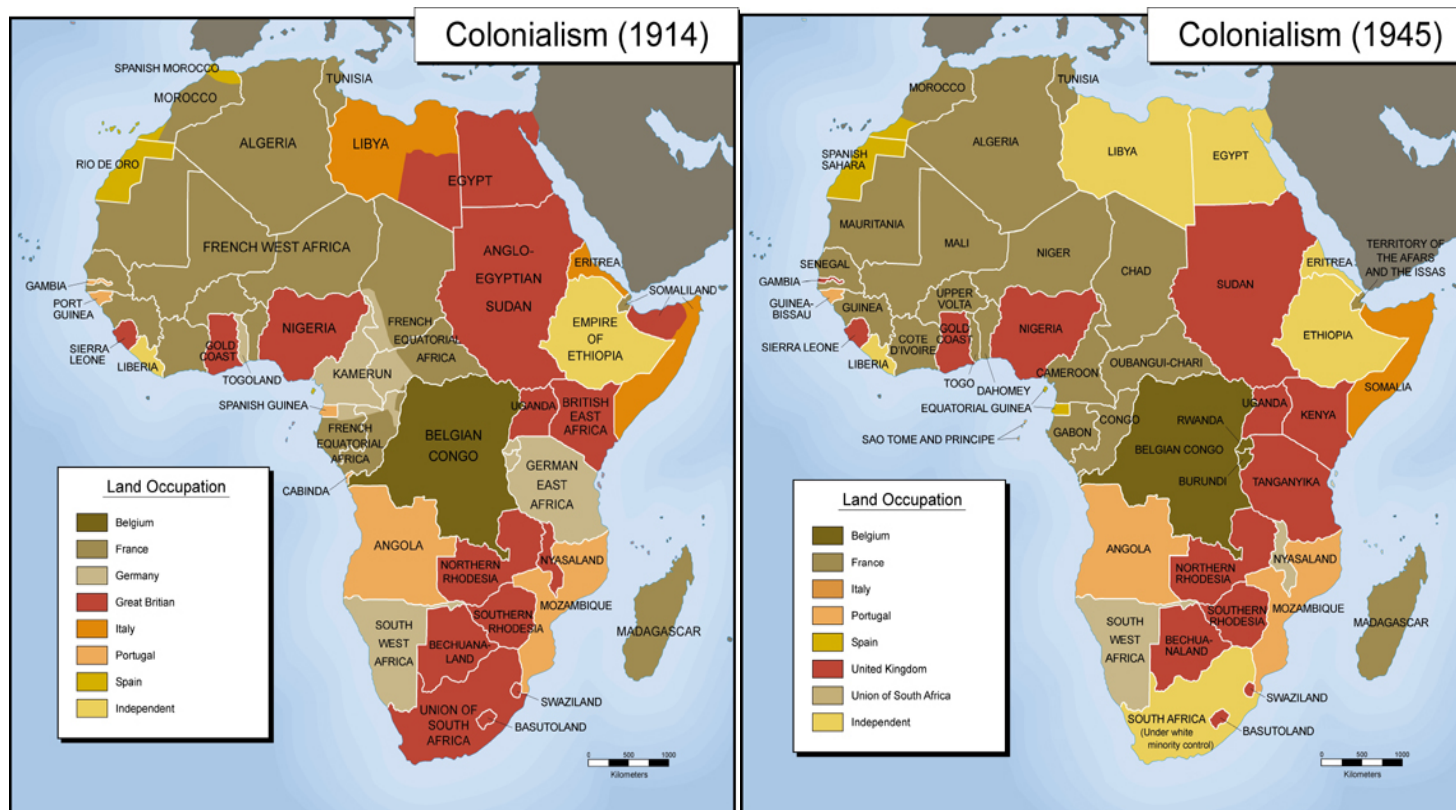


Figure 5.1: Colonisation of Africa

Source: Exploring Africa (2015b: online)

Colonies had to pay taxes so that the colonising countries (Europe) could profit from the colonisation, to support the imperial administration and to subsidise the economy because of World War I. According to Curtin *et al.* (1995:557) taxes were not the only problem faced in Africa, in the way that police brutality and harassment was used to control labour; so was censorship used to ensure that criticism of colonial administration was limited. The role of Africa in World War II (1941-1945) had an immense impact on the war efforts of colonial powers, as taxes were raised to fuel the war economies, agricultural campaigns were heightened to feed the militia and the enlistment of Africans in colonial armies resulted in the deaths of many Africans. However, this has also led to decolonisation and independence in the 1950's and 1960's (Esterhuysen, 2013:50).

5.2.3 Africa's independence (1961 to present)

Independence from Europe and the West meant that African leaders had to assess the obstacles faced in creating independent African nations, and how to utilise the continent's wealth and potential after centuries of exploitation (Fage & Tordoff, 2013:460). Moreover, only a few countries inherited national administrative, communication and transportation networks and structures to support the authoritarian control that Europe once possessed, but now had to use the artificial constructs in a democratic manner (Falola, 2002:187).

Firstly, colonial boundaries were in most cases retained with only a few changes in the names of countries and their capitals, and the formation of the Organisation of African Unity (1963) renamed (2002) to the African Union with headquarters in Addis Ababa, Ethiopia, which at the time consisted out of 30 of the 32 independent states (UNECA, 2015b:online). Secondly, independence meant enhanced living standards, which provided Africans with the means of reshaping economies to benefit from national resources and to minimise dependence on western countries. This has led to growth in entrepreneurship, the economy, education and politics (Curtin *et al.*, 1995:113). Thirdly, the optimism of independence soon subsided as independence was not easily sustained. Many problems occurred such as quicker increases in the population than in economic growth, political unrest as a result of unfulfilled promises and the rampant of military coups throughout most of the continent, as ineffective management has led to various economic and social issues (Esterhuysen, 2013:375).

Lastly, economic underdevelopment due to undiversified economies (colonial economies were export centred) amplified the problems (Falola, 2002:117). Many African countries relied on the export of raw materials; but exports were limited to only a few, or sometimes only one, as was the case with Ghana and the dependency on cacao. Moreover, challenges such as; (1) strong colonial ties, (2) monopolised foreign owned trade companies, (3) road and rail

networks designed to export goods to Europe, (4) limited cross-border trade, (5) minimal industrial development and (6) limited formally educated politicians and economist only escalated the problems (Curtin *et al.*, 1995:114; Falola, 2002:118; Worger *et al.*, 2010b:107). The importance of trade to African economies is especially true when considering the power that trade has (see Chapter 3). Trade within Africa (intra-regional trade) is limited to 10%, whereas trade within the European Union is around 60%. This limitation in intra-regional trade can be ascribed to high transaction costs, complicated immigration procedures, the limited capacity of border officials, costly import and export policy procedures and a lack of investment in trade association, as well as high transportation costs and logistics, which all have an impact on regional trade on a large scale (World Bank, 2013b:online). It is thus important to consider if trade offers the means to develop tourism in Africa or is it tourism that drives trade. The following section investigates the interdependence of tourism and trade.

5.3 Harnessing trade for tourism development and vice versa

In this section, the interdependency of tourism and trade is discussed in relation to the bilateral nature of the industries. The discussion is rooted in the theoretical links introduced by Santana-Gallego, Ledesma-Rodríguez and Pérez-Rodríguez (2011:93). The direct effects of tourism on trade are either based on a shifting consumption or a biased consumption. Firstly, both complementary and substitutable relationships are created, since consumption of products and services will switch between origin and destination country. This influences the demand for imports and exports because increased tourism leads to an escalation in exportable goods and a reduction of importable goods. A complementary or substitutable relationship, depending on the importability/exportability of the product is created (Santana-Gallego *et al.*, 2011:94). Secondly, a switch in consumption patterns in destinations is accomplished, which could result in both export and import increases, making tourism and trade complementary (Santana-Gallego *et al.*, 2011:97). An in-depth investigation into the bilateral relationship between tourism and trade follows.

5.3.1 Tourism promoting trade

Tourism is globally seen as a vital source of investment, foreign exchange earnings, employment as well as business opportunity. The multiple links that tourism shares with other economic sectors position it as a catalyst for development, especially in developing countries. Tourism initiates socio-economic development as an instrument for poverty reduction (United Nations World Tourism Organization [UNWTO], 2016:2). Tourism's value, for least developed countries (LDCs) was estimated at \$21 billion in exports of international tourism during 2015. The majority of LDCs are African countries. This causes complications as "tourism is trade". Particularly, trade in services and some goods, making traditional trade theory somewhat

complex when applied to tourism scenarios (UNWTO, 2015:3). The benefits associated with “tourism trade” are numerous, from the spill-over effect in other sectors to building resilience, developing communities and contributing to partnerships. However, tourism’s potential is not fully recognised and supported in trade, investment and business development policies (UNWTO, 2015:5). These benefits are well documented, and many can be associated with international tourism. Still, it is essential to indicate how local, regional or intra-African tourism contribute to trade. Also, it should be considered if intra-African travel could be the answer to develop more robust trade agreements with neighbouring or regional countries? Saayman and Saayman (2012:1325) reveal that South Africa is a retail destination for many other African countries and that Africans travel to South Africa for shopping-related activities, granted most of these countries fall within the same regional economic community (REC), namely Southern African Development Community (SADC). Santana-Gallego *et al.* (2011:109-110) state that the links between tourism and trade are substantiated (see Figure 5.2). In an African context, with South Africa as reference, Statistics South Africa [Stats SA] (2010:12) states that the origin countries (African) of tourists travelling to South Africa from total arrivals, include Zimbabwe, Lesotho, Mozambique, Swaziland, Botswana, Namibia, Zambia, Malawi, Nigeria, Kenya, Ghana, Uganda, Ethiopia, Cameroon, Gabon and Egypt. Moreover, it is necessary to establish if it is easy to travel between South Africa and these countries especially depending on visa regulations.

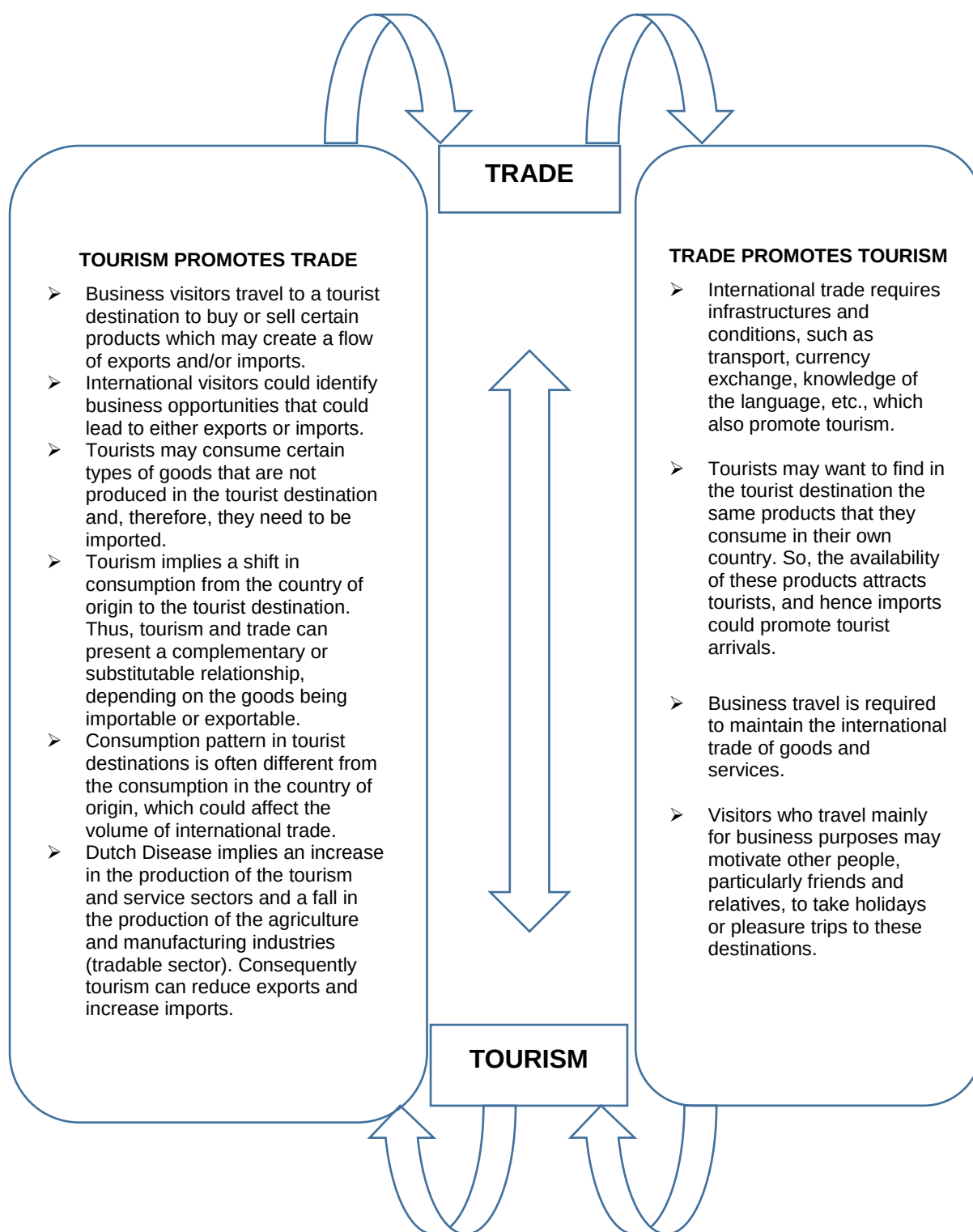


Figure 5.2: The links between tourism and trade

Source: Adapted from Santana-Gallego et al. (2011:110)

The Department of Home Affairs (2014:online) recognises that the following African countries are exempt to apply for tourist visas to South Africa, namely Botswana, Namibia, Zambia, Zimbabwe, Benin, Cape Verde, Gabon, Lesotho, Malawi, Mauritius, Mozambique, Seychelles

and Swaziland. Stats SA (2010:12) indicates that the distribution of SADC and other African countries arrivals according to the purpose of the visit, are as follows:

Table 5.1: Purpose of visits to South Africa (2010)

Purpose of visit	SADC	Other African countries
Transit	0.9%	5.7%
Study	1.0%	3.7%
Holiday	94.8%	86.6%
Business	3.2%	4.0%

Source: Stats SA (2011:14)

As indicated in Table 5.1, it is evident that although tourism contributes to the movement of people, travelling for business purposes is still underutilised in its potential to develop trade within Africa. Therefore, the following section delves into the relationship between trade and tourism.

5.3.2 Trade promoting tourism

As seen from the discussion above, tourism does have the potential to contribute towards the development of trade between neighbouring or regional countries. Even so, in Africa this does not seem to be the case. In spite of this, it is critical to determine if tourism is more accessible between countries or regions within Africa that do trade with each other. Santana-Gallego *et al.* (2011:105) reveal that trade promotes tourism (short-run), and contributes to growth theory, as trade (tourism as a type of trade) promotes growth by means of increased market size. According to the World Economic Forum [WEF] (2016:online) and the United Nations Conference on Trade and Development (UNCTAD, 2013:2), African countries should trade more with each other and overcome the challenges for the fragmented state of the continent. In 2014, intra-African trade was 18% which has shown a firm growth from its 10.9% in 2011 (Table 5.2). In 2014, however, intra-regional trade for Europe (69%), Asia (52%) and North America (50%) remained far more prominent. In view of these statistics, it is critical to determine the contributing causes to the decline in growth and low trade figures. Many assigns the responsibility on historical causes of colonisation, inadequate infrastructure, non-tariff barriers, low investment and low competitiveness between African countries, economic vulnerability due to external shocks, lagged growth and development opportunities, and limited participation in global value chains. Infrastructure, especially electricity, transport (ports) and Internet have an influence on African trade. This is evident in the merely 30% of Africans that have access to electricity, creating industrialisation difficulties. Furthermore, 90% of African trade occurs by sea, thus ports need to be upgraded and modernised. Africa's average Internet penetration is 28.6%, with the global average being 50%. This impacts on trade, telecommunication, and tourism (WEF, 2016:online). According to the World Bank

(2015:online), regional supply chains can boost exports of manufactured goods and that behind-the-border-barriers and anti-competitive regulations are major obstacles, as well as policies on non-tariff barriers, trade logistics and service market regulations. These policies and regulations not only inhibit the flow of products, but also of people. Therefore it also has an impact on tourism development across the continent. The lack of visa openness in Africa makes it increasingly difficult for tourism arrivals into the continent. Africans are also subjected to this lack of visa openness, making Africa inaccessible to Africans. Nearly 55% of all Africans require visas to travel within Africa (African Development Bank [AFDB], 2016a:1). The associated cost and time to procure a visa discourage Africans to travel within Africa, as only 13 countries offer visa-free or visa on arrival entry (AFDB, 2016a:13). Business visas are also more difficult to procure, causing almost impossibility for Africans to work across Africa's 600 borders (AFDB, 2016a:23).

Table 5.2: Inter-regional trade in Africa compared to other developing areas

	Exports			Imports		
	1996 – 2000	2001 – 2006	2007 – 2011	1996 – 2000	2001 – 2006	2007 – 2011
Developing Africa	9.7	9.8	10.9	13.3	13.5	12.7
Eastern Africa	12.4	14.1	13.9	8.8	9.3	7.1
Central Africa	1.2	1.0	1.3	2.6	2.5	3.1
Northern Africa	3.2	2.9	3.9	2.8	3.7	3.8
Southern Africa	4.4	2.1	2.1	11.9	10.7	7.9
Western Africa	10.2	10.0	9.0	11.3	12.5	10.2
Developing America	19.1	17.6	20.6	17.6	19.0	21.1
Developing Asia	41.5	45.1	50.1	40.6	49.3	53.0
Developing Oceania	1.3	3.0	3.3	0.9	2.3	2.7
Europe	67.3	71.4	70.0	68.3	67.0	64.0

Source: UNCTAD (2013:13)

Table 5.2, the share of intra-African trade is lower than those in other developing regions, namely developing America and developing Asia. Compared to European regional trade, Africa is lagging far behind. As mentioned in Chapter 3 (cf. 3.2.5.1) Africa's regional economic communities are aimed at regional economic integration (REI) by means of: (a) Trade and market integration; (b) Macroeconomic policy convergence; (c) Free movement of persons; (d) Peace, security, stability and governance; and (e) Harmonisation of sectoral policies (UNCTAD, 2016:online). Table 5.3 indicates the intra-regional trade between the Southern Africa Development Community (SADC) countries for 2010. Here the total amount (in \$ million) for imports and exports between the region is specified, as well as the share (in %) of the total imports and exports.

Table 5.3: Intra-SADC trade matrix, in \$ million for 2010 trade

	IMPORTER																
EXPORTER	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	Total	% export
(1) Angola		0.1			0.0	0.0	2.0	0.2	4.7		1,998	0.0	3.3	0.0	4.2	2,013	8.5%
(2) Botswana	0.3		18.9	0.7	0.0	7.5	0.0	0.9	16.5		148.4	1.2	2.5	17.6	241.3	456	1.9%
(3) Dem. Rep. Congo		0.3		0.0	0.2	0.0	0.1	0.1			14.1	0.0	1.1	1268.6	25.6	1,310	5.6%
(4) Lesotho		0.1			0.3	0.1	2.0	0.0	0.0		0.9	0.1	0.2	0.0	8.9	13	0.1%
(5) Madagascar	0.0	0.4	1.3	0.0		0.0	18.5	0.1	0.0	5.3	22.0	0.1	3.2	0.0	0.0	51	0.2%
(6) Malawi		1.0	2.2	0.3	0.3		1.5	6.4	0.1	0.1	64.2	4.3	12.2	13.2	78.6	184	0.8%
(7) Mauritius	2.1	4.4	4.8	1.6	133.2	5.6		14.9	0.1	20.3	96.7	0.1	8.2	11.1	80.6	384	1.6%
(8) Mozambique	2.5	8.6		0.1	6.7	31.3	4.1		0.1	0.0	527.6	2.0	19.2	16.6	257.0	876	3.7%
(9) Namibia		68.2		0.5	0.0	19.3	0.9	16.7		0.0	67.8	3.7	1.3	12.6	20.6	212	0.9%
(10) Seychelles		0.0			20.9	0.4	13.9	0.1	0.0		0.9	0.2	6.3	1.0	1.3	45	0.2%
(11) South Africa	700	4,065	866	878	197	654	371	1,227	0	56		0	768	1,825	4,433	16,039	68.1%
(12) Swaziland		5.7		2.5	1.9	15.7	8.5	18.0	9.6	0.9	0.1		32.8	12.3	30.0	138	0.6%
(13) Tanzania	3.2	0.2	154.9	3.1	1.5	36.9	3.5	61.7	0.6	3.4	63.1	1.3		40.8	2.6	377	1.6%
(14) Zambia	3.0	14.6	333.5	0.3	0.0	120.5	6.3	1.1	19.6	0.0	289.1	5.1	30.8		220.4	1,044	4.4%
(15) Zimbabwe	4.2	37.4	25.0	7.4	0.0	32.9	6.7	3.2	5.7	0.2	191.2	16.6	1.1	72.0		404	1.7%
Total	715	4,206	1,406	894	362	925	439	1,350	57	87	3,484	35	891	3,291	5,404	23,545	100%
% Imports	3%	17.9%	6%	3.8%	1.5%	3.9%	1.9%	5.7%	0.2%	0.4%	14.8%	0.1%	3.8%	14%	23%	100%	

Source: Adapted from Sandrey (2013:12)

This is only an indicator as the African economy has changed drastically over the past couple of years. Concerning exports percentage (2010), the most significant exporter was South Africa (68.1%), and the least significant was Lesotho (0.1%), while the most significant importer was Zimbabwe (23%), and the least significant importer was Swaziland (0.1%). This clearly shows a vast difference in the distribution of imports and exports in the SADC region. These statistics lead to the inquiry if trade then reflects tourism between these countries. In this instance, South Africa was used as an example. For exports from South Africa, the most significant African importers were Zimbabwe, Botswana, Zambia and Mozambique, while the highest exporters to South Africa were Angola, Mozambique, Zambia and Zimbabwe (see Table 5.3). Santana-Gallego *et al.* (2011:93) state that business tourism is required to begin and then sustain international trade of goods and services. Therefore, business as the purpose of travel is an indicator whether trade reflects tourism. According to Stats SA (2010:13) the number of arrivals to South Africa (2010) from SADC countries for business purposes, included Mozambique, Lesotho, Namibia, Zimbabwe, Swaziland, Zambia, Botswana, and Mali. Since South Africa causes a landlock for Lesotho and Swaziland, the high ratio of business arrivals from Lesotho and Swaziland was expected (see Table 5.4). Moreover, arrivals from Mozambique, Zambia and Zimbabwe support the “trade promotes tourism” theory (Santana-Gallego *et al.*, 2011:93). Fourie and Santana-Gallego (2013:347) point out that ‘African economies could enhance their short-run economic growth by strengthening their tourism industries strategically’.

Table 5.4: African business arrivals to South Africa in 2010

COUNTRY	2010	COUNTRY	2010
SADC		OTHER AFRICA	
Mozambique	42,4%	Kenya	24,4%
Lesotho	25,3%	Nigeria	15,3%
Namibia	13,0%	Uganda	8,4%
Zimbabwe	5,7%	Egypt	8,2%
Swaziland	5,2%	Ghana	5,1%
Zambia	4,7%	Cameroon	4,1%
Botswana	1,2%	Ethiopia	3,7%
Malawi	1,0%	Sudan	3,5%
Other	1,6%	Other	27,3%

Source: Stats SA (2010:13)

5.4 The Trade theory

According to Cho and Moon (2013:1), the traditional trade theories are rooted in mercantilism, which advocated a protectionist approach to trade, i.e. export promotion and import restriction. Here follows a brief and non-exhaustive description on the development of the international trade theory that serves as background for the approach followed in this Chapter.

The international trade theory originated from the liberal response towards mercantilism (Dorobăţ, 2015:15). The seminal work of Adam Smith (1776) "The Wealth of Nations" signified the division of labour to increase output, while international trade was considered a specialisation. Smith (1776) theorises that the amalgamation of (1) scarce resources; and (2) unlimited needs result in the specialised production of goods at the lowest absolute cost. Smith's theories were later enriched by David Ricardo (1821), who described the principles of comparative advantage. Ricardo theorises that countries should specialise in producing goods by requiring lower relative, not absolute, costs. Smith and Ricardo considered cooperation (trade) as mutually beneficial for all countries (Dorobăţ, 2015:111). Smith's main arguments concerned government interference that hampers the natural growth of a nation's economy. In contrast, specialisation possesses the ability to focus on a nation's self-sufficiency. Smith's argument relied heavily on the natural order of investments i.e. agriculture, manufacturing, domestic as well as foreign trade (Negishi, 2014:16), and the introduction of competition. All of the above, assured that people and nations would do, what they were best fitted to do (Cho & Moon, 2013:7; Mitschke, 2008:94).

In comparing the productivity of countries, absolute advantage is regarded as using a smaller quantity of inputs to produce products and services (Mankiw, 2011:54). However, when one country has absolute advantage in producing all products, it is questioned if there are still gains from trade for other countries. David Ricardo introduced the comparative advantage theory, which states that superior countries should specialise where it has the greatest relative advantage (Negishi, 2014:22). Ricardo's comparative advantage theory, which was based on labour productivity, did however not adequately explain labour productivity differences between countries. Furthermore, Smith and Ricardo could not adequately explain whether a country had absolute or comparative advantage (Mitschke, 2008:96; Gandolfo, 2014:11).

When examining absolute vs. comparative advantage in economics, it is necessary to understand that production costs, quality and efficiency have an influence. Even though one country has absolute advantage in particular products and/or services, it does not mean that other countries might not produce on a comparative advantage level. Since no one country has absolute advantage in producing all known products and/or services, free trade will still

occur because of comparative advantage in other countries (Hunt & Morgan, 1995:4). Another prominent research topic is competitiveness, where the Heckscher-Ohlin (HO) model is used in conjunction with the comparative advantage theory (Ricardo) to determine the comparative advantage of goods, but with different approaches. The Ricardian theory states that comparative advantage is due to changes in technology across countries, whereas the HO-theory assumes that the differences are because of factor prices across countries (Jackman, Lorde, Lowe & Alleyne, 2011:352). The HO trade theory focused on the relationship between countries' factor endowments, commodity trade patterns and the consequences of free trade on the functional distribution of income within a country (Mitschke, 2008:99; Jones, 2008:1; Zhang, 2008:33; Gandolfo, 2014:63). The HO trade theory states that comparative advantage arises from the differences in factor endowments, for example, the differences in countries are associated with the factors of production which that country has, while products differ as the factors required to produce them are not the same (Cho & Moon, 2013:9).

Free trade will equalise factors of production between countries, implying that trade liberalisation influences income gaps between countries. This dictates that income gaps will reduce once trade barriers are lowered, and that the formation of trading blocs is far more beneficial for low-income countries. (Cho & Moon, 2013:10). However, Jones (2008:2) states that this could lead to factor intensity reversal, especially where the cases are two-country, two-factor, two-commodity trade. Factor intensity reversal refers to the possibility that production processes may be independent of one another, which results in the making of incomplete assumptions (Zhang, 2008:37; Gandolfo, 2014:103). The production-possibility frontier indicates the maximum quantity of goods that an economy can efficiently produce, given technological knowledge and available inputs (factor endowments) (Samuelson & Nordhaus, 2010:10). However, some argue that free trade benefits the superior country (abundant factor) and harms the inferior country (scarce factor). It indicated that the inferior country might want to restrict free trade. Still, this will lead to a reduction in income (Zhang, 2008:39). In a competitive setting, the changes that affect the commodity price must reflect an average of factor price changes, so that unit cost changes are similar to price changes. Although the inferior country loses on trade, the country will still benefit from trade liberalisation, which implies that an income redistribution policy (tax) is needed (Cho & Moon, 2013:11; Gandolfo, 2014:104).

The relationship between factor endowments and commodity outputs reveal that when one factor should expand, it must be absorbed to produce the commodity intensely (Zhang, 2008:40). Therefore, the expanding sector must be supplied with a dose of the non-expanding factor, which is only sourced from the contracting sector or industry. This implies that a country

can change its relative factor endowments by changing its investment patterns, while factor endowments are fixed in the classical theories of Smith and Ricardo (Cho & Moon, 2013:12; Gandolfo, 2014:105). Gandolfo (2014:167), on the other hand, notices that products go through the product life cycle (i.e. introduction, growth, maturity and decline) and for that reason comparative advantage would also shift from one country to a next throughout the product's lifetime. This hypothesis has a very powerful predictive power, but has changed as a result of multinational firms that acquire the capacity for global scanning, introducing the possibilities of exports and foreign investments. Furthermore, this hypothesis is very useful for developing countries who are trying to absorb developed countries' innovation. This explored the similarities between countries, as developed and developing countries differ considerably (Cho & Moon, 2013:14).

Country similarity theory, also known as Linder's hypothesis, explains international trade between countries with similar characteristics (Zhang, 2008:51; Gandolfo, 2014:169). Two assumptions drive the theory. Firstly, countries will export products which are popular in the domestic market, as manufacturers introduce new products to serve the domestic market so that economies of scale are reached and costs are reduced. Secondly, the exported product will be marketed to countries with similar taste and income levels. Therefore, primary production concentrate on the domestic market, and only a fraction of the output is exported to similar countries. The most important contribution of Linder's theory is the identification of economies of scale and domestic demand that assists in explaining different types of international trade (Cho & Moon, 2013:16). Linder's hypothesis is further discussed in section 5.4.2.

Moreover, economies of scale and increasing returns introduced by Linder are very apparent in certain industries, where if inputs were doubled, outputs would more than double (Zhang, 2008:78). This explains trade patterns that are not addressed by the HO model. The production of a limited number of goods will benefit countries if economies of scale assumptions hold true (Cho & Moon, 2013:18; Gandolfo, 2014:180). This contributed heavily to the new trade theory, which highlights the importance of economies of scale and network effects in key industries as a determinant of international trade patterns (Krugman, 1980:952). According to the new trade theory, economies of scale and network effects have the ability to be more significant than comparative advantage. New trade models integrate four advances within the traditional view of economics; (1) market imperfections, (2) strategic behaviour and new industrial economics, (3) new growth theory, and (4) political economy (Deraniyagala & Fine, 2001:812).

Trade liberation is a central argument within the new trade theory, due to knowledge transfers. Krugman (1987:133) states that new trade models challenged the traditional model's view that all trade is an exploitation of comparative advantage. Yet, it did not address the mutual benefits of trade. The incorporation of increased returns and imperfect competition reinforced the argument for gains from trade. Keum (2010:543) states that the new models surpassed the classical models since problematic assumptions, for instance, zero trade barriers, homogeneous production functions, constant returns, transportation costs, and perfect competition, could not be accounted for.

The new-new trade theory (NNTT) stresses the importance of firms, rather than sectors, within a country to address challenges and opportunities within a globalised world (Ottaviano, 2011:4). Traditional theories are evoked to identify the industries which hold comparative and competitive advantage potential. Moreover, in an ever more liberalised trade market, the sectoral view of trade has been challenged, opting instead for firm-based analysis (Baldwin & Robert-Nicoud, 2008:23). Ciuriak, Lapham, Wolfe, Collins-Williams and Curtis (2011:3) state that trade liberation is multi-faceted and that trade-related productivity gains in an economy are derived from the composition of the firms within the industry. Therefore, weaker firms will exit the economy with production being relocated to more efficient and stronger firms, exploiting firm-level economies of scale. NNTT could also attempt to return to some reminiscence of Ricardian trade theory and to gravity models of trade (Kotlewski, 2013:8).

Bun and Klaassen (2002:2) state that the gravity model concept can explain bilateral trade (attraction) by national incomes of trading countries (mass) and distance (similar in physics). Gravity model estimations of international trade are effective procedures to investigate international trade flows, especially concerning trading blocs and economic areas (Mátyás, 1997:363). Augmentation of the model has incorporated many other variables such as population size, trading bloc and currency union dummies as well as common cultural or ethnic characteristics. Unsurprisingly, adapting the model to suit specific investigations like tourism demand has also been popular in recent studies (see Witt & Witt, 1995:448; Morley, Rosselló & Santana-Gallego, 2014:2; Santana-Gallego, Ledesma-Rodríguez & Pérez-Rodríguez, 2016a:50).

In conclusion, these theories, traditional, neoclassic and new trade, have all contributed to a better understanding of international trade and the manner in which trade patterns or flows can be observed and analysed. The following section discusses the methods that are employed to evaluate if trade can be used to foster tourism between regions and lead to intra-African travel.

5.5 Theoretical models

In this section, particular attention is given to three main models that assist in explaining how nations trade and the way it has then been applied to tourism. The previous section has provided some insight into how the models evolved, however, a more in-depth explanation can be expected from this section. The three models that are discussed in this section, are: (a) The HO-model of resource endowment, together with the Ricardian comparative advantage theory; (b) Linder's country similarity model; and (c) The gravity model.

5.5.1 HO-model together with the Ricardian comparative advantage theory

As indicated previously, the Ricardian theory of comparative advantage is based on labour productivity differences, and the subsequent theory of Heckscher-Ohlin (HO). The latter theory ascribed the differences in productivity as a result to differences in factor endowments. Both these theories therefore focus on competitiveness of a country, but from different perspectives. Using both the views in tourism competitiveness implies an analysis of the comparative advantage of destinations, as well as the factor endowments. The comparative advantage is empirically revealed through the Balassa index (Balassa, 1965):

$$RCA_{ij} = \frac{x_{ij}/\sum_i x_{ij}}{\sum_j x_{ij}/\sum_i \sum_j x_{ij}} \quad (5.1)$$

Where x_{ij} represents exports of sector i from country j (Du Toit, Fourie & Trew, 2010:5).

However, according to Du Toit *et al.* (2010:6) more precise and consistent comparisons across time, countries and commodities can be made when another method of measurement is used, i.e. the normalised revealed comparative advantage (NRCA), which is used as a dependent variable in the Equation:

$$NRCA_{ij} = \frac{x_{ij}}{\sum_i \sum_j x_{ij}} - \frac{(\sum_i x_{ij})(\sum_j x_{ij})}{(\sum_i \sum_j x_{ij})^2} \quad (5.2)$$

To test the theory for travel service exports, Du Toit *et al.* (2010:7) hypothesised cross-country differences to reveal comparative advantage as a function of relative resource endowments. For example, for country i the comparative advantage in good j is determined by capital (K_i), labour (L_i), natural environment (N_i) and a collection of other possible sources (R_i) as in the following Equation:

$$NRCA_j = F(K_i, L_i, N_i, R_i) \quad (5.3)$$

And as a simple linear relationship the equation is as follows;

$$NRCA_j = C + K_i + L_i + N_i + R_i + \varepsilon_i \quad \varepsilon_i \sim ID(0, \sigma_i^2) \quad (5.4)$$

The model should be treated stochastically if data is subject to random variation. Although the HO theory has been mentioned, factor endowment differences between destinations have not been formally tested as a source of destination competitiveness. The HO-theory primarily relies on differences in country endowments to explain the international pattern of trade and production (Debaere & Demiroglu, 2003:102). The most commonly used analogy includes the ratio between capital and labour. When a country is more capital abundant, it will export capital abundant products, while labour abundant countries will export labour abundant products. The HO-model has been applied to many scenarios related to trade, such as demand for skills (Michaels, 2008:700), unemployment reduction (Dutt, Mitra & Ranjan, 2009:32), and per capita income (Markusen, 2013:256).

5.5.2 Linder's hypothesis

The country similarity model, as previously mentioned, is driven by two assumptions. Firstly, countries will export products which are popular in the domestic market, as manufacturers introduce new products to serve the domestic market so that economies of scale are reached, and costs are reduced. Secondly, the exported product will be marketed to countries with similar taste and income levels. Linder (1961:7) states that the framework for the theory is based on understanding which forces contribute to international or inter-regional specialisation and trade patterns. Linder (1961:106) indicates that due to real world trade, the patterns of trade could be: (a) To some extent accidental; (b) Not particularly unstable; and (c) Gradually changing over time. The theory provides insight into potential trade as many variables have an influence on actual trade such as the distance factor, transport costs, and human-made obstacles (tariffs) that are trade-braking forces (Linder, 1961:107). Linder (1961:107) continues that potential trade between countries with similar demand structures (income per capita) would be most intensive. In the case of trade growth within Africa, the trade-braking forces identified above do have a large influence.

5.5.3 Gravity model

The basic assumption of the gravity model is that a country will experience a higher degree of trade with another country sharing common characteristics. Distance, both geographically and culturally, based on similar language, currency, colonial connections and political history enhances trade. Moreover, if the country is rich in resources, as well as being geographically

large, enhanced trade will occur compared to countries that do not share the same characteristics (Ciuriak & Kinjo, 2006:189). The popularity is due to the opportunity to project bilateral trade (Egger, 2002:297). The model was developed by means of using Newton's gravitational force theory by Walter Isard in 1954. The model is based on the following Equation (Fry, 2015:31):

$$T_{ij} = A \frac{Y_i Y_j}{D_{ij}} \quad (5.5)$$

T represents trade flow between two countries (i and j), while Y represents the economic mass of two countries and D represents the distance, and A is a constant. Therefore, the gravitational force between two countries can be calculated if the object mass ($Y_i Y_j$) and the distance (D_{ij}) are known. The application of the model has been widely used in testing international trade patterns, currency unions and border effects (see Carrère, 2006:224; Burger, Van Oort & Linders, 2009:167; Westerlund & Wilhelmsson, 2011:641). The gravity model has also been applied to tourism scenarios such as transport infrastructure (Khadaroo & Seetanah, 2008:832), tourism flows (Keum, 2010:542), tourism demand (Hanafiah & Harun, 2010:80; Hanafiah, Harun & Jamaluddin, 2010:110; Leitão, 2010:18; Morley *et al.*, 2014:2) and tourism competitiveness (Muhammad & Andrews, 2008:52; Seetanah, Durbarry & Ragodoo, 2010:715; Chang & Lai, 2011:964; Fourie & Santana-Gallego, 2013:351; Fourie, Rosselló & Santana-Gallego, 2015:56). The model does succeed in explaining trade flow empirically. Still, a few flaws are evident such as lack of theoretical foundation, absence of comparative advantage and trade flows being larger or smaller than forecasted (Fry, 2015:32). This has been addressed by the NTT.

Unsurprisingly, gravity models are very aptly named as the specifications takes into account the effects of "gravity" factors for instance market size and distance to model trade between countries (Blanchard, Gaigné & Mathieu, 2008:669). If tourism is seen as a result of trade, the use of the gravity model is very appropriate. This appropriateness is not only determining trade flows, but also tourism flows between trade agreement countries or countries that are in proximity to one another. According to Mátyás (1997:363), gravity models have the ability to provide the statistical significance of trading blocs and economic areas. Specific country effects might be treated as random variables (error components approach) or as fixed parameters (fixed effects approach). These approaches may also include certain restrictions depending on the type of data used, where panel data sets have no restrictions, compared to cross-sectional data or time-series data (Mátyás, 1997:364). Westerlund and Wilhelmsson (2011:641) state that the use of panel data is more appropriate given that cross-sectional data

is biased due to heterogeneity among countries which cannot be controlled for. On the other hand, panel data offers the ability of control through a country specific fixed effects model, and permits general types of heterogeneity.

Prediction is better if gravity models are applied to trade in services rather than directed at trade in goods (Morley *et al.*, 2014:2). It is clear that tourism is a special case of trade in services. Then also, in the African context, tourism is considered unique because of the composition of trade within the continent and between RECs and countries internal to the trade blocs. Fourie and Santana-Gallego (2013:347) studied the differences of inbound- and within-Africa tourism and found that distance, tourism infrastructure, trade flows, regional trade agreements, land area, coastline, the language dummy, and political stability for both within-African and Africa-bound tourism are similar in sign and significance. It is evident that, within-Africa travellers are less sensitive to price. Furthermore, it is clear that border effects explain a large component of within-Africa tourism movement. Political stability proves to be a less important indicator for within-African tourists, while historical and cultural characteristics do matter for the within-African travellers.

5.5.4 Modelling tourism demand based on theories

As seen from the discussions above, the gravity model and Linder's hypothesis (Linder's income similarity thesis) are useful estimations to determine tourism demand. Regarding the gravity model, distance is a major contributor to tourism flows, especially when considering the size of economies. In other words, it means that trade and/or tourism flows between two countries are proportional to the scale of the economies and that the distance between the two partners affects the economies (Keum, 2010:544). The size of the "economy" is interchangeable with proxies or independent variables such as population, income level, or purchasing power. Although the gravity model is primarily used to explain trade flows, the movement of people or human flows are also accounted for, making the model indispensable in understanding which variables influences flows (Keum, 2010:546).

According to Lorde, Li and Airey (2015:2) a number of tourism gravity studies have appeared in which tourism flows are evaluated or determined by a myriad of variables such as the effect of consulates/embassies, common currency (Euro), population size, source market income, common language, and exchange rates. Some studies have also investigated which variables might deter or cause flows to deviate for instance terrorist attacks. Similar to migration, tourism is the movement of people from an origin to a host country. The effects of migration on trade have empirically been established and indicate that larger bilateral migration is associated with larger trade flows (Santa-Gallego, Ledesma-Rodríguez & Péres-Rodríguez, 2016b:1026).

This further enforces the theory that tourism contributes to trade as stipulated in section 5.2.1. Furthermore, tourism has the potential to reduce cultural distance between countries, which results in reduced research costs of foreign standards and enhances bilateral trade (Santa-Gallego *et al.*, 2016b:1027). Since tourism has the capacity to enhance trade, an investigation into trade factors has been extensively studied. The effect of trade openness on growth (market size that facilitates growth) states that the relationship is direct since both trade and tourism increases market size. Moreover, inbound tourism could also be reflected as an export for the destination country, as consumers move instead of products (Santa-Gallego, Ledesma-Rodríguez, Péres-Rodríguez & Cortés-Jiménez, 2010:1812; Keum, 2010:549).

Considering Linder's hypothesis (LH), it is important to note that the preference similarity involving demand structure and patterns (presumably associated with common income) will dictate bilateral flow. When per capita income between two countries is similar, the hypothesis predicts that larger volumes of flows will occur (Lorde *et al.*, 2015:3). However, this is only true when developing countries trade with developing countries and developed countries trade with other developed countries. According to Keum (2010:544), LH has been widely scrutinised, with many papers for and against the model. These mixed results are very dependent on the data that was used, as results seem to differ and vary depending on the empirical case groups. Furthermore, LH seems to work well in economic unions, thereby supporting further investigation due to increased propensity of globalisation and economic integration. As tourism is a catalyst for globalisation and integration, the research into applying LH for tourism was rationalised. Furthermore, LH is the only theory taking preferences and taste into account to explain the direction of international trade flow (Zhang & Jensen, 2007:225).

Therefore, it is useful in a tourism context as tourism is depended on preferences and taste. In their research, Du Toit *et al.* (2010:11) concluded that "a country's local demand in tourism increases the comparative advantage of exporting travel services", based on LH. In this case, local tourism demand in one country can result in an increase in inbound arrivals. As to the revealed comparative advantage (RCA), Fourie (2011:214) states that the RCA expresses the percentage share of a given service sector in national exports. Nevertheless, the normalised RCA (NRCA) is more precise across time, country and sector, and therefore more robust results were expected. Du Toit *et al.* (2010:6) state that African countries tend to have high RCA in travel services export, and strong NRCA for certain countries like South Africa, Egypt, Tunisia and Morocco, while having a moderate NRCA for countries like Uganda, Rwanda, Tanzania, Mali and The Gambia. However, Africa lacks in sufficient travel service export data. Fourie (2011:222) confirms that South Africa has a strong RCA, and countries that border

South Africa (Namibia, Botswana, Mozambique, Lesotho and Swaziland) benefit from this through high NRCA scores.

5.6 Method

The discussion of the method used in this study focuses on three main aspects, namely the estimating equation, the data and variables that were applied and the estimating methods.

5.6.1 Estimating equation

The baseline estimating equation used in this study follows a typical gravity model specification that has been applied by Gil-Pareja *et al.* (2007:305), Priego, Rosselló and Santana-Gallego (2015:293), and Santana-Gallego *et al.* (2016b:1029) in the tourism context:

$$\ln Arrivals_{ijt} = \beta_0 + \beta_1 \ln GDPpc_{it} + \beta_2 \ln GDPpc_{jt} + \beta_3 \ln Pop_{it} + \beta_4 \ln Pop_{jt} + \beta_5 \ln Distance_{ij} + \beta_6 \ln RelPrice_{ijt} + \beta_7 ComColony_{ij} + \beta_8 ComLanguage_{ij} + \beta_9 ComBorder_{ij} + \gamma_i + \delta_j + \lambda_t + \varepsilon_{ijt} \quad (5.6)$$

Where arrivals refer to the number of tourist arrivals from origin country j , to, destination country i in year t , and $\ln$ indicates that natural logarithms of the data are used to ensure linearity of the estimated β s. Included in this Equation is two measures for mass, namely the GDP per capita of the origin and destination countries as well as the population sizes of the origin and destination countries. Furthermore, the distance between the countries are included as well as the relative price differences between the destination and origin countries. The relative price is calculated as the relative consumer price index between the two countries and therefore represents the price competitiveness of the destination.

Furthermore, cultural proximity between the origin and destination country is controlled by using two variables namely Common Colony and Common Language. The former is a dummy variable that takes the value of unity when the countries in question had a common coloniser. The second is also a dummy variable that controls for common ethnic languages spoken in both the origin and the destination country. These variables are associated with stronger social ties between countries, and the expected effect is therefore, positive on tourism arrivals between the two countries (Saayman, Figini & Cassella, 2016:1288). Similarly, the gravity model controls for common borders, with a dummy variable that takes the value of one, when countries share a common border.

To control for unobserved heterogeneity, country-specific and year-specific effects fixed effects are included in the estimation, denoted by γ_i , δ_j and λ_t . The use of fixed effects (FE) is particularly useful when the point of the estimation is aimed at analysing the impact of variables that vary over time. FE results are used in the exploration of the relationship between a dependent and an independent variable within a country, just as each country has particular characteristics that may influence the dependent variable (arrivals). Moreover, the FE provides the ability to assume that something within the country might impact or be biased towards the dependent variable, which must be controlled for, giving rise to the assumption of the correlation between the counties error term and dependent variable (Torres-Reyna, 2007:9).

Finally, ε_{ijt} represents a well-behaved error term. This model is referred to as the least-square dummy variable (LSDV) model and is a special case of the panel fixed effect model. The model includes destination and origin dummy variables separately, and therefore it does not control for factors that are common in both countries. The exclusion of bilateral factors that may influence the model is referred to as omitted variable bias. In gravity models, three alternative methods are available in dealing with omitted variable bias, namely: (i) Country-pair fixed effects; (ii) Country-year fixed effects; or (iii) A multi-lateral resistance term (Gil-Pareja, Llorca-Vivero & Martínez-Serrano, 2014). In this research, the multi-lateral resistance term (MRT), introduced by Anderson and Van Wincoop (2003), is included to control for omitted variable bias. It is a bilateral trade cost measure that is unique to each country and is compiled as follows (Saayman *et al.*, 2016):

$$MRT_{it} = \sum \frac{\frac{distance_{ij}}{GDP_{jt}}}{GDP_{world,t}} \quad (5.7)$$

The baseline model is therefore expanded to include the multi-lateral resistance term (MRT):

$$\begin{aligned} \ln Arrivals_{ijt} = & \beta_0 + \beta_1 \ln GDPpc_{it} + \beta_2 \ln GDPpc_{jt} + \beta_3 \ln Pop_{it} + \beta_4 \ln Pop_{jt} + \beta_5 \ln Distance_{ij} + \\ & \beta_6 \ln RelPrice_{ijt} + \beta_7 MRT_{it} + \beta_8 ComColony_{ij} + \beta_9 ComLanguage_{ij} + \beta_{10} ComBorder_{ij} + \gamma_i + \\ & \delta_j + \lambda_t + \varepsilon_{ijt} \quad (5.8) \end{aligned}$$

These specifications of the model, therefore, test the gravity theory and it is expected that the variables measuring mass, i.e. population and GDP per capita, will all have positive signs, while the distance variable and the MRT will have negative signs.

The gravity specification above was also expanded to test for (a) Linder's hypothesis, (b) Ricardian comparative advantage theory, and (c) the Heckscher-Ohlin resource endowment theory. For Linder's hypothesis, the research by Kuem (2010) and Lorde, Li and Airey (2015) were followed in compiling a Linder variable. According to these authors, Linder's hypothesis can be modelled in two ways: (1) The absolute value of the difference between the two countries' GDP per capita (called Linder1 in this thesis); and (2) The absolute value compiled in (1), but as a ratio of the sum of the GDP per capita of the origin and destination countries (referred to as Linder2 in this thesis). Therefore, the variables Linder1 and Linder2 were compiled as follows:

$$Linder1_{ijt} = |GDPpc_{it} - GDPpc_{jt}| \quad (5.9)$$

$$Linder2_{ijt} = \frac{|GDPpc_{it} - GDPpc_{jt}|}{(GDPpc_{it} + GDPpc_{jt})} \quad (5.10)$$

In the African context, it may be argued that GDP per capita is not the only variable to consider when country similarities in taste and preferences are evaluated. Therefore this research also considered differences in the urbanisation rate between African countries as a possible variable that may indicate similarities in taste and preferences between countries. These variables were compiled similar to the Linder variables above, using the urbanisation rate rather than GDP per capita, i.e.:

$$Linder3_{ijt} = |Urbanisation_{it} - Urbanisation_{jt}| \quad (5.11)$$

$$Linder4_{ijt} = \frac{|Urbanisation_{it} - Urbanisation_{jt}|}{(Urbanisation_{it} + Urbanisation_{jt})} \quad (5.12)$$

In all instances, the sign was expected to be negative, since a smaller difference in GDP per capita or urbanisation rates had been associated with increased tourism between the two countries in question.

Besides the inclusion of the Linder variables, the gravity model was also expanded to include Ricardian comparative advantages. The revealed comparative advantage (RCA) and normalised revealed comparative advantage (NRCA) variables were constructed as indicated in Equations 5.1 and 5.2. Both these were also included separately into the gravity specification to test for significance to explain tourism flows in Africa. In general, these terms were expected to relate positively to tourist arrivals.

Finally, the Heckscher-Ohlin theory was tested through the construction of factor endowment differences between countries. Firstly, since tourism is a labour-intensive sector, the ratio between the destination and origin population was considered (referred to as pop_dif in the models). Secondly, differences in natural resource endowment, on which tourism depend, were considered through the calculation of two proxies, namely the ratio of marine protected areas between the destination and origin country (marine_dif in models), and the ratio of terrestrial protected areas between the destination and the origin countries (terra_dif in models). It was expected that a larger ratio of endowments would lead to increased tourism flow and therefore a positive sign was expected.

5.6.2 Data

Similar to Chapter 4, there were 25 African countries considered in the analysis for the years 2001 to 2010. The data variables that were used, description of each and the data sources are summarised in Table 5.5.

Table 5.5 Variables and data sources used in the analysis

Variable	Description	Source
Arrivals	Tourism arrivals from origin j to destination i	UNWTO
GDP per capita	(Total GDP - Constant US\$) / (Population, total) = GDP per capita	World Bank Development Indicators (WBDI)
Population	Population, total	WBDI – UN Population Division
Relative price	Defined as $\frac{CPI_i}{CPI_j}$	WBDI
Distance	Bilateral distances (in kilometres)	Centre d'Etudes Prospectives et d'Informations Internationales (CEPII)
Common Language	Common Language is a binary one, either 0 or 1.	CEPII
Common Coloniser	Common Coloniser is a binary one, either 0 or 1.	CEPII
Common Border	Common Border is a binary one, either 0 or 1.	CEPII
Trade	Bilateral gross imports and exports (1000 US\$)	United Nations Comtrade Database
Urbanisation rate	Urban population (% of total)	WBDI
Marine protected area	Terrestrial and marine protected areas (% of total territorial area)	WBDI
Terrestrial protected area	Terrestrial protected areas (% of total surface area)	WBDI
RCA and NRCA	Calculated using International tourism, receipts (current US\$), Exports of goods and services (current US\$), Gross Domestic Product (current US\$)	WBDI

The data set, therefore, contains 24 countries' bilateral tourism flows with 24 countries for a period of 10 years (from 2001 to 2010). This provided a panel of 6 000 observations. However, tourist arrivals data is not always captured for all countries, given that only the main origin countries are listed separately in the arrivals statistics. The remaining arrivals are often categorised as "other African countries". This created some 0's in the arrivals data, which may indicate either zero arrivals, or very low arrival numbers (not significant enough to list separately). Altogether 3 500 of the arrivals data were zero in the panel, which significantly reduces the panel when estimations methods, that do not control for missing observations, were used.

5.6.3 Estimating methods

The three most common methods to estimate linear panel regression models are: (i) Pooled ordinary least squares (OLS); (ii) Fixed effects (FE-OLS); and (iii) Random effects. The first method assumes that there are no differences in cross sections (i.e. countries) and therefore estimates a common constant (β_0) for all countries. The fixed effect method (which is similar to the LSDV method) allows the constant or intercept to differ for each cross-section by introducing a dummy variable for each country. The third method, random effects, assumes that differences between cross-sections are not fixed, but random. The intercept is therefore estimated as a constant together with a random variable for each cross section (Asteriou & Hall, 2016).

The pooled method with the assumption of 'no country differences', has the most stringent assumption and only holds for panels with very homogeneous members. The choice between fixed effects and random effects as estimation methods was placed on the Hausman test. The null hypothesis of the test indicates that the random effects estimator is consistent and efficient. Rejection of the null hypothesis, therefore, indicates that the fixed effects deliver more reliable estimates of the parameters (Asteriou & Hall, 2016).

The occurrence of zero tourism flows presents problems for log-linear estimations, where procedures such as the Heckman two-step estimation and the Poisson pseudo-maximum likelihood (PPML) estimation should/could be used to deal with the zero trade matrix to achieve unbiased and consistent estimations (Cipollina & Salvatici, 2010:88). The PPML method was applied in this research as it addressed the two broad dimensions of problems with gravity model estimation. The first dimension is concerned with the error term, while the second focusses on the degree of model structure. The PPML method is preferred as it continues estimations as well as its robustness to identify patterns of heteroscedasticity (first dimension errors) and measurement errors (second dimension errors) (Fally, 2015:76). The

PPML estimator provides consistent estimations of the original non-linear model with various beneficial properties for instance: (1) Consistency in the presence of fixed effects (entered as dummy variables in OLS); (2) Observable trade values that are zero (which is dropped from OLS because logarithms of zero are undefined); (3) Interpretation patterns are closely related to that of OLS, however the dependent variables in PPML are specified in levels (exports) rather than logarithms, while the independent variables are still considered as elasticities (United Nations Economic and Social Commission for Asia and the Pacific [UNESCAP], 2013:52). Silva and Tenreyro (2006:651) show that the distance coefficient is smaller when estimating gravity models by applying PPML compared to fixed effects. In this research study, all estimations were done using STATA 14.

5.7 Results

The initial estimations using the traditional linear methods described above are firstly discussed together with the Hausman test result. The remainder of the trade models, i.e. the gravity model, Linder's model which revealed comparative advantages, and Heckscher-Ohlin's model results, follow the initial estimation discussion.

5.7.1 Initial estimations

The basic specification, without any dummy variables were first of all estimated using pooled OLS, fixed effects and random effects. The results of the estimations are shown in Table 5.6. The models provide the results of the common linear methods that were applied in panel estimation, and from these specifications exclude any controls for country similarity (i.e. the various dummy variables in Equation 5.6).

Table 5.6: Results of the simple linear estimation techniques

	(1)	(2)	(3)
	Pooled OLS	Fixed Effects	Random Effects
_cons	-4.941*** (1.204)	-52.02*** (8.628)	-9.046** (2.885)
lngdppc_d	0.674*** (0.0313)	0.917*** (0.191)	0.732*** (0.0689)
lngdppc_o	0.643*** (0.0309)	0.235 (0.197)	0.663*** (0.0736)
lnpop_d	0.485*** (0.0514)	3.214*** (0.476)	0.687*** (0.117)
lnpop_o	0.510*** (0.0340)	0.0655 (0.427)	0.596*** (0.0854)
lnprice	-0.198 (0.134)	-0.0503 (0.0711)	0.139** (0.0520)
Indist	-1.788*** (0.0542)		-1.884*** (0.153)
MRT	4.21e-10*** (8.02e-11)	-4.38e-11 (6.22e-10)	2.37e-10 (2.03e-10)
Intrade	0.0546*** (0.0148)	0.0143 (0.00944)	0.0174 (0.00926)
N	2019	2019	2019
R-sq	0.516	0.323	

Standard errors in parentheses; * p<0.05; ** p<0.01; *** p<0.001

In general, the results were as expected, with GDP per capita of both the origin ($_o$) and destination ($_d$) countries positive and significant as well as the respective population variables. Furthermore, distance is negative and significant. This is in line with the gravity model prediction. The price variable is negative (as it should be) but not significant in the pooled OLS and fixed effects models, but is positive and significant when random effects are used. No consistency was found in the multi-lateral resistance term (MRT) between the estimation techniques.

It is evident that this specification includes the variable “Intrade”, which represents total bilateral trade flows between the origin and destination countries at time t . This variable is often included in tourism models since there is an expected relationship between tourism and trade (see Santana-Gallego *et al.*, 2010). It is generally expected that an increase in trade is associated with an increase in tourism, and this positive effect is also evident in the results of the estimations in Table 5.6. Yet, the coefficient is only significant when pooled OLS is used. Santana-Gallego *et al.* (2016b) indicate that there might be endogeneity due to the link between tourism and trade and advise that trade should enter the equation as a lagged variable. Considering 2015's trade flows, the coefficient remains insignificant, and therefore the models are estimated using the contemporaneous trade variable and no trade variable as a robustness check.

To choose the correct specification, the Hausman test was conducted. The chi-square statistic was 36.91, and the null hypothesis can be rejected with 99% certainty ($\chi^2 = 36.91$, $p = 0.0013$). Therefore, the null hypothesis confirming random effects are consistent and efficient was rejected, and the remainder of the models were estimated by applying fixed effects (or the LSDV estimator).

5.7.2 Gravity model results

Based on the results of the initial estimations, the gravity model, as specified in Equation 5.5 was estimated by applying the least square dummy variable (LSDV) approach as well as PPML. With the LSDV approach, the regression was estimated by means of OLS but included both country fixed effects and year fixed effects. The “robust” estimation option was also chosen for more robust standard errors. Therefore, the LSDV estimates included all the variables involved in the fixed effect estimation, but also other dummy variables that cannot be estimated through fixed effects. These variables included the cultural and physical proximity dummies specified in Equation 5.6. The results are indicated in columns (1) and (2) of Table 5.7, with the only difference the inclusion and exclusion of trade as an independent variable.

Table 5.7 Results of the Gravity Model

	(1)	(2)	(3)	(4)	(5)	(6)
	LSDV	LSDV	LSDV	LSDV	PPML	PPML
_cons	-58.46*** (16.99)	-39.78** (14.46)	-47.68*** (14.07)	-32.27** (12.05)	-10.45 (29.38)	6.395 (32.53)
lngdppc_d	1.115*** (0.304)	0.836*** (0.251)	1.115*** (0.304)	0.836*** (0.251)	2.879*** (0.573)	2.142*** (0.510)
lngdppc_o	0.286 (0.351)	0.0758 (0.284)	0.286 (0.351)	0.0758 (0.284)	0.0444 (0.607)	0.103 (0.518)
lnpop_d	3.730*** (0.885)	3.123*** (0.732)	3.730*** (0.885)	3.123*** (0.732)	0.444 (2.178)	-0.414 (2.337)
lnpop_o	0.296 (0.367)	0.0967 (0.292)	0.296 (0.367)	0.0967 (0.292)	0.170 (0.608)	0.279 (0.517)
lnprice	-0.118 (0.140)	-0.129 (0.116)	-0.118 (0.140)	-0.129 (0.116)	-0.546* (0.256)	-0.0388 (0.215)
Indist	-2.098*** (0.251)	-2.080*** (0.239)	-2.098*** (0.251)	-2.080*** (0.239)	-2.240*** (0.386)	-2.262*** (0.383)
MRT	8.23e-12 (6.84e-10)	-4.17e-10 (6.09e-10)	8.23e-12 (6.84e-10)	-4.17e-10 (6.09e-10)	-1.33e-09 (1.15e-09)	-1.29e-09 (9.91e-10)
Intrade	-0.00813 (0.0213)		-0.00813 (0.0213)		-0.0521* (0.0244)	
Contig	1.462** (0.444)	1.457*** (0.419)	1.462** (0.444)	1.457*** (0.419)	1.460** (0.506)	1.385** (0.536)
comlang_ethno	0.919*** (0.188)	0.956*** (0.182)	0.919*** (0.188)	0.956*** (0.182)	0.256 (0.287)	0.0741 (0.285)
Comcol	0.0026*** (0.0004)	0.0026*** (0.0004)	0.0026*** (0.0004)	0.0026*** (0.0004)	0.0025*** (0.0003)	0.0026*** (0.0004)
llc			2.574* (1.058)	2.639** (0.872)		
n_africa			1.176 (1.367)	-7.505* (3.038)		
w_africa			-3.493*** (0.880)	-2.828*** (0.715)		
s_africa			0.934 (1.864)	2.040 (1.524)		
e_africa			2.210* (0.906)	1.642* (0.727)		
N	2019	2280	2019	2280	4305	5300
R-sq	0.849	0.856	0.849	0.856	0.954	0.948

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

To test the robustness of the results found in the baseline model (columns (1) and (2)), additional dummy variables were considered in columns (3) and (4). These included whether the destination country was landlocked (LLC), as well as the region of the destination country (with Central Africa as the control group). Furthermore, the robustness of the LSDV estimations were also tested using the PPML estimator (country and year dummy variables were also included in the PPML estimations to control for country differences and business cycle effects). The results are indicated in columns (5) and (6) of Table 5.7. Again, the only difference between (5) and (6) is the inclusion of total trade as an independent variable. It is evident from Table 5.7 that the R-squared was very high with more than 84% of the variance explained, as is typical of gravity models. It is also noteworthy that the LSDV estimator declined significantly in observations (N) due to the zeros in the tourist arrivals data. This is corrected in the PPML estimations (compare 2 019 to 5 300 observations) which control for zero observations.

In general, the results of the gravity model is in line with theory, i.e. the mass variables, GDP per capita and total population are positive although only the destination variables are significant. The distance variable is negative and significant in all the estimated results. This confirms the gravity model in explaining tourism flows within the African continent. The results were quite robust and did not change significantly when more dummy variables were added or when the PPML estimator was utilised. Concerning the other variables, it is evident that the relative price variable is negative in all specifications, but significant, although only in the PPML estimation. Furthermore, trade is insignificant in explaining tourism flows (except for the PPML estimation) and also negative. This is counter-intuitive and may be attributed to a lack of reliable trade statistics in African countries. Similar to the initial estimation, the MRT is also very small and insignificant in explaining tourism flows.

The dummy variables indicate that sharing a common border has a strong positive and significant influence on tourism between the origin and destination country. Likewise, cultural proximity is clearly a significant determinant of tourism, with common ethnic language being positive and significant in all the LSDV estimations. The influence of colonisation is also very clear with countries that used to be colonised by the same country experiencing enhanced tourism flows between one another. Contrary to trade models, landlocked destinations experience increased tourism, while the regional dummy variables are robust for East Africa and West Africa. While East African destinations experience higher tourist arrivals from all origins compared to Central Africa, and West Africa destinations, both central and western Africa experience lower tourism flows.

The results compare well with findings by Keum (2010:555) which state that the distance and the economic size between origin and destination are the most important variables for the gravity model. This is confirmed by Lorde *et al.* (2015:8) specifying that destination and origin income, destination population and substitute prices are important variables. This also confirms that the gravity model does well in explaining intra-Africa tourism flows. It shows that larger economies in population size, as well as richer economies (in GDP per capita), attract more tourists than smaller and poorer economies. Distance plays a key role, and African tourists tend to travel more to neighbouring countries, countries that were colonised by the same country and where the ethnic language is similar to their own.

5.7.3 Linder's hypothesis results

To test whether Linder's hypothesis can be used to explain intra-Africa tourism, the same gravity model, as specified in Equation 5.6, was used and the various Linder variables (specified in Equations 5.9-5.12) were included separately. The results are indicated in Table 5.8. The first four columns (1 to 4) of Table 5.8 indicate the results of the LSDV estimations and the last four columns (5 to 8) the PPML estimations. Only the results that exclude the trade variable are presented. Nevertheless, if trade as an independent variable had been included, results would not have been altered.

In general, the results of the models in Table 5.8 echo that of Table 5.7 with destination GDP per capita being positive and significant and distance negative and significant in all estimations. The dummy variables; common border, common ethnic language and common coloniser are also still significant in explaining intra-African tourism flows. As expected, these variables are significant, as a result of the reduction in cultural distance, which increase tourism arrivals (Santa-Gallego *et al.*, 2016b:1032).

Concerning the Linder variables, it is evident that all the Linder variables are insignificant, except for the PPML estimation with the ratio of the difference between the urbanisation rates relative to the sum of the urbanisation rate between the origin and destination country. In this instance, the variable is positive and significant at a 5% level. This is contrary to Linder's theory which predicts that countries with similar characteristics (smaller Linder variable) will trade more with one another (travel more to one another). Moreover, Lorde *et al.* (2015:8) also found that the Linder variable had an inverse effect on the level of tourism flow relating to per capita consumption and income levels of origin countries to the Caribbean. However, the similarity between the origin countries' income and the income of the Caribbean region show a convergence, which might have had an influence on the results. This can however not be used as an explanation in the African context.

Table 5.8 Results of the Linder Hypothesis

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	LSDV	LSDV	LSDV	LSDV	PPML	PPML	PPML	PPML
_cons	-40.61** (15.37)	-39.11** (14.78)	-40.71** (14.47)	-40.37** (14.50)	6.312 (35.22)	5.998 (32.90)	11.04 (33.14)	14.37 (33.15)
lngdppc_d	0.818** (0.260)	0.823** (0.254)	0.851*** (0.250)	0.844*** (0.251)	2.142*** (0.499)	2.158*** (0.506)	2.054*** (0.498)	2.006*** (0.489)
lngdppc_o	0.0753 (0.284)	0.0488 (0.285)	0.0772 (0.284)	0.0767 (0.284)	0.103 (0.514)	0.0780 (0.523)	0.0455 (0.547)	-0.0006 (0.552)
lnpop_d	3.174*** (0.800)	3.117*** (0.739)	3.164*** (0.732)	3.149*** (0.734)	-0.408 (2.475)	-0.318 (2.371)	-0.591 (2.321)	-0.712 (2.300)
lnpop_o	0.101 (0.291)	0.0903 (0.292)	0.0986 (0.291)	0.0982 (0.292)	0.279 (0.520)	0.257 (0.518)	0.257 (0.540)	0.213 (0.545)
lnprice	-0.128 (0.116)	-0.115 (0.119)	-0.131 (0.116)	-0.130 (0.116)	-0.0390 (0.225)	-0.0423 (0.215)	-0.0410 (0.215)	-0.0473 (0.215)
Indist	-2.080*** (0.240)	-2.069*** (0.238)	-2.072*** (0.241)	-2.074*** (0.241)	-2.261*** (0.381)	-2.316*** (0.410)	-2.363*** (0.399)	-2.384*** (0.413)
MRT	-4.25e-10 (6.13e-10)	-4.27e-10 (6.09e-10)	-4.11e-10 (6.09e-10)	-4.15e-10 (6.09e-10)	-1.29e-09 (9.91e-10)	-1.24e-09 (1.01e-09)	-1.40e-09 (9.59e-10)	-1.45e-09 (9.39e-10)
contig	1.462*** (0.423)	1.450*** (0.422)	1.443*** (0.424)	1.447*** (0.421)	1.385** (0.528)	1.367* (0.558)	1.364* (0.560)	1.333* (0.572)
comlang_ethno	0.954*** (0.183)	0.977*** (0.182)	0.957*** (0.183)	0.957*** (0.183)	0.0743 (0.294)	0.0610 (0.291)	0.108 (0.270)	0.100 (0.270)
comcol	0.0026** * (0.0004)	0.0026** * (0.0004)	0.0026** * (0.0004)	0.0026** * (0.0004)	0.0026** * (0.0003)	0.0026** * (0.0004)	0.0027** * (0.0004)	0.0027** * (0.0004)
linder1	<0.001 (<0.0001)				<0.001 (<0.0001)			
linder2		-0.568 (0.343)				-0.358 (0.417)		
linder3			-0.0036 (0.0064)				0.0188 (0.0102)	
linder4				-0.238 (0.466)				1.668* (0.824)
N	2280	2280	2280	2280	5300	5300	5300	5300
R-sq	0.856	0.857	0.856	0.856	0.948	0.949	0.951	0.952

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

Since Linder 1 and 2 are positive, it indicates that large differences exist between countries' demand characteristics and tourism arrivals (Keum, 2010:554). This is also supported by the positive and significant Linder 4, which addresses the absolute value of urbanisation as a ratio of the sum of urbanisation rate. It indicates that less urbanised countries tend to travel to more urbanised countries, and vice versa. Both Keum (2010) and Lorde *et al.* (2015) revealed that Linder's hypothesis does not explain tourism flows, and this study confirms the same results for Africa.

5.7.4 Revealed comparative advantage results

The results of the revealed comparative advantage (RCA) and normalised revealed comparative advantage (NRCA) for every African country were calculated. The calculation was completed by using the tourism receipts and export data from the world development indicators. It therefore represents not only African receipts from tourism, but also tourism RCA taken as a whole. Table 5.9 presents the results for the gravity model specification with the RCA plus the NRCA. It should be noted that that NRCA was determined on total tourism arrivals, while the models determined the bilateral flows. It is therefore expected that there is a correlation between the NRCA and the dependent variable, however, the correlation is not perfect. Additionally, the NRCA has small values compared to the RCA due to the normalisation, resulting in large coefficient differences.

The results in Table 5.9 indicate similar results as the previous models in terms of the gravity specification, with destination GDP per capita and population variables as positive and significant determinants of tourism arrivals. Distance was again negatively related to tourism arrivals, while the common country characteristics were positive and significant like the previous models' results. The RCA was positive, as expected, but insignificant, while the NRCA was positive and significant for both LDSV and PPML estimations. The RCA results imply that countries that show a RCA for worldwide tourism receipts also benefit most from African tourism. However, the NRCA results indicate that the combination of capital, labour, natural resources and other resources have a positive and significant influence on arrivals, and are more significant for the LSDV estimation. This implies that countries endowed with more natural resources will increase the relative or comparative advantage in exporting tourism services, because NRCA is a function of capital, labour, natural environment and a collection of vectors of other possible sources (Du Toit *et al.*, 2010:8).

Table 5.9: Revealed comparative advantage results²

	(1)	(2)	(3)	(4)
	LSDV	LSDV	PPML	PPML
_cons	-39.77** (14.42)	-51.29*** (14.16)	6.935 (34.49)	5.835 (32.45)
lngdppc_d	0.880*** (0.252)	1.010*** (0.251)	2.172*** (0.501)	2.135*** (0.479)
lngdppc_o	0.0801 (0.283)	0.171 (0.274)	0.114 (0.504)	0.229 (0.476)
lnpop_d	3.092*** (0.734)	3.201*** (0.726)	-0.500 (2.461)	-0.605 (2.301)
lnpop_o	0.101 (0.291)	0.192 (0.282)	0.289 (0.501)	0.406 (0.473)
lnprice	-0.129 (0.116)	-0.0560 (0.121)	-0.0511 (0.207)	0.0304 (0.189)
Indist	-2.080*** (0.240)	-2.077*** (0.239)	-2.261*** (0.383)	-2.261*** (0.383)
MRT	-4.03e-10 (6.09e-10)	1.41e-09 (7.27e-10)	-1.07e-09 (1.01e-09)	-3.51e-10 (1.07e-09)
contig	1.457*** (0.419)	1.459*** (0.418)	1.385** (0.536)	1.385** (0.536)
comlang_ethno	0.956*** (0.182)	0.951*** (0.182)	0.0742 (0.285)	0.0739 (0.285)
comcol	0.00266*** (0.0004)	0.00266*** (0.0004)	0.00261*** (0.0004)	0.00261*** (0.0004)
rca	0.0322 (0.0353)		0.106 (0.0636)	
nrca		2351.4*** (523.4)		797.4* (401.4)
N	2280	2280	5300	5300
R-sq	0.856	0.856	0.950	0.950

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

² NRCA reveals small values compared to RCA resulting 'n large coefficient differences

5.7.5 The Heckscher-Ohlin results

The HO results are calculated using the factor endowment ratios between countries. Referring to the ratio between destination and origin country population, as a proxy for available labour work force, `pop_dif` is specified. The differences in natural resource endowments between destination and origin country are proxied by the ratio of terrestrial protected area and marine protected area between the two countries, specified as `terra_dif` and `marine_dif`.

The results in Table 5.10 mean that the basic gravity specifications are maintained, especially with regard to GDP per capita, population distance and common characteristics. The inclusion of the HO variables therefore does not influence the main gravity results, indicating robustness. Differences in factor endowments, expressed as population differences (`pop_dif`), ratio of marine protected areas (`marine_dif`) and ratio of terrestrial protected areas (`terra_dif`) were included separately in the estimations. A larger ratio implies larger differences in endowments and therefore a positive sign was expected, which would signify increased tourism flows. The results indicate that `terra_dif` in the LSDV estimation is positive, but not significant, and negative in the PPML estimation. The remaining variables (`pop_dif` and `marine_dif`) are both negative, but `pop_dif` is significant in LSDV, and `marine_dif` is significant in the PPML estimation. The results are not as expected and indicate that tourism resource endowment may not be a reason for intra-African tourism. This confirms the notion that African tourists' travel patterns are less reliant on natural tourism resources of other African countries, and by preference more dependent on cultural and geographical proximity as well as the development of the destination country.

Table 5.10: Heckscher-Ohlin results

	(1)	(5)	(7)	(9)	(13)	(15)
	LSDV	LSDV	LSDV	PPML	PPML	PPML
_cons	-57.32*** (17.03)	-59.29*** (17.01)	-58.33*** (17.00)	-10.38 (29.37)	-7.050 (29.01)	-9.632 (29.31)
lngdppc_d	1.104*** (0.304)	1.125*** (0.304)	1.114*** (0.304)	2.880*** (0.574)	2.828*** (0.569)	2.872*** (0.573)
lngdppc_o	0.282 (0.350)	0.278 (0.350)	0.287 (0.352)	0.0442 (0.606)	-0.0342 (0.611)	0.0264 (0.606)
lnpop_d	3.715*** (0.886)	3.771*** (0.884)	3.725*** (0.885)	0.446 (2.177)	0.381 (2.166)	0.449 (2.175)
lnpop_o	0.252 (0.366)	0.291 (0.367)	0.297 (0.367)	0.162 (0.608)	0.118 (0.613)	0.155 (0.608)
lnprice	-0.117 (0.141)	-0.126 (0.141)	-0.117 (0.141)	-0.546* (0.256)	-0.549* (0.257)	-0.544* (0.255)
Indist	-2.093*** (0.243)	-2.089*** (0.246)	-2.101*** (0.255)	-2.239*** (0.386)	-2.252*** (0.361)	-2.253*** (0.365)
MRT	1.89e-11 (6.91e-10)	2.02e-11 (6.89e-10)	2.58e-12 (6.83e-10)	-1.33e-09 (1.15e-09)	-1.42e-09 (1.15e-09)	-1.36e-09 (1.16e-09)
Intrade	-0.0144 (0.0211)	-0.00361 (0.0221)	-0.00937 (0.0216)	-0.0527* (0.0246)	-0.0561* (0.0249)	-0.0549* (0.0247)
contig	1.497*** (0.437)	1.419** (0.442)	1.470*** (0.438)	1.463** (0.506)	1.417** (0.474)	1.435** (0.478)
comlang_ethno	0.938*** (0.188)	0.902*** (0.192)	0.923*** (0.189)	0.257 (0.286)	0.180 (0.287)	0.205 (0.286)
comcol	0.00266*** (0.000399)	0.00268*** (0.000407)	0.00269*** (0.000414)	0.00259*** (0.000375)	0.00260*** (0.000359)	0.00261*** (0.000363)
pop_dif	-0.00266* (0.00107)			-0.00272 (0.00167)		
marine_dif		-0.0184 (0.0201)			-0.107* (0.0477)	
terra_dif			0.00473 (0.0146)			-0.0785 (0.0626)
N	2019	2019	2019	4305	4305	4305
R-sq	0.851	0.850	0.849	0.954	0.953	0.954

Significance =* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parenthesis.

5.8. Findings and implications

The results from this Chapter offer interesting insights into the determinants that influence tourism arrivals to Africa from other African countries. Intra-African travel has to date and to the authors' knowledge received little empirical investigation. This is partly due to a lack of available data, as well as the problems associated with cross-border trade on the continent. Since Africa is widely inaccessible to other Africans, this research contributes to a greater understanding of the determinants that attract African travels within Africa.

Firstly, the gravity results confirm that mass variables (GDP per capita and total population), and distance (travel costs) explain tourism flows. Trade was insignificant in explaining tourism flows, which could be due to Africa's lack of economic integration and intra-regional trade. As expected, sharing a common border, common ethnic language and common coloniser contributed to increased arrivals. Hence, countries that have decreased cultural distance would, presumably, have the same taste and preferences for certain products and services. This is greatly beneficial for the tourism industry, as one country may evaluate the tourism demand of the domestic market, which could then with little alteration, attract similar African tourists that share the same ethnic language and who border the host country.

Contrary to trade models, landlocked destinations experience increased tourism, while East African countries are the major gainers and West African countries presenting mainly deterioration in tourism. This could be due to the East African region's open-border policies within the trade bloc. These results imply that the gravity model is useful in determining travel flows in Africa, and with more substantial data, more robust estimations might be performed.

Furthermore, since trade was insignificant in explaining tourism flows, it might be beneficial to re-evaluate trade policies within regional economic communities (REC's), which influences the costs associated with trade barriers. Regional economic integration could possibly lead to enhanced competitiveness, prevent conflicts and consolidate economic and social reforms. This is especially true for countries that share common ethnic languages and common borders, as the cultural distance is not a deterrent. Another benefit from the results implies that landlocked countries experienced increased arrivals. This suggests that landlocked countries for example have difficulties to export due to a lack of harbours. In this regard the landlocked countries might have agendas to integrate more successfully with neighbouring countries to attract tourists from these countries. The higher degree of integration makes it possible for trade and tourism to flourish, and subsequently, lead to enhanced economic activity and growth.

Secondly, Linder's hypothesis mostly confirms the gravity model results for mass variables, distance, common border, language, and coloniser. The Linder variables offer interesting insight and contradict the theory since countries with similar characteristics were expected to trade/travel more with one another. However, Linder 1 and 2 indicate that arrivals are inclined to travel to countries that have higher GDP per capita, while Linder 4 indicates that less urbanised countries travel to more urbanised countries. Linder's hypothesis implies that countries with similar demand structures will trade more with and travel more to one another. However, the results for intra-African tourism do not confirm this notion. It indicates that countries with vastly different demand structures experience increased tourism flows. Larger (more advanced/affluent) African economies attract more arrivals, and subsequently these affluent African countries are presumably better developed and urbanised. Greater development often mitigates costs, as more options are available and opportunities are present. Therefore, less affluent African countries have the opportunity to learn how to diversify economic growth by enhancing trade and tourism to ensure sustainability and create competitive advantage.

Thirdly, the comparative advantage theory states that countries that specialise in producing a product more (cost) efficiently, with fewer opportunity costs, will increase economic welfare by focussing production on that product and exporting it to other countries. The results also indicate that countries already benefiting from tourism are also more popular destinations for Africans. Tourism orientated countries are successful due to the existing tourism development. Therefore, African countries that have the ability to produce tourism offerings should invest in branding, and the marketing of the tourism offerings to neighbouring countries to enhance the domestic tourism market, while still attracting foreign (non-African) tourists with an appropriate and dedicated marketing strategy.

Lastly, the HO results are discussed. The HO results for population differences (*pop_dif*) and the resource endowment differences (*terra_dif* and *marine_dif*) contradict the HO theory. These results were insignificant with regard to ratio size and the signs of the coefficients. This could indicate a lack of quality data, or that the African countries were too similar in size (population) and resource endowment.

5.9 Conclusion

From a volatile history to present day challenges, African countries strive to develop and grow economically. Trade theories developed by Western civilisations in developed countries, to explain how trade flows occur, are extremely useful to identify the possibilities in developing African countries. However, traditional trade theories are inept to holistically account for

developing countries. The use of trade theories in tourism flows also identifies opportunities for African countries to expand and grow the tourism industry. A major opportunity exists in regional economic integration through trade. Independence, strived for by many Africans, should not mean independence from one another, but unity and cooperation will contribute to a sustainable and trade barrier free Africa, where the movement of people will contribute to the success of the continent. A possible first step to integration could be tourism, especially in countries where the cultural distance is less of a deterrent. Transport infrastructure development in Africa could also be an opportunity to reduce distance and travel costs, when implemented sustainably, and used economically for trade. In terms of the comparative advantage, it is expected that more sophisticated tourism destinations, will benefit greatly. Therefore as regions develop more sophisticated tourism industries, a re-evaluation of the growth potential is needed to ensure that destinations and regions continually provide and supply sophisticated tourism services and products. Moreover, less sophisticated regions might be able to set benchmarks to develop and mature tourism offerings, based on tourism abundant regions. A prime example of regional economic integration in Africa that also contributes to higher tourism arrivals is East and West African countries due to the visa openness in these two regions. On the continent, eastern Africa (45%) and western Africa (30%) have the highest visa openness (African Development Bank, 2016:1). Countries and regional economic communities (REC's) need to adapt current legislation and policies to ensure that: (1) Countries within RECs should be visa free; (2) Greater cooperation between RECs is necessary to facilitate trade and tourism; (3) A universal African visa/passport system be implemented to ensure that all Africans have freedom of movement. Growth in Africa is attainable through the creation of dedicated legislation and policies that allow for barrier-free trade on the continent. It should also facilitate the movement of people to diversify the intellectual diversity across the continent. Finally, it should contribute to sustainable economic growth that supports intra-African travel as a catalyst for development.



CHAPTER 6: AN ALMOST IDEAL DEMAND SYSTEM ON OUTBOUND AFRICAN TOURISM

"Knowledge without wisdom is like water in the sand" - Guinean proverb

6.1 Introduction

Each of the previous two chapters focused on a certain type of tourism activity in Africa. Chapter 4 focused on inbound tourism to Africa; and Chapter 5 concentrated on African tourism within the continent (intra-African). This Chapter focuses on outbound tourism from Africa. Outbound tourism refers to tourism activity outside the African continent, thus referring to Africans travelling internationally (Divisekera, 2013:36). In this regard, it is essential to establish to which destinations Africans travel, as well as determine the key destinations for African tourists. Also, if Africa starts to show increased economic growth rates, and welfare begins to increase, it has to be predicted which continents would benefit the most. These are some of the considerations that Chapter 6 aims to address. The vast and growing literature on tourism demand has to date received limited attention from an outbound tourism perspective. This could be due to the notion that the outbound market is perceived as being less lucrative, or that data is more difficult to obtain (Seetaram, 2012:999).

To determine the tourism demand of African countries for other international destinations, as well as the role of price and expenditure elasticity in the country of reference, the Almost Ideal Demand System (AIDS) is the preferred methodology in the tourism demand literature. The AIDS model is a very effective tool in assessing the economics of tourism as it examines the entire set of price and expenditure elasticities while addressing the sensitive nature of tourism demand (Durberry & Sinclair, 2003:927). Song and Li (2008:206-209) identified recent (2000-2007) studies on tourism demand (121 studies) with different modelling and forecasting methods, of which ten studies used a variation of the AIDS model such as dynamic/static/linear AIDS. The remainder of this Chapter is structured to review the concepts of demand and supply. The next sections follow with a literature overview of the AIDS model, an analysis of the data and methodology, the results, findings and implications, and then the conclusions.

6.2 Demand

In economics, demand is often related to the law of demand, which states that in all things being equal (*ceteris paribus*), as the price of a good or service increases, the quantity of the good which is demanded will decrease, and vice versa. The law of demand established the inverse relationship and elasticity between price and quantity (Mankiw, 2011:67). Microeconomic demand

theory states that demand (want or need) also refers to the ability to pay for products and services. According to Taylor and Weerapana (2010:86), the price elasticity of demand, measures the sensitivity of the demanded quantity of goods and services relative to the price of the goods and services. This is shown in Equation 6.1.

$$\text{Price elasticity of demand} = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}} \quad [6.1]$$

Naturally, differences occur when comparing individual vs. market demand. Market demand is the sum of all individual demand. The market demand at a certain price is the sum of individual demand (Mankiw, 2011:68). In this context, individual demand stems from countries/continents, while market demand includes the globe. Using the USA as an example, one African's demand to travel to the USA would relate to individual demand, while global (all countries) demand for travel to the USA is a market demand. Moreover, other variables to consider include income, the price of related goods/services, taste, and expectations (Mohr, 2012:52). Behavioural economics, an economic analysis method that applies psychological understandings to explain behaviour and decision-making, also stresses the importance of having adequate time to demand certain products/services. Tourism demand is reliant on an individual's time to travel, ability (finances) to travel, and factors relating to price, taste, and preferences (Samuelson & Nordhaus, 2010:89).

Certain determinants contribute to tourism demand, to try and explain why some people have the propensity to participate in tourism. Tourism demand determinants (income and price) and demand elasticities (the sensitivity in the changes of income and price) contribute to understanding tourism demand (Vanhove, 2012:61). Similar to demand for other goods, tourism demand makes use of the economic factors of income, time and price to determine the demand for tourism, in this case, tourism arrivals from Africa. Moreover, the price of competitive or complementary offerings may also influence tourism demand, resulting in cross-elasticity:

$$E_{cr} = \frac{\Delta D_i / D_i}{\Delta P_j / P_j} \quad [6.2]$$

Where E_{cr} = cross elasticity, ΔD = change in demand, and ΔP = change in the price of a complementary/substitutable product.

There are two ways of looking at that same problem, namely how to obtain what we want (utility) with the limitations (budget) that we have. A appropriate way to describe the Marshallian and Hicksian demand curves is the; "Two sides of the same coin". According to Tucker (2011:74), Alfred Marshall considered whether value was governed by utility (demand) or cost of production (supply). Furthermore, this expressed consumption duality, where budgets are fixed and utility is

maximised. On the other hand, John Hicks proposed that a target level of utility should be set and costs should be minimised, expressed as demand duality (Tucker, 2011:78). The difference between the Marshallian demand and Hicksian demand is that; Marshallian demand only indicates the relationship between the price of goods and the quantity demanded, while the Hicksian demand indicates the relationship between the price of goods and the quantity demanded, assuming that the price of other goods and the level of utility remain constant (Alston & Larson, 1993:766).

Autor (2010:15) states that the Marshallian demand expresses conventional market and individual demand curves. This is done by holding income (I) and all other prices (p_y) constant when determining how the quantity demanded of a good will change when its price (p_x) changed. Marshallian demand implicitly combines income and substitution effects to deliver “net” demands, while Hicksian demand is composed solely from substitution effects (Autor, 2010:16). Hicksian demand holds consumer utility constant when determining how the quantity demanded of a good change with its price. Therefore, the Marshallian (Equation 6.3) and Hicksian (Equation 6.4) demand functions are expressed as follows:

$$dx(px, py, \bar{I}) \quad (6.3)$$

$$hx(px, py, \bar{U}) \quad (6.4)$$

The presence of the $\bar{U}$ as a parameter in the Hicksian demand function indicates that this hold consumer utility constant on the same indifference curve as price changes. More on the Hicksian and Marshallian demand elasticities are provided in section 6.6.3. The following section investigates the use of the Almost Ideal Demand System (AIDS) in tourism to determine tourism demand. The Hicksian and Marshallian demand perspective is used in this Chapter, to address the relationship between the price and the quantity of tourism demand for international destinations. The AIDS approach is attractive in this framework because it is based on utility maximisation (Muchapondwa & Pimhidzai, 2008:3). The use of a demand system is also practical in determining how budgets are allocated to investigate consumer spending.

6.3 Almost Ideal Demand System and tourism

Tourism demand research has received much attention, with various methods employed to analyse the demand for destinations. Since various methods are available in determining tourism demand, the use of the Almost Ideal Demand System (AIDS) model is justified as it allows assessing entire sets of price and expenditure elasticities, given the sensitivities of tourism demand to changes in comparative prices and expenditure (Durbarry & Sinclair, 2003). The use

of the AIDS model to determine tourism demand is a popular technique. Referring to South African tourism demand, Seetanah, Durbarry and Ragodoo (2010:727) state that tourism competitiveness could be better understood by using AIDS models.

The superiority of the AIDS model over other models such as the linear expenditure system, the Rotterdam model and the double logarithmic system, is due to the AIDS model's explicit use of economic theory, and strong theoretical support (Wu, Li & Song, 2012:670). The demand for tourism products and services and the subsequent interaction between the products and services can directly be estimated, and the model allows for cross-price elasticities. The properties of demand can be imposed on a restricted AIDS model, providing the model with more theoretical justification.

The properties of Marshallian demand for a well-behaved system are explained below (Botha & Saayman, 2013:685). (1) Adding up is the first property. The adding up restriction (budget constraint) in microeconomics dictates that the total sum of expenditure elasticities, weighted against the corresponding budget share, must add up to unity (Dorman, 2013:243). Therefore, households spend according to a ratio to satisfy needs. (2) Homogeneity in microeconomics assumes that all households with similar income and composition will face similar expenditure patterns and prices (Levin & Milgrom, 2004:4). (3) Symmetry is the third property of a well-behaved demand system, the influence of choice on household expenditure, dictates that households make consistent choices leading to symmetry. When symmetry is not achieved, inconsistent choices are made, which might lead to negativity since the cost is minimised and utility is maximised (Lechene & Preston, 2011:505). (4) Negativity is another property. In demand literature, negativity refers to systems flexibility when price changes occur. Simply put, the law of demand states that an increase in price usually denotes a decrease in demand (Brenton, 1994:628). For the dependent variable, the expenditure shares of each country are used when determining the static AIDS model, which creates advantages like; (a) estimating the extent of substitution between destination countries (summarised by the cross-price elasticities of demand), (b) flexible functional form, (c) econometric specification derived explicitly from consumer theory, and (d) eases testing for restrictions of the demand elasticity (Belenkiy & Riker, 2013:203).

Moreover the use of the AIDS model includes various benefits for analysis and interpretability for example; (a) easy estimations, (b) it satisfies the axioms of choice exactly, (c) it is flexible while still providing the advantage of being compatible with consumer aggregation, which is useful despite the use of (aggregated) macroeconomic or (disaggregated) household data, (d) it has a specific cost function that corresponds to a well-defined preference structure, (e) homogeneity

and symmetry restrictions are only depending on the parameters which are easily tested, (f) it provides an arbitrary first-order approximation to any demand system, (g) it aggregates perfectly across consumers without invoking parallel linear Engel curves, and (h) it has a functional form which is consistent with household budget data (Taljaard, Alemu & van Schalkwyk, 2004:431).

The majority of tourism-related AIDS model research is based on the Western European travel market (Mello, Pack & Sinclair, 2002; Li, Song & Witt, 2004; Mangion, Cooper, Cortéz-Jimenez & Durbarry, 2012) to various European destinations (Spain, France, Greece, Italy, Portugal, Malta, and Cyprus) making use of linear AIDS (LA-AIDS) models and dynamic AIDS models. Mello *et al.* (2002:518) state that the AIDS model results are “consistent with the properties of homogeneity and symmetry”. This is in accord with the micro-foundations of the AIDS model approach and increases the credibility of the elasticity values. Li *et al.* (2004:148) conclude that “tests for homogeneity and symmetry suggest that the dynamic version of the LA-AIDS satisfies demand theory well”. This is further supported by Mangion *et al.* (2012:1270) who advise that the AIDS model is useful in quantifying tourism policy to strengthen public policymaking.

Previous research also focussed on the travel markets for instance France, West Germany and the UK (Papatheodorou, 1999); Spain (Garín-Muñoz & Amaral, 2000); (Durbarry & Sinclair, 2003); and Italy (Cortés-Jiménez, Durbarry & Pulina, 2009), within Europe. Papatheodorou (1999:629) states that, when using the AIDS model as an econometric analysis procedure, results will be statistically satisfactory and consistent with consumer demand. Garín-Muñoz and Amaral (2000:529) found that the use of the static model revealed income, price, and exchange rate elasticities of tourism arrivals to Spain that was confirmed in the dynamic model. Interestingly, changes in relative effective own price competitiveness, rather than tourist expenditure budgets influence the share of French arrivals in Italy, Spain and the UK, indicating that the destinations are more price sensitive than income sensitive (Durbarry & Sinclair, 2003:937).

Cortés-Jiménez *et al.* (2009:563) point out that the error-correction linear AIDS model, which applies monthly data, is useful in identifying the determinants of tourism demand to understand consumer behaviour. Han, Durbarry and Sinclair (2006:9) estimated that tourism arrivals from the US to France, Italy, and Spain were particularly sensitive to price competitiveness, and state that France and Italy are substitute destinations, as well as Spain and Italy. Moreover, the AIDS model can provide useful insight to policymakers about the sensitivity of tourism demand to changes in price and expenditure. The AIDS model has also been applied in the East with reference to Japanese tourists travelling to China, Hong Kong, Korea, Taiwan, and Thailand. Kuo, Liu and Chen (2014:97) reveal that the dynamic AIDS model with restrictions on homogeneity and symmetry explains the demand for grouped destinations (Asia) concerning relative prices and

real expenditure. Koike and Yoshino (2014:134) inform that for outbound tourism from Japan, the expenditure elasticities indicate that Japanese tourism expenditure results in an increase of Japanese tourism demand in North America, Europe, Asia and Oceania. Own-price elasticities indicated that increases in price and exchange rates will decrease demand from Japanese tourists. Moreover, the cross-price elasticities indicated the sensitivity of demand for each destination, which specifies that a 1% increase in price in Oceania, results in a decrease of 0.966% of Japanese demand for North America, an insignificant change for Europe and 0.621% increase in demand for Asia.

Peng, Song and Crouch (2014:183) investigated the use of different AIDS models in tourism literature and state that: (1) Static linear AIDS (LA-AIDS) models are able to explore and interpret elasticities of the explanatory variables, but still perform poor when forecasting tourism demand due to the lack of co-integration of relationships in the long term and short run dynamics; (2) Dynamic AIDS model is an error-correction form of the AIDS model (EC-AIDS) which is a data-coherent and theoretically consistent model that provides robust estimations and reliable forecasts (Peng *et al.*, 2014:183). Wu, Li and Song (2011:54) reveal that the EC-AIDS model reflects economic systems more accurately than the static AIDS model because of its self-adjusting nature. The results indicate that the EC-AIDS provides insight into expenditure patterns and tourist consumption for Hong Kong inbound tourism. Different consumption behaviour amongst eight source markets (Australia, the UK, the USA, Japan, South Korea, Singapore, Taiwan, and mainland China) were identified. This included the demand for meals outside hotels which was, as an example, more expenditure-elastic in the short-haul markets than in the long-haul markets.

Recently, from a South African perspective, Saayman and Cortés-Jiménez (2013:555) investigated long-haul tourism consumption from France, Germany, the UK and the USA. A linear AIDS model was adopted to evaluate five categories of tourism spending in South Africa (accommodation, travel, food and beverages, recreation and culture, and shopping). The travel and tourism market of South Africa was examined, as well as the use of real effective price and exchange rates. Accommodation spending was found to be the most significant expenditure, while the remaining products were viewed as luxury products due to the elasticity being greater than unity. An increase/decrease in income of tourists will have an almost equal increase/decrease on the spending in South Africa. Increases in expenditure on accommodation was considered to be inelastic, while travelling within the country (transport costs) was considered price elastic, which was also considered substitute products when evaluating the cross-price elasticities (Saayman & Cortés-Jiménez, 2013:556). Destinations for the majority of the travel

markets are mainly European bound, except the case referring to Asian countries, and South Africa. A brief overview of the data is set out in the next section.

6.4 Analysis of current African travel patterns

African outbound travel was assessed, and for this purpose, inbound statistics of Africans to other destinations were obtained from the United Nations World Tourism Organization [UNWTO] for the period from 1995 to 2013. The continents in question included Africa, Asia, Europe, North-America, Oceania, and South-America. In this section Figure 6.1 indicates the total African arrivals globally, as well as, within Africa. It is clear that most Africans travel within Africa, however, international trips abroad have risen steadily over the period.

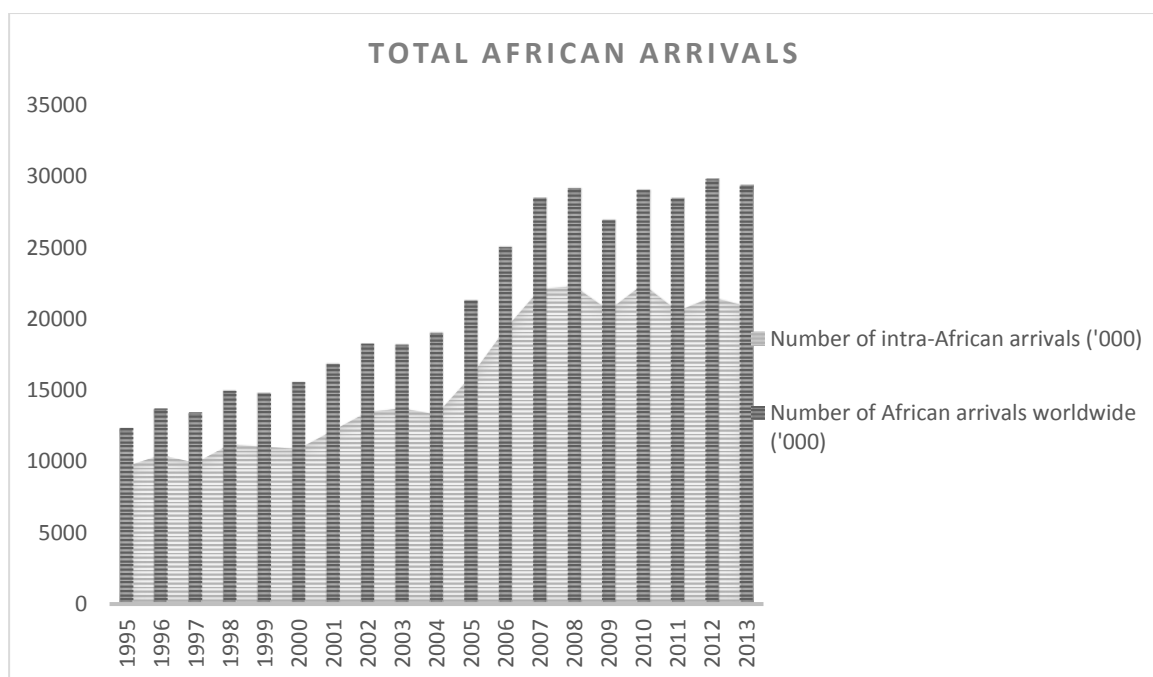


Figure 6.1: Total number of African arrivals

The number of African arrivals are depicted in Figure 6.1, and it clearly indicates that the vast majority of Africans travel within Africa. Within a world view, African travel patterns do change over time. In Figure 6.2 and Figure 6.3 the arrivals are allocated per continent, while in Figure 6.3 Africa is removed from the sample, to indicate the most popular destination continents. Snippets of the data is used by means of a five year interval (1995, 2000, 2005, and 2010) to illustrate how the arrival patterns change. Figure 6.2 indicates that Africa is the preferred destination in all of the interval years, therefore omitting Africa in Figure 6.3 reveals the preferred global destination.

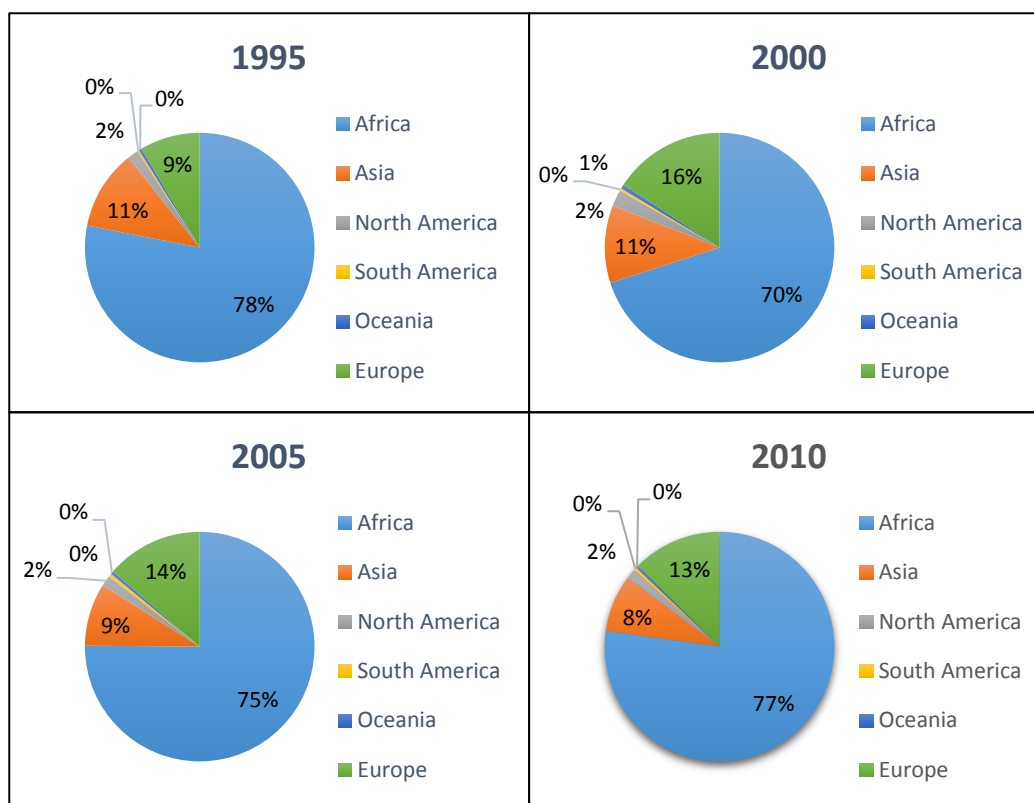


Figure 6.2: Distribution of African arrivals globally

Source: Graphs extracted from UNWTO data

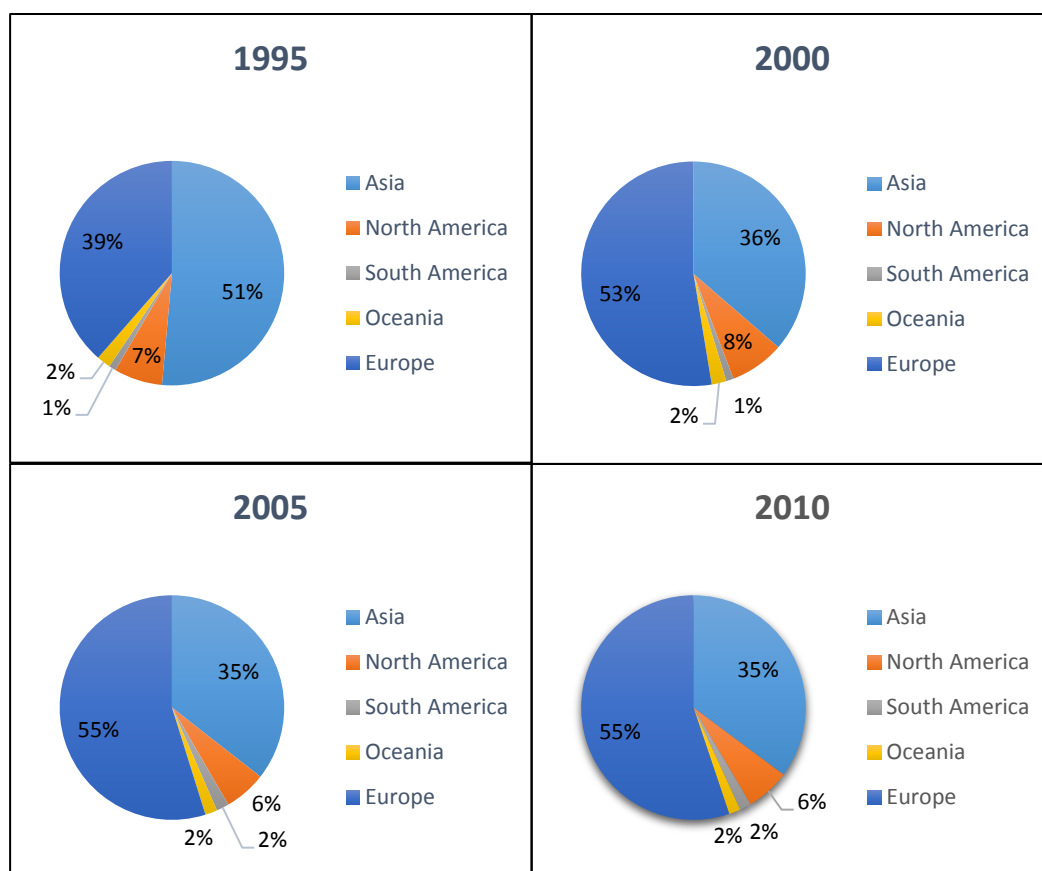


Figure 6.3: Distribution of African arrivals, excluding Africa

Source: Graphs extracted from UNWTO data

As indicated in Figure 6.3 (omitting Africa) during 1995 the majority of Africans travelled to Asia (51%), Europe (39%) and North America (7%). In 2000 the distribution changed with Europe (53%) outranking Asia (36%) and North America (8%). In 2005 and 2010 the distribution looks very similar, indicating that a trend to Europe is forming. In the following figures each continents (1) African arrivals, and (2) country specific destinations are briefly discussed. Africa (Figure 6.4 and Figure 6.5), Asia (Figure 6.6 and Figure 6.7), Europe (Figure 6.8 and Figure 6.9) North America (Figure 6.10 and Figure 6.11) Oceania (Figure 6.12 and Figure 6.13), and South America (Figure 6.14 and Figure 6.15) are illustrated, with the country specific destinations expressed for the interval years (1995; 2000; 2005; and 2010).

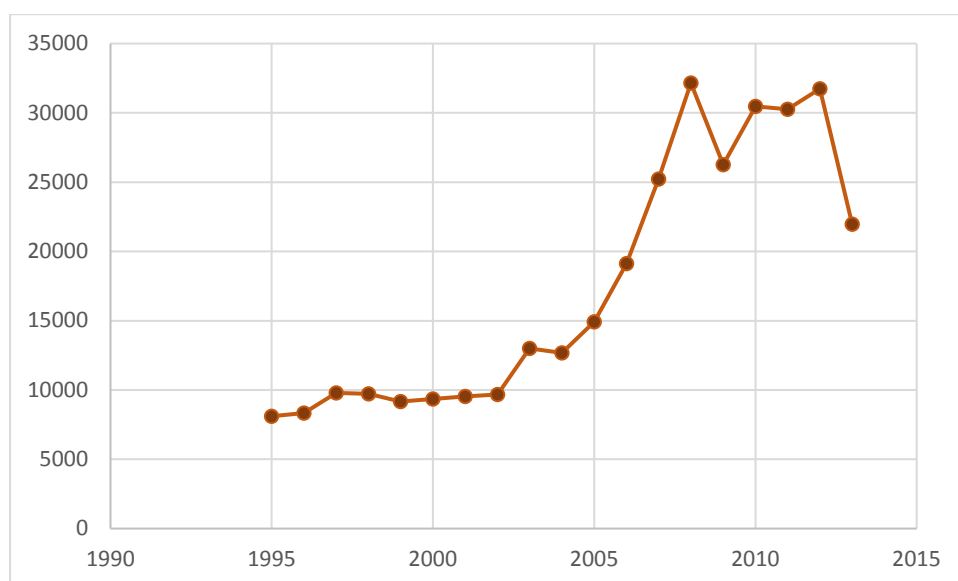


Figure 6.4: Total African arrivals in Africa ('000)

Intra-African arrivals accounted for the largest share of African arrivals compared to any of the other continents (Figure 6.4). Slow growth from 1995 to 2001 is evident, with accelerated growth from 2002 to 2008. The effects of the economic crises can be seen in 2009, and the number of arrivals are decreasing. This could be as result of stringent visa regulations and openness (AFDB, 2016:11).

It is evident from Figure 6.5 that arrivals data to African countries show the following predominant countries (or countries who recorded African arrivals); South Africa, Nigeria, Zimbabwe, Tunisia, and Swaziland. The listed countries are those countries who obtain at least a 1% share of arrivals. With the exclusion of Nigeria, all of the top arrivals countries had the highest visitation in 2000, followed by 1995, indicating that other aspects are deterring travel in more modern times.

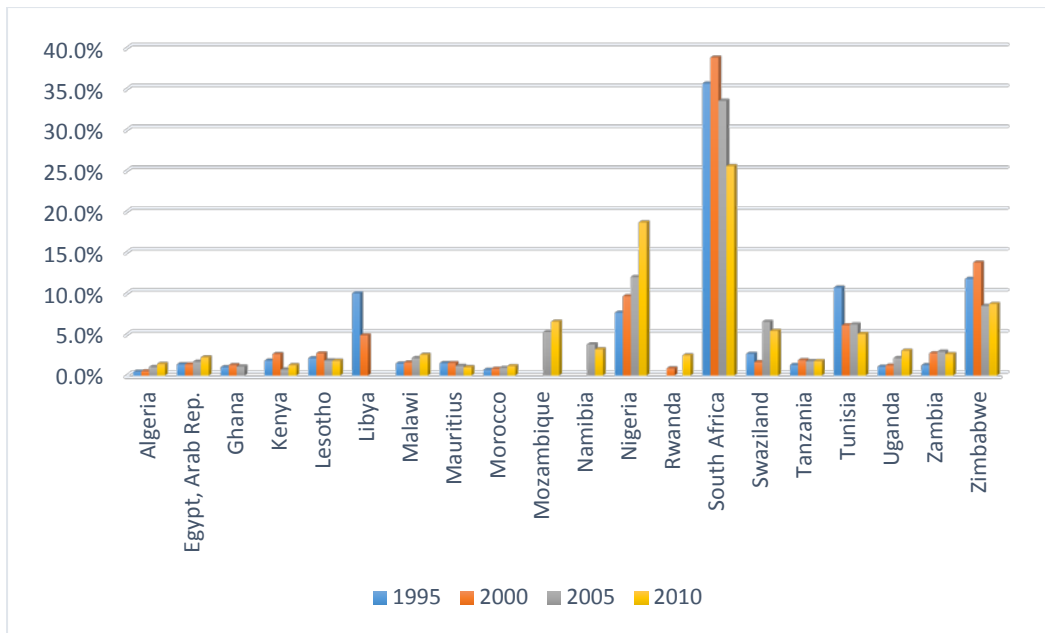


Figure 6.5: African arrivals to African country destinations

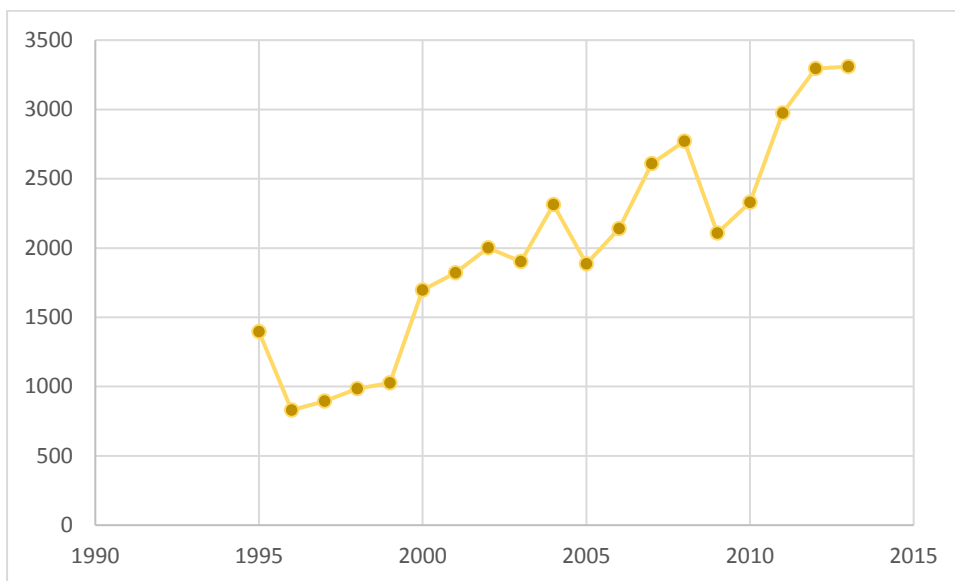


Figure 6.6: Total African arrivals to Asia ('000)

It is evident from Figure 6.6 that there was a drop in arrivals to Asia post-1995, with very slow year-on-year growth until 2000. A steady growth is seen, with the exception of 2003, 2005 and 2009, the latter due to the world economic crisis. 2010 onwards revealed rapid growth to Asia, while from 1995 to 2013, the number of African arrivals to Asia nearly doubled, making Africa a prominent growth market for Asian destinations. Since South Africa is a prominent African market, the establishment of trade unions such as BRICS (est. 2010) (Brazil, Russia, India, China and South Africa) have a prominent influence on the arrivals to foreign destinations, especially China and India, as seen in Figure 6.7.

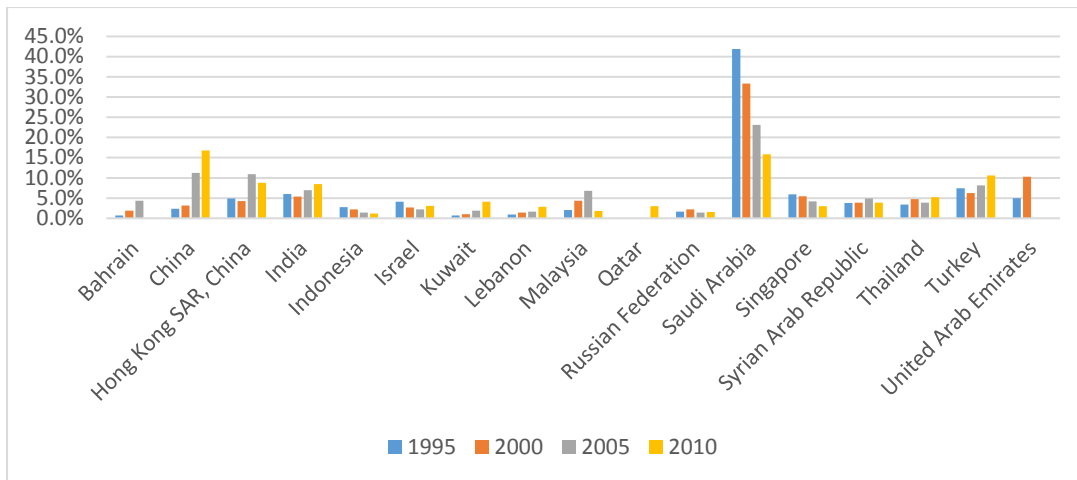


Figure 6.7: African arrivals to Asian country destinations

Figure 6.7 indicates the African arrivals to Asia, while the prominent Asian destinations include Saudi Arabia, Turkey, India, Hong Kong and China (main land). It is clear that Chinese destinations and India are becoming more popular with African arrivals, this could be due to increased trade agreements and investments by Chinese companies within Africa. However, Saudi Arabia remains the largest destination within Asia, which is also predominantly Islamic and requires each Muslim to visit Mecca and Medina for hajj pilgrimage. North African countries are nearly completely Muslim with 93% of the population affiliated with Islam (Pew Research Centre, 2017:online).

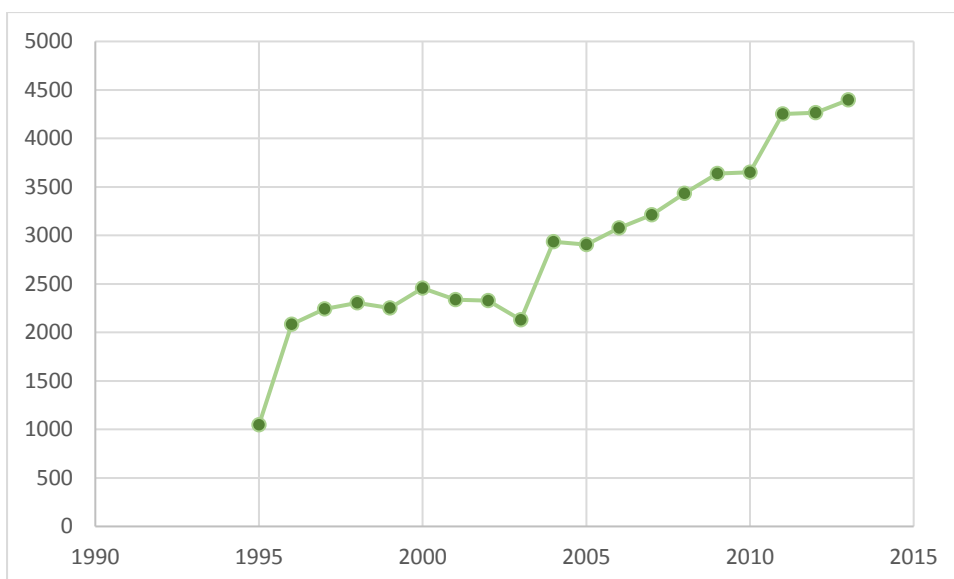


Figure 6.8: Total African arrivals to Europe ('000)

Figure 6.8 indicates that total African arrivals to Europe grew rapidly since 1995, with the exception of 2003, when African arrivals to Europe decreased. African arrivals to Europe had almost quadrupled from 1995 to 2013, which had turned the ratio in favour of Europe.

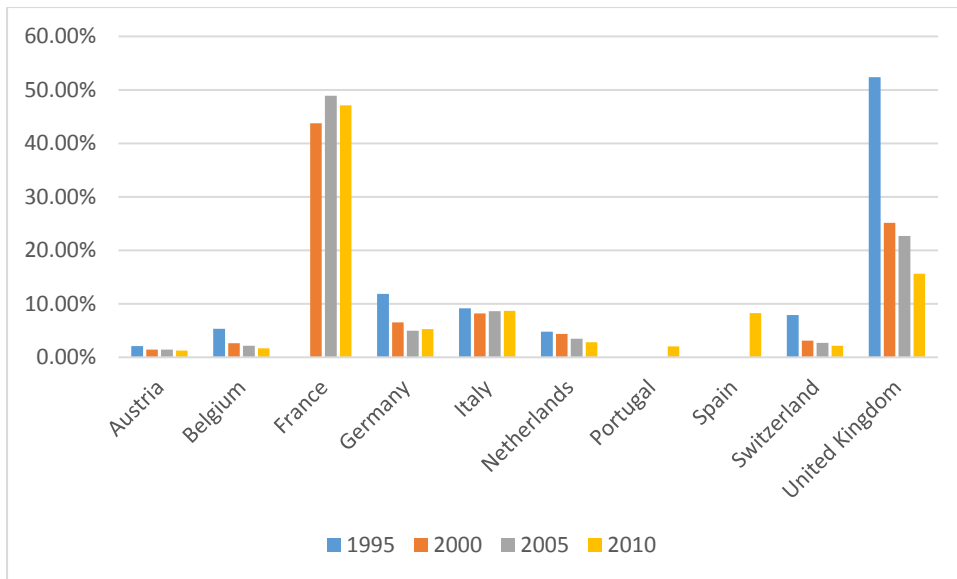


Figure 6.9: African arrivals to European country destinations

The arrivals to Europe, as depicted in Figure 6.9 indicate that France³ and the United Kingdom are popular destinations for Africans, followed by Italy, Germany and The Netherlands. All of the destinations were colonial powers in Africa, and are also known as traditional source markets for inbound tourism to Africa. Countries such as Portugal and Spain have undocumented data, however, these were also prominent colonial countries.

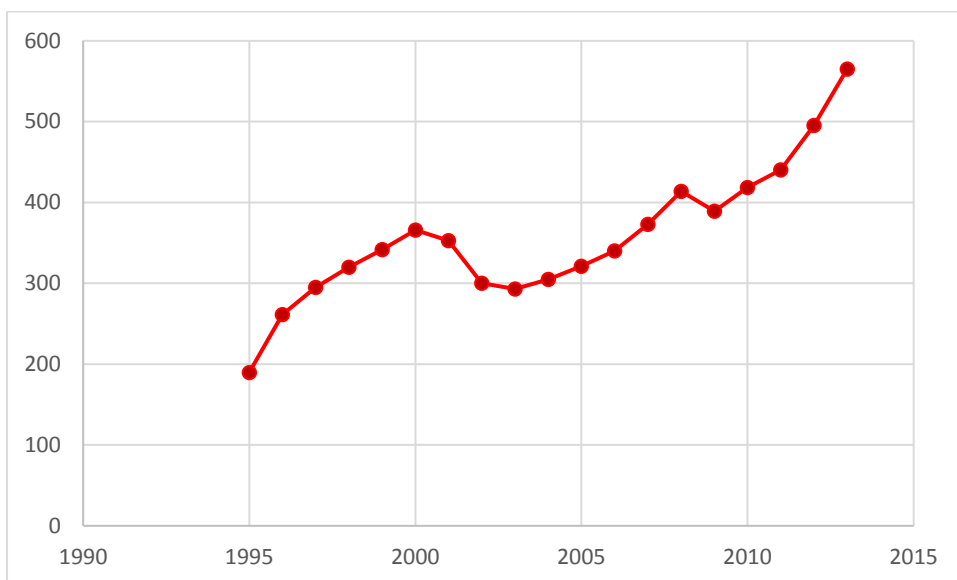


Figure 6.10: Total African arrivals to North America ('000)

³ Due to the lack of available African arrival data for France (1995) the UK (1995) data might indicate an outlier, resulting in unobserved bias.

Figure 6.10 shows the total African arrivals to North America. The number is much lower compared to Asia and Europe, but the ratio had doubled from 1995 to 2013. Since 1995 growth in African arrivals are indicated, however in 2000 the arrivals decreased until 2004 and once again in 2009 (presumably as a result of the world economic crises).

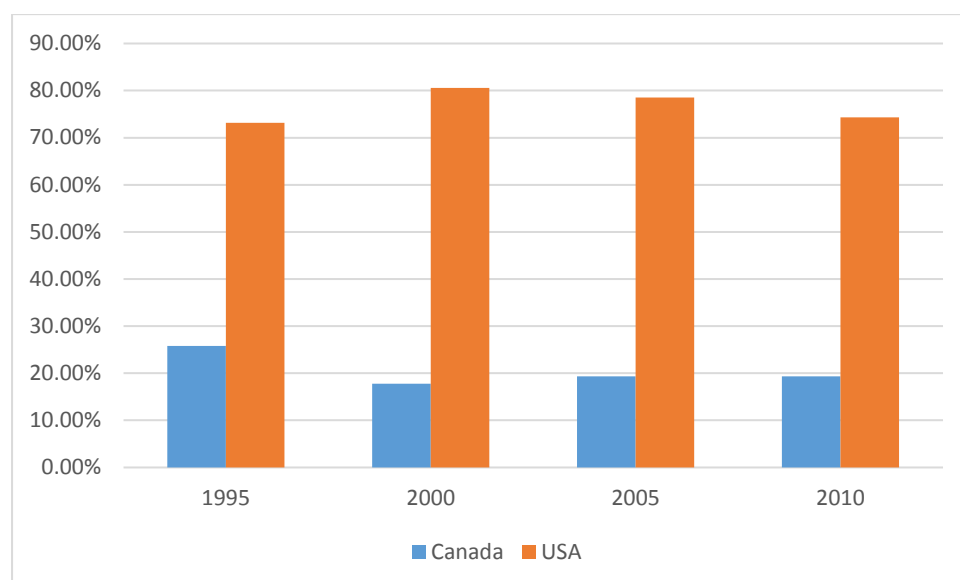


Figure 6.11: African arrivals to North American country destinations

Figure 6.11 indicates that African arrivals to North America are predominant to the United States of America and Canada. The USA is by far the most prominent destination, this could be due to historic and colonial ties, since during the Atlantic slave trade slaves were taken to the US as labour for sugarcane and cotton plantations, primarily from Liberia and West African countries. Arrivals to Mexico are not indicated since it makes out less than 1% of African arrivals.

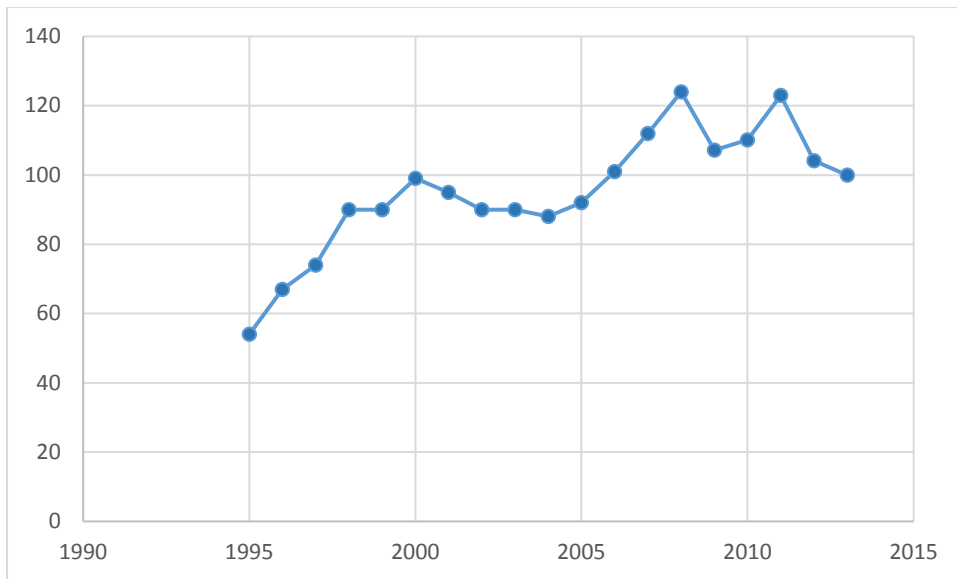


Figure 6.12: Total African arrivals to Oceania

African arrivals to Oceania are depicted in Figure 6.12. The growth in arrivals to Oceania seems to be less prominent, compared to other destinations (Asia, Europe, and North America). Moreover, Oceania was the only continent that showed a decrease in 2013. It is also clear that the African arrivals to Oceania are shows discrepancies in the series, with a few good growth years, followed by a few decreasing years.

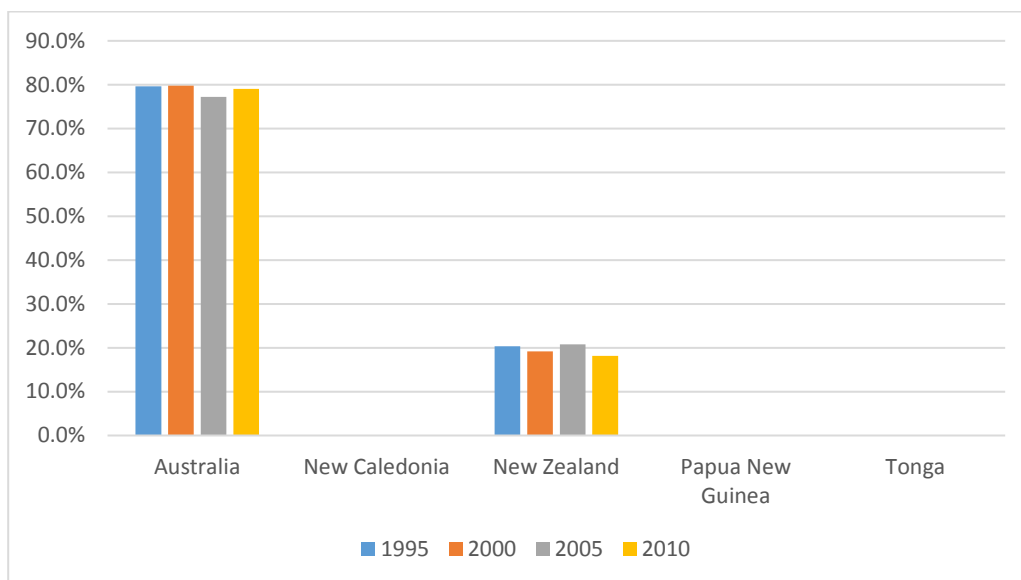


Figure 6.13: African arrivals to Oceanian country destinations

Figure 6.13 indicates that Australia and New Zealand are prominent destinations. African arrivals to Oceania only account for around 2% (see Figure 6.3) of the outbound travel by Africans. The possible reasons for the arrivals, especially since South Africa is the largest

travel market in terms of African departures, might be visiting friends and family who have immigrated to Australia and New Zealand, as well as, sport such as rugby championships.

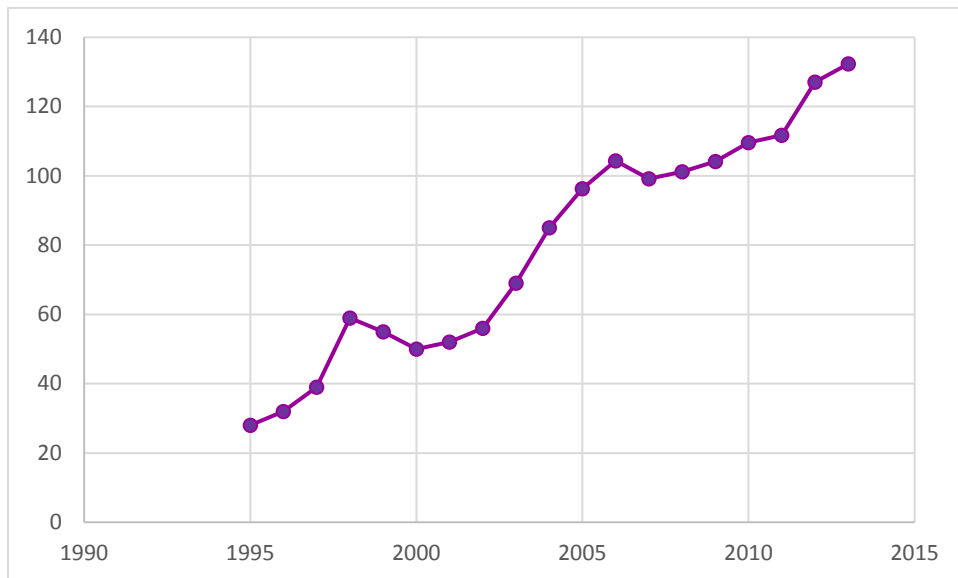


Figure 6.14: Total African arrivals to South America

The number of arrivals to South America, Figure 6.14, might not be as prominent as Asia or Europe, but the ratio of arrivals from 1995 to 2013 had increased fourfold, similar to Europe's ratio. The number of arrivals was similar to Oceania; yet growth seemed imminent post-2013 compared to Oceania. The increase in African arrivals would become more prominent, especially since the introduction (since 2015) of direct routes between Johannesburg (South Africa) and Sao Paulo (Brazil) which might presumably be due to the BRICS agreement.

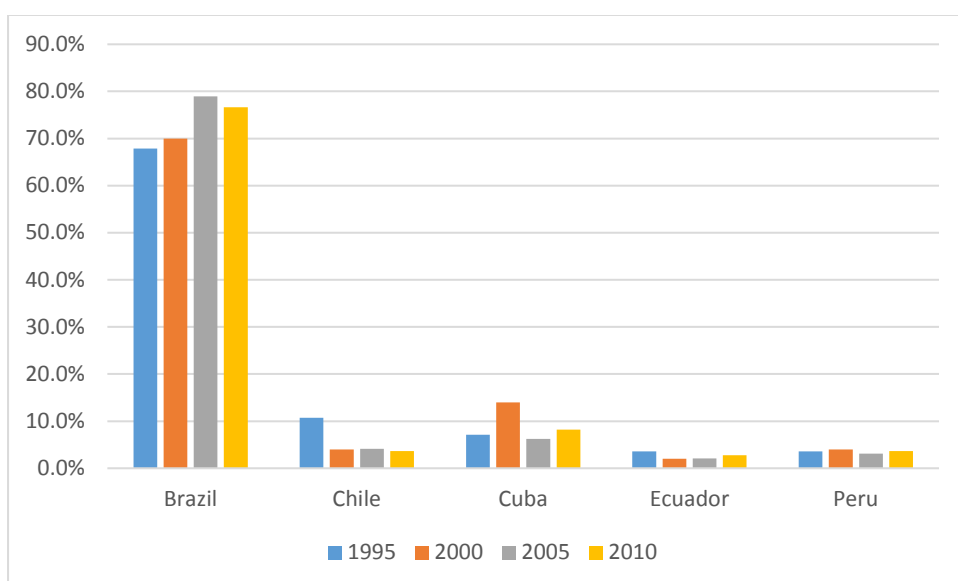


Figure 6.15: African arrivals to South American country destinations

African arrivals to South America are depicted in Figure 6.15. Here it indicates that Brazil, Cuba, Chile, Peru, and Ecuador are the most visited countries, however arrival records from this region are scant. The trade agreements such as BRICS might be a crucial reason for the high arrivals, post 2006 when BRICS was established.

6.5 Methodology

This section discusses the methodology of Chapter 6, including the model, data and the pre-modelling analysis that was applied.

6.5.1 AIDS model

The generalised form of the linear approximate AIDS (LA-AIDS) model is given by Equation 6.5 (Han *et al.*, 2006):

$$w_{it} = a_i + \sum_j r_{ij} \ln p_{jt} + \beta_i \ln \left(\frac{x}{p^*} \right)_t + \varepsilon_{it} \quad [6.5]$$

Where w_i is the weight assigned to each destination, which represents the share of African tourists that each continent (i) receives; $\ln p_i$ represents the effective relative price index of each continent and is derived as follows (Han *et al.*, 2006):

$$p_i = \frac{CPI_i \times ER_i}{CPI_{Africa} \times ER_{Africa}} \quad [6.6]$$

With CPI referring to the Consumer Price index and ER the exchange rate (relative to the US\$). In Equation [6.5], the term $\ln \frac{x}{p^*}$ represents the natural log of real expenditure of African tourists. Expenditure (x) is calculated as the per capita African tourist expenditure, and it is deflated using the Stone price index that can be defined as (Han *et al.*, 2006):

$$\ln p^* = \sum_i w_{it} \ln p_{it} \quad [6.7]$$

In Equation [6.5], ε_i represents the error term.

The above LA-AIDS is a static model that includes no autoregressive or distributed lag terms. De Mello and Fortuna (2005) however indicate that the dynamic AIDS model also provides robust estimates. In this regard, one of the specifications proposed is the partial adjustment model.

The partial adjustment model assumes that the desired level of arrivals to a destination is not observable, but that the actual change in arrivals ($y_t - y_{t-1}$) for any period is some fraction (δ) of the desired change ($y_t^* - y_{t-1}$), so that (Gujarati & Porter, 2009:632):

$$y_t - y_{t-1} = \delta(y_t^* - y_{t-1}) \quad [6.8]$$

δ typically lies between 0 and 1, and the closer to 1, the quicker the adjustment towards the desired level. Rearranging [6.8], shows that the model now contains a lagged dependent variable, i.e.

$$y_t = \delta y_t^* + (1 - \delta)y_{t-1}$$

If the optimal level of arrivals (y_t^*) is a function of x_t , such that $y_t^* = \alpha + \beta x_t + \varepsilon_t$, then current levels of arrivals are given by:

$$y_t = \delta(\alpha + \beta x_t + \varepsilon_t) + (1 - \delta)y_{t-1}, \text{ which can be rewritten as} \\ y_t = \delta\alpha + \delta\beta x_t + (1 - \delta)y_{t-1} + \delta\varepsilon_t \quad [6.9]$$

The short-run reaction of y_t to a change in x_t is given by $\delta\beta$, while the long-run reaction is only given by β . The autoregressive coefficient $(1 - \delta)$ is therefore used to derive a value for δ , and the coefficient of the independent variable is divided by δ to obtain the long-run reaction (Gujarati & Porter, 2009:633). Applying this principle to the AIDS model defined in 6.5, means that the dynamic model estimated takes the following form:

$$w_{it} = a_i + \sum_j r_{ij} \ln p_{jt} + \beta_i \ln \left(\frac{x}{p^*} \right)_t + (1 - \delta_i)w_{it-1} + \varepsilon_{it} \quad [6.10]$$

6.5.2 Data

The data was derived from the UNWTO and the International Monetary Fund's International Financial Statistics (IFS) database for the years 1995 to 2013. The UNWTO supplied tourism arrivals data as well as expenditure data per country (218 countries), which was then grouped per continent (see Table 6.1). Total African arrivals to each continent were subsequently derived from the UNWTO database and the weight for each continent (w_i) calculated by dividing the African arrivals to the continent by total African arrivals to all continents.

Table 6.1: Continents, countries and data sources

Continent	Countries	
Asia	Afghanistan, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China (Mainland, Hong Kong & Macao), India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kazakhstan, Korea, Kuwait, Kyrgyzstan, Laos, Lebanon, Malaysia, Maldives, Mongolia, Myanmar (Burma), Nepal, Oman, Pakistan, Palestine*, Philippines, Qatar, Russia, Saudi Arabia, Singapore, Sri Lanka, Syria, Taiwan*, Tajikistan, Thailand, Timor-Leste, Turkey, Turkmenistan, United Arab Emirates, Uzbekistan, Vietnam, Yemen.	
Europe	Albania, Andorra, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.	
North America	Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire*, British Virgin Islands*, Canada, Cayman Islands, Curacao, Dominica, Dominican Republic, El Salvador, Grenada, Guadeloupe*, Guatemala, Haiti, Honduras, Jamaica, Martinique*, Mexico, Montserrat*, Nicaragua, Panama, Puerto Rico, Saba*, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sint Eustatius*, Sint Maarten, Trinidad and Tobago, Turks and Caicos Islands, United States of America, United States Virgin Islands.	
Oceania	American Samoa, Australia, Cook Islands*, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia, New Caledonia, New Zealand, Niue*, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, Vanuatu.	
South America	Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, French Guiana*, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela.	
Africa	Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Republic of the Congo, Cote d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.	
Variable	Description	Source
TAA	Total African arrivals (000)	UNWTO
A_OUT_TR_EXP	African outbound travel expenditure (\$mil)	UNWTO
EXCHANGE RATE	Ratio of exchange rates based on 2010 arrivals (US\$)	IMF IFS
CPI	Average Consumer Price Index (2010=100)	IMF IFS

Source: Compiled by the researcher

The effective relative price for each continent was determined according to Equation [6.6]. The country consumer price indices (CPI) and exchange rate data (compared to the US\$) were sourced from the IFS database. Since the effective relative price is not for a country but for a continent, some decision had to be taken on how to combine the data. A weighted average method was applied, with the weights representing the importance of the country in terms of African arrivals to that continent. Since the base year for the CPI was 2010, the weights were also derived from the 2010 arrivals data. For example, in the North American continent, the United States of America received 61% of African tourists to the continent, while Canada received 36% and Mexico only 3%. The North American effective price is therefore given by the following:

$$p_{North\ America} = 0.61(CPI_{USA} \times ER_{USA}) + 0.03(CPI_{Canada} \times ER_{Canada})$$

The same process was followed for the other continents. The countries and weights for the various continents are presented in Table 6.2. In terms of the exchange rate, an indirect quotation is used, with the US\$ as the base currency while all foreign currencies are the currency counters. The consumer price index (CPI) data was obtained from the IMF's IFS database to incorporate price data. The exchange rate and CPI per continents are displayed in Figure 6.16 to 6.21.

Table 6.2: Countries and weights used for the effective price variable

North America (PNAM)	USA (0.79), Canada (0.21).
South America (PSAM)	Brazil (0.95), Peru (0.05).
Europe (PEUR)	Austria (0.01), Belgium (0.02), France (0.50), Germany (0.06), Italy (0.09), Netherlands (0.03), Portugal (0.02), Spain (0.09), Switzerland (0.02), United Kingdom (0.16).
Asia (PASIA)	Hong Kong SAR, China (0.11), India (0.11), Indonesia (0.01), Israel (0.04), Macau (China) (0.21), Malaysia (0.02), Qatar (0.04), Russian Federation (0.02), Saudi Arabia (0.20), Singapore (0.04), Thailand (0.07), Turkey (0.13).
Oceania (POC)	Australia (0.81), New Zealand (0.19)
Africa (PAFR)	Algeria (0.02), Egypt (0.03), Kenya (0.02), Malawi (0.03), Mauritius (0.01), Morocco (0.01), Mozambique (0.08), Nigeria (0.23), Rwanda (0.03), South Africa (0.32), Swaziland (0.07), Tanzania (0.02), Tunisia (0.06), Uganda (0.04), Zambia (0.03).

Source: Compiled by the researcher

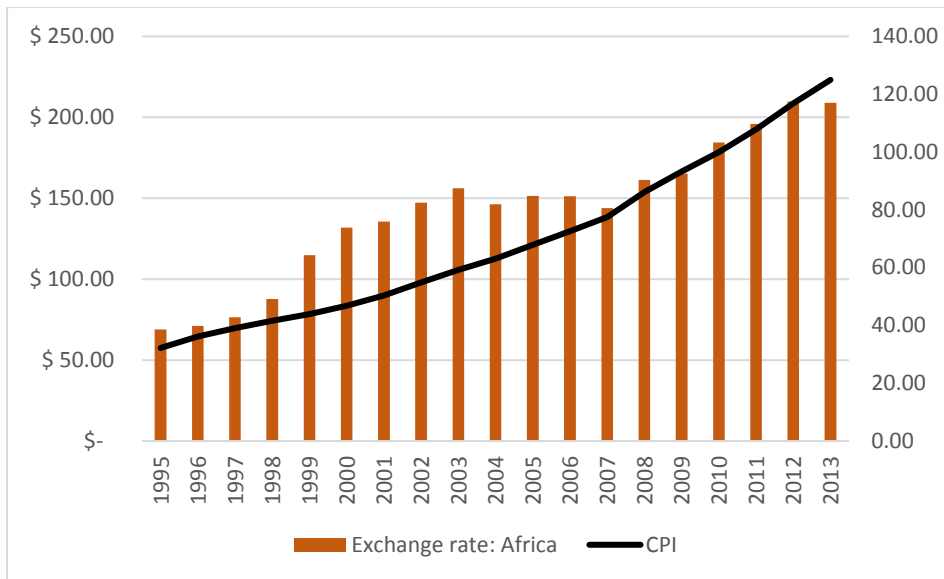


Figure 6.16: African exchange rate and CPI

The exchange rates of Africa are portrayed in Figure 6.16. The exchange rates did fluctuate, especially during times of economic crises for instance in 2008/2009. The data revealed that on average African countries have the highest CPI change (1995 – 2013) followed by South America and Asia, which further complicates unemployment and poverty figures in these regions.

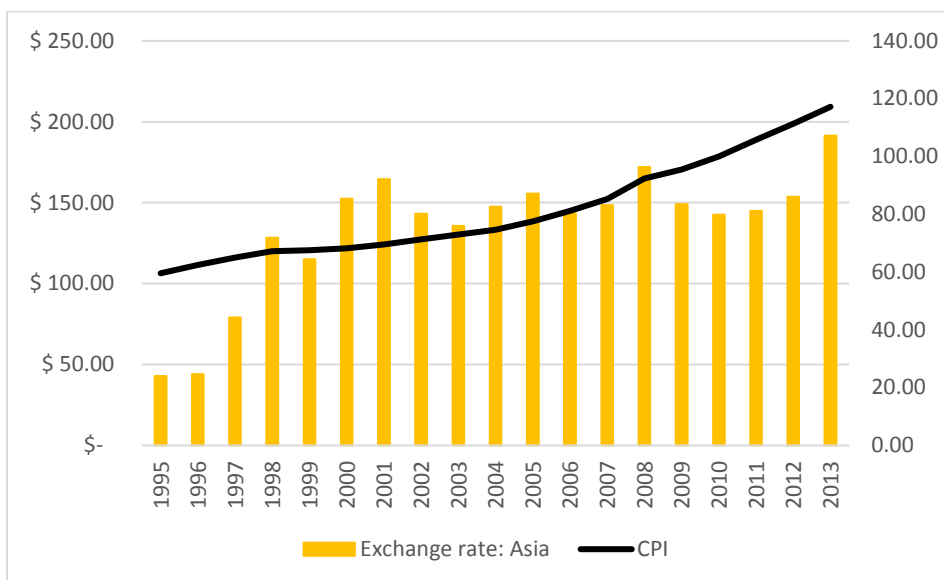


Figure 6.17: Asian exchange rate and CPI

The exchange rates and consumer price index for Asia is indicated in Figure 6.17. The Asian exchange rates are also indirectly calculated, and during 1995-1997 the exchange rates are below \$100 per foreign currency. As to CPI, Asia seemed to experience low inflation rates.

However, after 2005 and the adoption of the floating exchange rate regime, the inflation increased, resulting in Asian countries being considered as expensive compared to Europe or the USA.

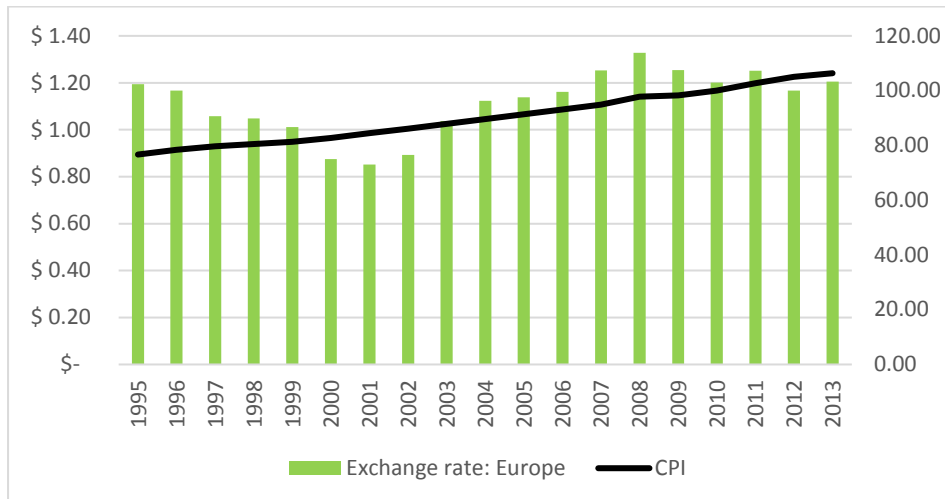


Figure 6.18: European exchange rate and CPI

Since the introduction of the Euro in 1999 (European Union [EU], 2016a;b:online), the indirect exchange rate in Europe experienced a period of adjustment (2000-2002), thereafter the Euro became closer to unity with the US\$ (see Figure 6.18. Moreover, Europe benefits due to the strength of the British Pound, which historically had always been a prominent exchange currency. The inflation was considered low, but it did not make Europe an affordable destination to travel to.

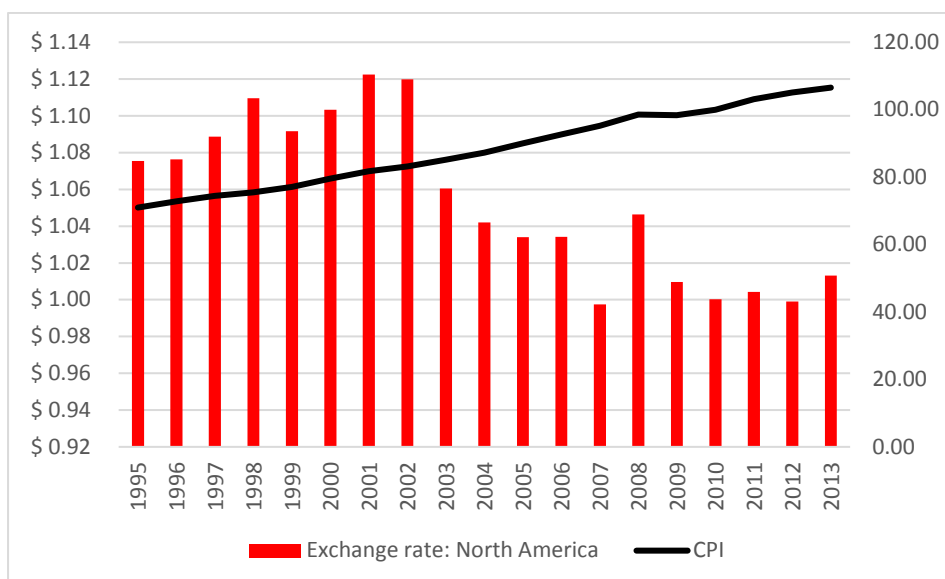


Figure 6.19: North American exchange rate and CPI

Since the USA is the most prominent destination in North America, Figure 6.19 indicates that the North American continent is near to unity (1US\$). It is clear that the fluctuations on the vertical axis seems volatile, however the change is very small. Since 2009 the exchange rate has flattened out to near unity. Inflation had progressed steadily over time, close to the Federal Reserve's inflation target of 2% with minor decrease during the economic crises.

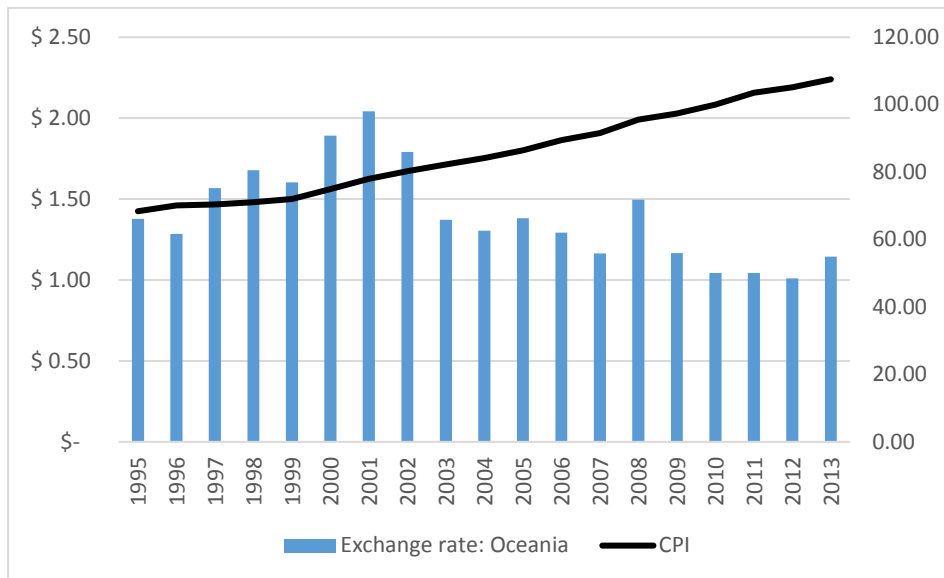


Figure 6.20: Oceania exchange rate and CPI

As seen in Figure 6.20 Oceania's exchange rate seems volatile, however, regarding the vertical axis the fluctuations are minimal, but still higher than North America. Since 2009 the exchange rates are close to unity with the US\$. Inflation had mimicked that of North America with steady and slow inflation growth rates.

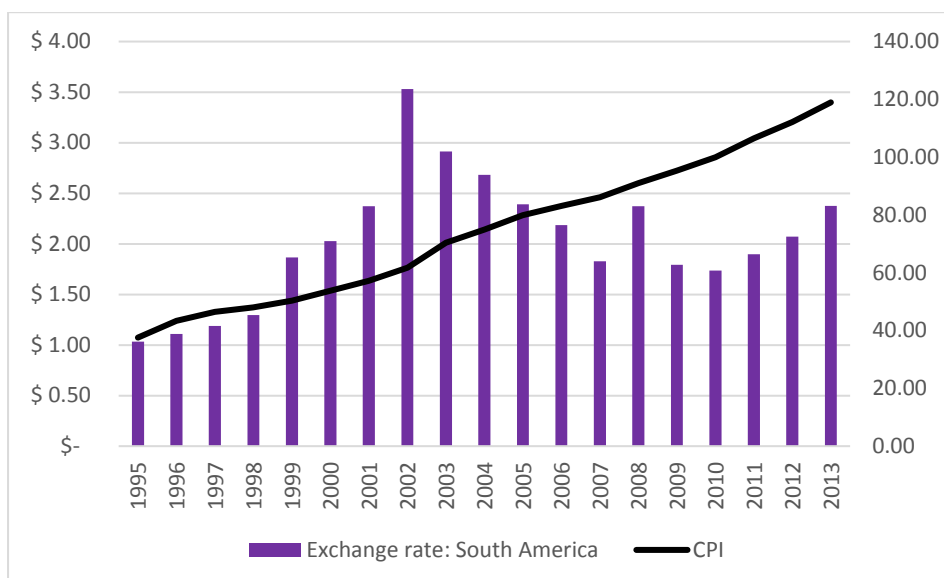


Figure 6.21: South American exchange rate and CPI

South American exchange rate and consumer price index are indicated in Figure 6.21. The exchange rate is considered volatile, however still more stable than African countries. The CPI was considered high, since it had increased rapidly over time, and was much higher compared to Asia, Europe, North America and Oceania, with similarities with Africa.

The expenditure variable (x_t) were sourced from the UNWTO, and African outbound travel expenditure (in millions of US\$) were divided by the total African outbound travellers to derive the expenditure per tourist. In order to convert it into real expenditure (REX), expenditure per tourists were divided by the Stone price index, calculated according to Equation [6.7]. As is customary in AIDS models, all the price and expenditure data were standardised by means of natural logarithms. The software used in the pre-modelling analysis is EViews 9, while STATA 14 was applied to estimate the models.

6.5.3 Pre-modelling analysis

Before estimating the models, the properties of the variables were reviewed. Firstly, a visual check of the variables was done (see Appendix, Figure B1 and B2) and it became clear that most of the data displayed a certain trend. This was tested more formally through the Augmented Dickey-Fuller test, and the results are summarised in Table 6.3.

Table 6.3: Results of the Augmented Dickey-Fuller test

Series	Test assumption			Series	Test assumption		
	constant	none	constant & trend		constant	none	constant & trend
WAFRICA	0.0898	0.4094	0.2709	D(WAFRICA)	0.0009*	< 0.0001*	0.0055*
WASIA	0.1336	0.5138	0.1549	D(WASIA)	0.0003*	< 0.0001*	0.0028*
WEUROPE	0.0056*	0.7485	0.0113*	D(WEUROPE)		< 0.0001*	
WNAM	0.3325	0.5318	0.7471	D(WNAM)	0.1184	0.0112*	0.1393
WOCEAN	0.8546	0.4457	0.0631	D(WOCEAN)	0.0241*	0.0019*	0.0734
WSAM	0.2415	0.8609	0.0049	D(WSAM)	0.0158*	0.0006*	
LNPAFR	0.8947	0.6678	0.3431	D(LNPAFR)	0.0017*	0.1671	0.0068*
LNPASIA	0.0066*	0.0091*	0.1684	D(LNPASIA)			0.0411*
LNPEUR	0.2063	0.6566	0.0105	D(LNPEUR)	0.2392	0.0310*	0.3752
LNPNAM	0.0566	0.8380	0.8733	D(LNPNAM)	0.0769	0.0079*	0.1076
LNPOC	0.5593	0.9710	0.0260*	D(LNPOC)	0.0009*	0.0007*	0.0072
LNPSAM	0.4056	0.6830	0.4582	D(LNPSAM)	0.0021*	0.0001*	0.0117*
LNREX	0.2138	0.1954	0.4848	D(LNREX)	0.0073*	0.0005*	0.0462*

*= significant with $\alpha < 0.05$

The null hypothesis of the test is that the series contains a unit root. From the results, it is clear that most of the series were non-stationary and integrated as $I(1)$. However, some of the series are of order $I(0)$ as indicated in the table with an asterisks. The null hypothesis cannot be rejected when the level series were considered. Nonetheless, it can be rejected once the series is differenced. Trend stationarity is also visible within the series (see Appendix Table B1). In the unit root tests the stationarity is confirmed and therefore the models under investigation are valid. To test for possible co-integration between the various series, the Engle-Granger test was completed in EViews (since the dataset was too short to use the Johansen test). The results, when the respective weights were the dependent variable, are summarised in Table 6.4.

Table 6.4: Results of the co-integration test

Dependent	tau-statistic	Prob.*	z-statistic	Prob.*
WASIA	-6.33516	0.0665	-23.0482	0.1357
WEUROPE	-5.37391	0.2047	-58.0135	0.0001*
WNAM	-4.22893	0.5455	-41.0437	0.0001*
WOCEAN	-4.47642	0.4502	-18.2377	0.5362
WSAM	-4.81539	0.3383	-20.6186	0.3142
WAFRICA	-5.88137	0.1202	-80.1321	0.0001*

*= significant with $\alpha < 0.05$

The null hypothesis of the co-integration test is that the series are not co-integrated. Mixed results are evident, especially considering Europe, North America and Africa. For all other cases, this hypothesis could not be rejected. It should, however, be noted that only 19 years' data were available and therefore the time series were quite short, which might render the data too limited to be adequate. Based on this presumption, the research continued to estimate the static and dynamic AIDS models as defined in Equations [6.5] and [6.9] as explained before. Lewbel and Ng (2005:482) state that demand systems with non-stationary prices might have unstable parameter, resulting in errors showing signs of persistence and therefore recommend that the errors' unit root properties be scrutinised. Therefore, the model errors are scrutinised and also repeated in the results.

6.6 Results

The static and dynamic AIDS models⁴ were estimated using STATA 14. Firstly, the unrestricted models were estimated, and the results are shown in section 6.6.1. The models were tested for symmetry and homogeneity, using the Wald test. Based on these results (also

⁴ Due to inclusion of other variables, more specific variables such as language and colonisation are not accounted for in the AIDS models.

portrayed in 6.6.1), restricted models were estimated, and the results are debated in section 6.6.2. From the restricted models, elasticities were calculated, and these are discussed in section 6.6.3.

6.6.1 Unrestricted models

Firstly, the static LA-AIDS model, as indicated in Equation [6.5], was estimated through the seemingly unrelated regression (SUR) method. The results are shown in Table 6.7 ahead in this section. It should be noted that one equation had to be left out of the estimation to ensure convergence. For the purpose of this research study the African equation was therefore not included. The African equation coefficients can be derived through using the adding up restriction (Wu *et al.*, 2011). This implies that the sum of the real expenditure coefficients ($\sum \beta_i$) should be equal to 0; the sum of the intercepts ($\sum \alpha_i$) must be equal to 1 and the sum of the price elasticities for each destination ($\sum_i r_{ij}$) must also be equal to 0. The results indicate that for the majority of the continents, the own price variable was positive and insignificant. The only exceptions were North America and Oceania where the own price variable was positive, but not significant. Asia is the only continent where the independent variables had the least explanatory power and the independent variables explained only 46% of the variance in the portion of African visitors to Asia. For the remaining equations, the R-squared was above 0.6 and up to 0.86.

Table 6.5: Results of the static unrestricted LA-AIDS model

Asia						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	0.034514	0.02752	1.25	0.21	-0.01942	0.088453
LNPASIA	0.037501	0.02578	1.45	0.146	-0.01303	0.088029
LNPEUR	-0.0067	0.054414	-0.12	0.902	-0.11335	0.099944
LNPNAM	0.09693	0.112361	0.86	0.388	-0.12329	0.317153
LNPOC	-0.03022	0.058784	-0.51	0.607	-0.14544	0.084992
LNPSAM	-0.03061	0.027702	-1.11	0.269	-0.08491	0.023683
LNREX	-0.00456	0.021139	-0.22	0.829	-0.04599	0.036874
_cons	-0.06175	0.271931	-0.23	0.82	-0.59472	0.471226
RMSE	0.013484		R-sq	0.4637		
Europe						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.01552	0.02516	-0.62	0.537	-0.06483	0.03379
LNPASIA	-0.02923	0.023569	-1.24	0.215	-0.07542	0.016964
LNPEUR	0.043379	0.049746	0.87	0.383	-0.05412	0.14088
LNPNAM	-0.13942	0.102724	-1.36	0.175	-0.34075	0.061919
LNPOC	0.0229	0.053742	0.43	0.67	-0.08243	0.128231
LNPSAM	0.039562	0.025326	1.56	0.118	-0.01008	0.0892
LNREX	-0.05406	0.019326	-2.8	0.005	-0.09194	-0.01618
_cons	0.671807	0.248606	2.7	0.007	0.184548	1.159067
RMSE	0.012327		R-sq	0.6002		
North America						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	0.000767	0.002879	0.27	0.79	-0.00488	0.006409
LNPASIA	0.001808	0.002697	0.67	0.503	-0.00348	0.007094
LNPEUR	0.00999	0.005692	1.76	0.079	-0.00117	0.021147
LNPNAM	-0.00903	0.011754	-0.77	0.442	-0.03207	0.014006
LNPOC	-0.01022	0.006149	-1.66	0.096	-0.02227	0.00183
LNPSAM	0.009698	0.002898	3.35	0.001	0.004018	0.015378
LNREX	-0.00643	0.002211	-2.91	0.004	-0.01077	-0.0021
_cons	0.058125	0.028446	2.04	0.041	0.002371	0.113878
RMSE	0.001411		R-sq	0.8151		
Oceania						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00152	0.000639	-2.38	0.017	-0.00277	-0.00027
LNPASIA	-0.00087	0.000598	-1.45	0.147	-0.00204	0.000304
LNPEUR	0.002313	0.001263	1.83	0.067	-0.00016	0.004788
LNPNAM	-0.00065	0.002607	-0.25	0.805	0.005755	0.004465
LNPOC	-0.00092	0.001364	-0.67	0.502	0.003589	0.001758
LNPSAM	0.00167	0.000643	2.6	0.009	0.00041	0.00293
LNREX	1.26E-05	0.000491	0.03	0.98	-0.00095	0.000974

_cons	-0.00719	0.00631	-1.14	0.254	-0.01956	0.005175
RMSE	0.000313		R-sq	0.8688		
South America						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00169	0.000499	-3.39	0.001	-0.00267	-0.00072
LNPAZIA	-0.00224	0.000468	-4.78	0	-0.00316	-0.00132
LNPEUR	-0.00142	0.000987	-1.44	0.151	-0.00335	0.000516
LNPNAM	-0.0003	0.002039	-0.15	0.882	-0.0043	0.003694
LNPOC	0.003006	0.001067	2.82	0.005	0.000916	0.005097
LNPSAM	0.000153	0.000503	0.3	0.762	-0.00083	0.001138
LNREX	-0.00115	0.000384	-3.01	0.003	-0.00191	-0.0004
_cons	0.003877	0.004935	0.79	0.432	-0.00579	0.013548
RMSE	0.000245		R-sq	0.8606		

The results indicate that the majority of the variables are not significant, however within certain continent some variables are significant. South America had the most significant variables, while only North America and Oceania had a significant South American variable. The remaining continents had no significant relationships. The estimated model was tested for compliance with the restrictions of symmetry and homogeneity as the demand theory requires. The Wald test were used in testing these restrictions for each equation, first separately and then combined. The test was compiled in such a way that the null hypothesis is symmetric prices and homogeneity in prices. A rejection of the null hypothesis therefore, indicates that the model is not symmetric and not homogeneous. The results of these tests are indicated in Table 6.5. The table contains the chi-square statistic as well as probability.

Table 6.6: Results of the Wald tests for symmetry and homogeneity

Equation	Symmetry	Homogeneity	Combined
Asia	8.20 [0.0845]	2.42 [0.1195]	10.71 [0.0574]
Europe	9.09 [0.0590]	1.73 [0.1884]	15.28 [0.0092]
North America	17.50 [0.0015]	0.20 [0.6588]	21.77 [0.0006]
Oceania	0.64 [0.1560]	0.00 [0.9831-]	6.66 [0.2472]
South America	11.31 [0.0233]	4.45 [0.0348]	12.19 [0.0323]

Table 6.6 reveals that the majority of the Wald test results are homogenous, with the exception of South America, however, few conditions hold in terms of symmetry. This implies that the restricted static LA-AIDS model had to be estimated to ensure that the results complied with the demand theory. The results of the unrestricted dynamic AIDS model are presented in Table 6.7 later on in this section.

Contradictory to the results of the static unrestricted model, the own price variable for most continents were negative and insignificant, with the exception of North America which was positive and significant, and South America which was negative but significant. The demand equation for South America had the least explanatory power, i.e. 49% followed by Asia (50%) which had a slightly higher percentage than the static results. The other continents' explanatory power varied between 63% (Europe) and 91% (North America). All continents indicated that the lagged dependent variables WASIA L1, WEUROPE L1, WNAM L1, WOCEAN L1, and WSAM L1 were positive and significant, which indicate habit formation for African arrivals to these continents.

Table 6.7: Results of the unrestricted dynamic model

Asia						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	0.016793	0.026494	0.63	0.526	-0.03513	0.06872
LNPASIA	-0.03352	0.027896	-1.2	0.230	-0.08819	0.021157
LNPEUR	0.08775	0.053711	1.63	0.102	-0.01752	0.193022
LNPNAM	-0.07497	0.112298	-0.67	0.504	-0.29507	0.145135
LNPOC	0.022395	0.0581	0.39	0.700	-0.09148	0.13627
LNPSAM	0.018693	0.026699	0.7	0.484	-0.03364	0.071022
LNREX	0.016083	0.020434	0.79	0.431	-0.02397	0.056133
WASIA L1.	0.799565	0.006888	116.08	0.000	0.786066	0.813065
_cons	-0.31556	0.266643	-1.18	0.237	-0.83817	0.207054
RMSE	0.01297		R-sq	0.499		
Europe						
	Coef	Std. Err.	z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00964	0.019215	-0.5	0.616	-0.0473	0.028024
LNPASIA	0.041892	0.020237	2.07	0.038	0.002228	0.081555
LNPEUR	-0.05514	0.038964	-1.42	0.157	-0.13151	0.021226
LNPNAM	0.045292	0.081456	0.56	0.578	-0.11436	0.204943
LNPOC	-0.03749	0.042139	-0.89	0.374	-0.12008	0.045105
LNPSAM	0.022427	0.019364	1.16	0.247	-0.01552	0.060379
LNREX	-0.04603	0.014819	-3.11	0.002	-0.07508	-0.01699
WEUROPE L1.	0.453539	0.006724	67.45	0.000	0.440361	0.466717
_cons	0.469378	0.19337	2.43	0.015	0.09038	0.848376
RMSE	0.009407		R-sq	0.6346		
North America						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	0.00022	0.002095	0.11	0.916	-0.00389	0.004327
LNPASIA	0.007257	0.002207	3.29	0.001	0.002931	0.011584
LNPEUR	-0.01663	0.00429	-3.88	0.000	-0.02504	-0.00823
LNPNAM	0.021808	0.008903	2.45	0.014	0.004359	0.039257

LNPOC	-0.00853	0.004595	-1.86	0.064	-0.01753	0.000481
LNPSAM	0.00373	0.002116	1.76	0.078	-0.00042	0.007878
LNREX	-0.00311	0.001617	-1.92	0.055	-0.00628	6.05E-05
WNAM L1.	1.298514	0.03189	40.72	0.000	1.23601	1.361018
_cons	0.009832	0.021105	0.47	0.641	-0.03153	0.051198
RMSE	0.001026		R-sq	0.9053		
Oceania						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00069	0.000571	-1.21	0.225	-0.00181	0.000426
LNPSAM	0.000279	0.0006	0.47	0.642	-0.0009	0.001455
LNPEUR	-0.00074	0.001162	-0.64	0.524	-0.00302	0.001538
LNPNAM	0.001807	0.002412	0.75	0.454	-0.00292	0.006535
LNPOC	-0.00141	0.001248	-1.13	0.258	-0.00386	0.001034
LNPSAM	0.001065	0.000575	1.85	0.064	-6.2E-05	0.002191
LNREX	0.000127	0.000439	0.29	0.772	-0.00073	0.000988
WOCEAN L1.	0.76489	0.045579	16.78	0.000	0.675557	0.854223
_cons	-0.00332	0.005741	-0.58	0.563	-0.01457	0.007934
RMSE	0.000279		R-sq	0.9007		
South America						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	1.82E-05	0.00086	0.02	0.983	-0.00167	0.001705
LNPSAM	-0.00147	0.000906	-1.62	0.105	-0.00324	0.000309
LNPEUR	0.004617	0.001745	2.65	0.008	0.001197	0.008036
LNPNAM	-0.01297	0.003648	-3.56	0.000	-0.02012	-0.00582
LNPOC	0.004776	0.001887	2.53	0.011	0.001078	0.008474
LNPSAM	-0.00207	0.000867	-2.39	0.017	-0.00377	-0.00037
LNREX	0.001122	0.000664	1.69	0.091	-0.00018	0.002423
WSAM L1.	1.485947	0.013389	110.98	0.000	1.459705	1.512189
_cons	0.021275	0.008659	2.46	0.014	0.004304	0.038246
RMSE	0.000421		R-sq	0.4864		

Table 6.8 shows the results of the Wald tests for homogeneity and symmetry of the dynamic AIDS model. Again the majority of the results are homogenous, with the exception of South America. One more few of the condition hold for symmetry. Yet again, this implies that the restricted models should be estimated where the conditions of homogeneity and symmetry were imposed on the model.

Table 6.8: Wald test results for the unrestricted dynamic model

Equation	Symmetry	Homogeneity	Combined
Asia	2.06 [0.7251]	0.32 [0.5732]	3.42 [0.6358]
Europe	5.10 [0.2769]	0.02 [0.8780]	6.47 [0.2631]
North America	157.44 [<0.0001]	2.27 [0.1319]	180.53 [<0.0001]
Oceania	248.14 [<0.0001]	0.05 [0.8292]	303.04 [<0.0001]
South America	26.20 [<0.0001]	10.99 [0.0009]	40.99 [<0.0001]

6.6.2 Restricted models

Following the results of the Wald tests on the unrestricted models, the static LA-AIDS and dynamic AIDS models were subsequently re-estimated by enforcing the restrictions of homogeneity and symmetry. The restricted models are subsequently discussed.

Table 6.9 shows the results of the restricted static LA-AIDS model. In each of the equations, the own price variable of the majority of the continents were positive, but insignificant. Only two continents (Europe and North America) had negative coefficients, however North America's was significant. The explanatory power had, however, decreased significantly for some of the continents, although the root means square error was still very low (lower than 10%). The LNREX variable also indicates very small and negative coefficients for all regions, excluding Oceania.

Table 6.9: Results of the restricted static LA-AIDS model

Asia						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	0.003193	0.006644	0.48	0.631	-0.00983	0.016215
LNPASIA	-0.00908	0.012099	-0.75	0.453	-0.03279	0.014636
LNPEUR	0.007269	0.011325	0.64	0.521	-0.01493	0.029465
LNPNAM	0.000614	0.001308	0.47	0.639	-0.00195	0.003177
LNPOC	-0.00083	0.000304	-2.72	0.006	-0.00142	-0.00023
LNPSAM	-0.00117	0.00029	-4.03	0.000	-0.00174	-0.0006
LNREX	-0.01603	0.019364	-0.83	0.408	-0.05399	0.021919
_cons	0.160646	0.155339	1.03	0.301	-0.14381	0.465105
RMSE	0.016805		R-sq	0.167		
Europe						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.0064	0.007492	-0.85	0.393	-0.02108	0.008284
LNPASIA	0.007269	0.011325	0.64	0.521	-0.01493	0.029465
LNPEUR	-0.01252	0.013374	-0.94	0.349	-0.03873	0.013691
LNPNAM	0.012412	0.003588	3.46	0.001	0.00538	0.019444
LNPOC	0.002445	0.000678	3.61	0.000	0.001116	0.003774

LNPSAM	-0.00321	0.000701	-4.57	0.000	-0.00458	-0.00183
LNREX	-0.04781	0.018941	-2.52	0.012	-0.08493	-0.01068
_cons	0.416223	0.161877	2.57	0.010	0.098951	0.733496
RMSE	0.016837		R-sq	0.2542		
North America						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00071	0.002102	-0.34	0.736	-0.00483	0.003411
LNPASIA	0.000614	0.001308	0.47	0.639	-0.00195	0.003177
LNPEUR	0.012412	0.003588	3.46	0.001	0.00538	0.019444
LNPNAM	-0.016	0.005136	-3.11	0.002	-0.02606	-0.00593
LNPOC	-0.001	0.00098	-1.02	0.306	-0.00292	0.000916
LNPSAM	0.004682	0.001009	4.64	0.000	0.002705	0.006659
LNREX	-0.00444	0.002065	-2.15	0.031	-0.00849	-0.0004
_cons	0.0465	0.0185	2.51	0.012	0.010241	0.08276
RMSE	0.001676		R-sq	0.739		
Oceania						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00167	0.000384	-4.34	0.000	-0.00242	-0.00092
LNPASIA	-0.00083	0.000304	-2.72	0.006	-0.00142	-0.00023
LNPEUR	0.002445	0.000678	3.61	0.000	0.001116	0.003774
LNPNAM	-0.001	0.00098	-1.02	0.306	-0.00292	0.000916
LNPOC	0.000549	0.000439	1.25	0.210	-0.00031	0.001409
LNPSAM	0.000506	0.000237	2.14	0.033	4.18E-05	0.00097
LNREX	0.000414	0.000461	0.9	0.369	-0.00049	0.001317
_cons	-0.01055	0.004208	-2.51	0.012	-0.0188	-0.0023
RMSE	0.000382		R-sq	0.804		
South America						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.0012	0.000458	-2.62	0.009	-0.0021	-0.0003
LNPASIA	-0.00117	0.00029	-4.03	0.000	-0.00174	-0.0006
LNPEUR	-0.00321	0.000701	-4.57	0.000	-0.00458	-0.00183
LNPNAM	0.004682	0.001009	4.64	0.000	0.002705	0.006659
LNPOC	0.000506	0.000237	2.14	0.033	4.18E-05	0.00097
LNPSAM	0.000387	0.000436	0.89	0.375	-0.00047	0.001241
LNREX	-0.00147	0.000392	-3.74	0.000	-0.00223	-0.0007
_cons	0.000209	0.003542	0.06	0.953	-0.00673	0.00715
RMSE	0.00029		R-sq	0.803		

The Dynamic restricted model (Table 6.10) indicates that the lagged dependent variable was positive for most destinations, excluding Oceania and South America, and was statistically significant for Asia, Europe, and North America. The real expenditure was negative for all destinations, except for Oceania that was positive, and significant for Europe, Oceania, and

South America, although the coefficients were quite small. The own-price variables were mostly negative, with the exception of Oceania and South America, while only being significant for Asia, Europe, and Oceania.

Table 6.10: Results of the restricted dynamic AIDS model

Asia						
	Coef	Std. Err.	z	P> Z	[95% Conf. Interval]	
LNPAFR	0.009015	0.005433	1.66	0.097	-0.00163	0.019664
LNPASIA	-0.04034	0.005969	-6.76	0.000	-0.05204	-0.02865
LNPEUR	0.031201	0.005368	5.81	0.000	0.02068	0.041722
LNPNAM	0.002109	0.001257	1.68	0.093	-0.00035	0.004573
LNPOC	-0.00079	0.000347	-2.29	0.022	-0.00147	-0.00011
LNPSAM	-0.00119	0.000457	-2.6	0.009	-0.00208	-0.00029
LNREX	-0.00843	0.012871	-0.66	0.512	-0.03366	0.016796
WASIA L1.	0.318117	0.115218	2.76	0.006	0.092295	0.54394
_cons	-0.03673	0.092013	-0.4	0.690	-0.21707	0.143614
RMSE	0.011332		R-sq	0.6176		
Europe						
	Coef	Std. Err.	z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00991	0.005645	-1.76	0.079	-0.02097	0.001155
LNPASIA	0.031201	0.005368	5.81	0.000	0.02068	0.041722
LNPEUR	-0.02426	0.007628	-3.18	0.001	-0.03921	-0.00931
LNPNAM	0.002141	0.006338	0.34	0.736	-0.01028	0.014563
LNPOC	0.003868	0.000869	4.45	0.000	0.002165	0.005572
LNPSAM	-0.00304	0.00095	-3.2	0.001	-0.0049	-0.00118
LNREX	-0.02629	0.011943	-2.2	0.028	-0.0497	-0.00288
WEUROPE L1.	0.436522	0.094722	4.61	0.000	0.250871	0.622173
_cons	0.331248	0.085007	3.9	0.000	0.164637	0.497859
RMSE	0.010856		R-sq	0.5134		
North America						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00055	0.002013	-0.27	0.786	-0.00449	0.003399
LNPASIA	0.002109	0.001257	1.68	0.093	-0.00035	0.004573
LNPEUR	0.002141	0.006338	0.34	0.736	-0.01028	0.014563
LNPNAM	-0.00484	0.007382	-0.66	0.512	-0.01931	0.009631
LNPOC	-0.00324	0.001055	-3.07	0.002	-0.00531	-0.00117
LNPSAM	0.004375	0.00141	3.1	0.002	0.001611	0.007139
LNREX	-0.00322	0.001703	-1.89	0.059	-0.00655	0.000122
WNAM L1.	0.54055	0.274178	1.97	0.049	0.003172	1.077928
_cons	0.037157	0.016304	2.28	0.023	0.005202	0.069111
RMSE	0.001279		R-sq	0.852		
Oceania						

	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00158	0.000447	-3.54	0.000	-0.00246	-0.00071
LNPASIA	-0.00079	0.000347	-2.29	0.022	-0.00147	-0.00011
LNPEUR	0.003868	0.000869	4.45	0.000	0.002165	0.005572
LNPNAM	-0.00324	0.001055	-3.07	0.002	-0.00531	-0.00117
LNPOC	0.001228	0.000452	2.72	0.007	0.000342	0.002114
LNPSAM	0.000522	0.000301	1.73	0.083	-6.8E-05	0.001112
LNREX	0.001002	0.00045	2.23	0.026	0.000121	0.001883
WOCEAN L1.	-0.05533	0.165138	-0.34	0.738	-0.37899	0.268339
_cons	-0.01281	0.004095	-3.13	0.002	-0.02084	-0.00478
RMSE	0.000361		R-sq	0.833		
South America						
	Coef	Std. Err.	Z	P> Z	[95% Conf. Interval]	
LNPAFR	-0.00112	0.000557	-2.02	0.044	-0.00222	-3.1E-05
LNPASIA	-0.00119	0.000457	-2.6	0.009	-0.00208	-0.00029
LNPEUR	-0.00304	0.00095	-3.2	0.001	-0.0049	-0.00118
LNPNAM	0.004375	0.00141	3.1	0.002	0.001611	0.007139
LNPOC	0.000522	0.000301	1.73	0.083	-6.8E-05	0.001112
LNPSAM	0.000457	0.000488	0.94	0.349	-0.0005	0.001413
LNREX	-0.00148	0.000498	-2.97	0.003	-0.00245	-0.0005
WSAM L1.	-0.03478	0.201184	-0.17	0.863	-0.42909	0.359537
_cons	0.000805	0.003728	0.22	0.829	-0.0065	0.008112
RMSE	0.000294		R-sq	0.750		

6.6.3 Elasticities

The restricted models were subsequently used to derive the expenditure and price elasticities. Two sets of price elasticities can be calculated, namely the uncompensated and compensated price elasticities. The uncompensated price elasticities were derived from the Hicksian demand curve, and therefore it did not take into account the income effect. It only accounted for the substitution effect (c.f. 6.2), because of price changes. The compensated price elasticities corresponded with the Marshallian demand curve and took both the income and substitution effects into account. Thus, it is the observable change in demand when there is a change in price.

The expenditure elasticity was calculated as follows (using the definition of the coefficients as described in Equation 6.5) (Han *et al.*, 2006):

$$\eta_i = \left(\frac{\beta_i}{w_i} \right) + 1$$

The uncompensated own price and cross price elasticities are shown together with the expenditure elasticities as calculated from the restricted static LA-AIDS model. The own price elasticity was calculated, using the coefficients as described in Equation 6.5 (Han *et al.*, 2016):

$$e_{ii} = \left(\frac{r_{ii}}{w_i} \right) - \beta_i - 1$$

The uncompensated cross-price elasticities were calculated according to Han *et al.* (2016):

$$e_{ij} = \left(\frac{r_{ij}}{w_i} \right) - \beta_i \left(\frac{w_j}{w_i} \right)$$

Table 6.11: Expenditure and uncompensated price elasticities – static model

	Expenditure elasticities	Uncompensated price elasticities					
		Asia	Europe	North America	Oceania	South America	Africa
Asia	0.8307*	-1.0801*	0.0999*	0.0093*	-0.00799*	-0.0118*	0.1599
Europe	0.6478*	0.0869*	-1.0443*	0.0973*	0.01964*	-0.0224*	0.2152*
North America	0.7341*	0.0619*	0.7786*	-1.9536*	-0.05868*	0.2812*	0.1565*
Oceania	1.0920*	-0.1925*	0.5320*	-0.2238*	-0.87841*	0.1121*	-0.4414*
South America	0.6027*	-0.2787*	-0.8137*	1.2715*	0.13854*	-0.8939*	-0.0265*
Africa	1.0930*	-0.0045	-0.0212*	-0.0025	-0.00266*	-0.0020*	-1.0602*

* $p < 0.05$

Table 6.11 shows firstly that only Africa and Oceania could be considered income elastic destination, in other words any changes in price has a larger effect on the arrivals to these destination. All the other continents had expenditure elasticities less than unity. An increase in income in Africa would, therefore, benefit tourism to Africa and Oceania more than it would benefit other destinations. As to price elasticity, the uncompensated own price elasticities (indicated on the diagonal) were all negative, as expected according to demand theory. All the own price elasticities are also significant. Considering only substitution effects, Oceania is the most price inelastic destination, while North America is the most price elastic (>1). Europe is the closest to unitary elasticity, followed by Africa and Asia. An increases in effective prices in any of the continents will lead to a decline in tourism, and will affect Asia, Europe, North America and Africa, more significantly than Oceania and South America. When the cross-price elasticities are considered, complementary and substitute destinations are identifiable. A positive elasticity indicates that destinations are substitutes, while a negative elasticity indicates complementary destinations. Substitute destinations for African tourists (when only considering substitution effects) included (i) Asia and Europe; Asia and North America (ii) Europe and North America (iii) North America and South America. Complementary destinations according to the uncompensated cross price elasticities included the following: (i) Asia and Oceania; Asia and South America; (ii) Europe and South America; (iii) North America

and Oceania (iv) Oceania and Africa; (v) Africa and South America. The compensated own price and cross price elasticities were calculated by applying the coefficients as specified in Equation 6.5 (Han *et al.*, 2006):

$$e_{ii}^* = \left(\frac{r_{ii}}{w_i} \right) + w_i - 1$$

$$e_{ij}^* = \left(\frac{r_{ij}}{w_i} \right) + w_j$$

The compensated price elasticities of the static model are presented in Table 6.12. These elasticities did not only take the substitution effect of an increase in prices into account, but also the income effect because of a loss in purchasing power. Similar to all the uncompensated own price elasticities, the compensated own price elasticities were all negative and significant, per demand theory. All destinations, excluding Asia and North America, were price sensitive. Africa is considered the most price inelastic destination, while North America is once again considered the most price elastic for African tourists.

Table 6.12: Compensated price elasticities – static model

	Compensated price elasticities					
	Asia	Europe	North America	Oceania	South America	Africa
Asia	-1.0016*	0.2126*	0.0232*	-0.0043*	-0.0087*	0.7787*
Europe	0.1481*	-0.9564*	0.1081*	0.0226*	-0.0200*	0.6977*
North America	0.1313*	0.8782*	-1.9414*	-0.0554*	0.2839*	0.7033*
Oceania	-0.0893*	0.6801*	-0.2055*	-0.8735*	0.1161*	0.3720*
South America	-0.2217*	-0.7319*	1.2816*	0.1413*	-0.8917*	0.4225*
Africa	0.0988*	0.1271*	0.0157*	0.0023*	0.0021*	-0.24599*

* $p < 0.05$

Again, the cross-price elasticities can be used to identify substitute and complementary destinations. Substitute destination include: (i) Asia and Europe; Asia and North America (ii) Europe and North America; Europe and Oceania (iii) North America and South America, and (iv) Oceania and South America. While most destinations were substitutes when income and substitution effects were considered, some complementary destinations exist, namely (i) Asia and Oceania; Asia and South America; (ii) Europe and South America, and (iii) North America and Oceania. A similar process was followed to calculate the elasticities for the dynamic AIDS model. Since the dynamic AIDS model is an autoregressive model that assumes partial adjustment towards the long-term desired level of arrivals, both short and long run elasticities can be calculated.

Table 6.13: Short run expenditure and uncompensated price elasticities – dynamic model

	Expenditure elasticities	Uncompensated price elasticities					
		Asia	Europe	North America	Oceania	South America	Africa
Asia	0.9108*	-1.4180*	0.3423*	0.0238*	-0.0080*	-0.0017*	0.1614
Europe	0.8062*	0.2482*	-1.1528*	0.0190*	0.0294*	-0.0123*	0.0716*
North America	0.8072*	0.1446*	0.1543*	-1.2866*	-0.1931*	-0.0217*	0.1113*
Oceania	1.2222*	-0.1974*	0.8298*	-0.7237*	-0.7277*	0.2624*	-0.5184*
South America	0.6000*	-0.2838*	-0.7673*	1.1878*	0.1429*	-0.8750*	-0.0045
Africa	1.0516*	0.0072	-0.0203*	-0.0016	-0.0024*	-0.0017*	-1.0329*

* $p < 0.05$

Table 6.13 shows the expenditure elasticities as well as the uncompensated price elasticities. The results indicate that only Oceania and Africa are considered luxury destinations since the expenditure elasticity is more than unity. Therefore, increases in income will benefit tourism to these continents more. Regarding price elasticity, the uncompensated own price elasticities (indicated on the diagonal) are all negative, as expected and was therefore in line with demand theory. All the own price elasticities are also significant. Considering only substitution effects, Asia is the most price elastic destination, while Oceania is the least price sensitive. An increase in effective prices in all continents would, therefore, lead to a more than proportional decline in tourism to all destinations, except South America and Oceania. Substitute destinations for African tourists (when only considering substitution effects) included: (i) Asia and all destinations, except Oceania and South America; (ii) Europe and North America; Europe and Oceania, and (iii) Oceania and South America. The complementary destinations included: (i) Asia and Oceania; Asia and South America (ii) Europe and South America (iii) North America and Oceania; (iv) Oceania and Africa, and (v) South America and Africa.

Table 6.14: Short run compensated price elasticities – dynamic model

	Compensated price elasticities					
	Asia	Europe	North America	Oceania	South America	Africa
Asia	-1.3320*	0.4659*	0.0390*	-0.0039*	-0.0089*	0.8399*
Europe	0.3244*	-1.0434*	0.0325*	0.0330*	-0.0187*	0.6722*
North America	0.2208*	0.2638*	-1.2731*	-0.1895*	0.2654*	0.7126*
Oceania	-0.0819*	0.9957*	-0.7033*	-0.7222*	0.1197*	0.3920*
South America	-0.2271*	-0.6859*	1.1978*	0.1456*	-0.8728*	0.4425*
Africa	0.1066*	0.1224*	0.0160*	0.0024*	0.0022*	-0.24955*

* $p < 0.05$

The results in Table 6.14 indicate the short-run compensated price elasticities. Relating to own price elasticity, the compensated own price elasticities reveal similar results to the uncompensated results in Table 6.14. Asia, North America and Europe are the most elastic once income effects were accounted for. Africa is the most price inelastic destination for African tourists. Substitute destinations for African tourists (when considering both income and substitution effects) included: (i) Africa and all destinations (ii) Asia and Europe; Asia and North America (iii) Europe and North America; Europe and Oceania (iv) North America and South America, and (v) Oceania and South America. Complementary destinations according to the compensated cross price elasticities included the following: (i) Asia and Oceania; Asia and South America; (ii) Europe and South America; and (iii) North America and Oceania.

Before the long-run elasticities were calculated, the long-run coefficients had to be determined. As this dynamic model assumes a partial adjustment towards the long-run desired levels of African tourist arrivals, the adjustment term was given by δ_i in Equation 6.8. To determine the value of δ_i , the coefficient of the lagged dependent variable (the autoregressive term) was used, and the coefficient was subtracted from 1. After the value of δ_i had been determined, the short-run coefficients were divided by δ_i to give the long-run coefficients for each equation in the system. From these long-run coefficients, the elasticities were calculated using the same formulas as above.

Table 6.15: Long-run expenditure and uncompensated price elasticities – dynamic model

		Uncompensated price elasticities					
	Expenditure elasticities	Asia	Europe	North America	Oceania	South America	Africa
Asia	0.8692*	-1.6129*	0.5985*	0.0501*	-0.0076*	-0.0118*	0.0768
Europe	0.6558*	0.3554*	-1.2714*	0.0376*	0.0279*	-0.0209*	0.0856*
North America	0.5799*	0.2035*	0.2538*	-1.6244*	-0.1830*	0.2536*	0.2931*
Oceania	1.2106*	-0.2797*	1.4974*	-1.5723*	-0.7419*	0.1113*	-0.2368*
South America	0.6135*	-0.4338*	-1.4051*	2.5798*	0.1355*	-0.8792*	-0.5973*
Africa	1.0894*	0.0129*	-0.0306*	-0.0025*	-0.0022*	-0.0016*	-1.0556*

* $p < 0.05$

Table 6.15 shows the long-run expenditure elasticities as well as the long-run uncompensated price elasticities. The own price elasticity was again all significant and negative. Oceania and South America is the least price elastic destination, while North America and Asia are the most price sensitive. Substitute destinations for African tourists (when only considering substitution effects) included: (i) Asia and all destinations, except Oceania and South America; (ii) Europe and North America; Europe and Oceania (iii) North America and South America; North

America and Africa; and (iv) Oceania and South America. Complementary destinations according to the compensated cross price elasticities comprised the following: (i) Asia and Oceania; Asia and South America (ii) Europe and South America; (iii) North America and Oceania (iv) Oceania and Africa; and (v) South America and Africa.

Table 6.16: Long-run compensated price elasticities – dynamic model

	Compensated price elasticities					
	Asia	Europe	North America	Oceania	South America	Africa
Asia	-1.5308*	0.7221*	0.0653*	-0.0035*	-0.0085*	0.7553*
Europe	0.4316*	-1.1824*	0.0511*	0.0315*	-0.0179*	0.6861*
North America	0.2798*	0.3633*	-1.6147*	-0.1793*	0.2566*	0.8944*
Oceania	-0.1642*	1.6632*	-1.5519*	-0.7365*	0.1158*	0.6736*
South America	-0.3771*	-1.3237*	2.5899*	0.1382*	-0.8769*	-0.1504*
Africa	0.1123*	0.1121*	0.0151*	0.0025*	0.0022*	-0.2442*

* $p < 0.05$

The results of the long-run compensated elasticities in Table 6.16 indicates the own price elasticity, Africa is considered the most inelastic, while North America and Asia are again considered the most price elastic destinations. This implies that an increase in prices in these destinations would lead to a decrease in revenue earned from tourism. For the remaining destinations, increased prices would cause an increase in revenue from African tourists in the long-run. In the long run, when taking both income and substitution effects into consideration, substitute destinations for African tourists included (i) Africa and all other destinations, except South America; (ii) Asia and Europe; Asia and North America (iii) Europe and North America; Europe and Oceania (iv) North America and South America; and (v) Oceania and South America. Complementary destinations according to the compensated cross price elasticities included the following: (i) Asia and Oceania; Asia and South America; (ii) Europe and South America; and (iii) North America and Oceania.

6.7 Findings and implications

In this study, the AIDS model was applied to investigate tourism flows from Africa to other continents, namely Asia, Europe, North America, Oceania and South America, but also in Africa. Studies on African outbound tourism are scarce and little is known about the preferences of African tourists. This research, therefore firstly contributed to literature on Africa, as well as, empirically investigated the diaspora of African travellers.

In terms of destination preference, intra-African travel is the most prominent, followed by trips to European countries (France, United Kingdom, Italy, Germany, and the Netherlands) and

Asian countries (Saudi Arabia, China, Turkey, and India). North American (United States of America and Canada) trips are gaining popularity, however the growth is slow. African arrivals to Oceania and South America are similar, however, South America (Brazil, Cuba, Chile, Peru, and Ecuador) is showing an upwards trend, while Oceania's (Australia and New Zealand) arrivals are decreasing.

Possible reasons for the arrival patterns to certain regions might be similar, such as the case with religion (Catholicism and Europe or Islam and Asia), however the underlining motives are not entirely clear. Arrivals can be ascribed to various reasons, however, in terms of European destinations, colonial ties and similar language might influence African arrivals. While African arrivals to Asian destinations are attributed due to religious affiliation, especially Islam and the important role of pilgrimage. Moreover, Asian destinations might benefit from trade agreements such as BRICS. Once more colonial ties might influence African arrivals to North America, especially the USA from predominantly West African countries and Liberia, due to the Atlantic slave trade. When looking at Oceania, and considering that South Africa is the largest travel market within Africa, visiting friends and family who have immigrated to Australia and New Zealand, as well as, the influence of sport (rugby) on travel behaviour could possibly account for the arrivals to the region. Additionally, trade agreements could possibly benefit arrivals to South America, with BRICS and South-South Partnering for economic development and growth.

Investigating the uncompensated price elasticities in both the static and dynamic (short- and long-run) revealed comparable results. In all three of the cases the majority of the substitutable destinations were the same, with the exception of North America and South America in the short-run dynamic model, where the sign of the coefficient was negative instead of positive, as indicated in the static and long-run dynamic results. Moreover, the only other difference was the Africa and Asia price elasticity, where in the static model it indicated a negative coefficient instead of a positive one. In terms of the compensated price elasticities, the static and dynamic (short- and long-run) models revealed the exact same results in terms of the destination substitutability, with the only exception being the South America and Africa elasticity in the dynamic long-run model. In terms of the complementary destinations, the results also revealed more similarities than differences in all the models. With regard to elasticities, the results of this study confirmed that expenditure and price elasticities are useful to investigate outbound tourism flows (Han *et al.*, 2006:9; Koike & Yoshino, 2014:134). Other studies also made use of the exchange rate elasticities (Garin-Munoz & Amaral, 2000:529; Saayman & Cortés-Jiménez, 2013:555). In terms of the uncompensated models (Table 6.11, Table 6.13, and Table 6.15) the price elasticities revealed that the static and dynamic long-run models identify

North America as the most income elastic, followed by Asia, Europe, and Africa while in the dynamic short-run Asia is the most price elastic, followed by North America, Europe, and Africa. This implies that as income increases in Africa that North America, Asia and Europe and other African destination will benefit from arrivals.

Substitute destinations were identified. The uncompensated results identified that Africa is substitutable in both the uncompensated dynamic short- and long-run results. Asia was substitutable, however in the short-run static model Africa was not substitutable with any destinations. This indicates that Asian destinations will benefit from African arrivals, if prices in Asia decrease, while income in Africa increases. The uncompensated results confirm that in the majority of the models Asia was substitutable with Europe and North America, indicating that increased prices in Asia will result in increased arrivals to Europe or North America. Possible reasons for this might be due to the exchange rate being similar to either Europe or North America.

European substitute destinations include Asia, North America and Oceania, this has previously been identified, with the exception of Oceania, however, European exchange rates and those of Oceania are also very similar. Further explanations could include immigration, and subsequently visiting friends and family. North American results are similar to the above, however in the short-run static and long-run dynamic models, South America is included as a substitute destination, and could possibly be due to trade such as BRICS. The results of Oceania echo that of North America, in that South America is considered substitutable, this could possibly also be trade related, due to South-South Partnering. The compensated models confirm the uncompensated result with only minor differences, such as Africa being substitutable with all destinations, and not only Asia. This indicates that African arrivals to all destinations will increase as income in Africa increases. This further reveals that Africa can potential become an emerging travel market to the rest of the world, permitting income changes throughout the continent.

In terms of the complementary destinations the results are similar from the analysis. The static results revealed Asia to be complementary to Oceania, which makes sense since South Africa is the largest market in the African series, with most flights to Oceania being via Asia. The compensated results for Asia also identified South America as complementary, which again could mean that Asia is the travel hub to South America since little direct flights are available, only more recently had direct flights between Johannesburg and Sao Paulo become available. The other results were all similar in terms of the uncompensated and compensated models. Europe and South America are considered complementary, again this might be a travel route

indication, since more European based airlines fly to South America. North America and Oceania are considered complementary, this could again be due to the proximity of the two regions to each other. The short- and long-run models are similar in terms if destination being complementary to one another. This does indicate that there are certain flows via certain regions to get to specific destinations. It might be useful to investigate the possibility of creating African hubs for direct flight between destinations such as South America and Oceania, this furthermore explains the low amount of visitors to these regions, as travel costs and time would deter arrivals. Complication in interpreting substitute and complementary destination in terms of arrivals, are evident, since the number of arrivals are more than the sum of all the parts allocated to price or income elasticities. However, this does give a glimpse into the manner in which the African travel market reacts to price and income variables.

6.8. Conclusion

This study aimed to investigate to which destinations Africans travel. Descriptive statistics revealed that Africans travel mostly to Europe, followed by Asia and North America. Increased economic growth rates and welfare in Africa will benefit all destinations; however, in the short run Asia will benefit most. The use of the AIDS model in determining outbound tourism from Africa was effective, but studies are scant and a more in-depth analysis might reveal interesting findings. Considering the current method, the use of compensated and uncompensated elasticities in short and long-run procedures did offer insight, and differences were noticeable. The time range of the data was adequate; though a more extended time frame would be useful to investigate the robustness of growth. A limitation of this research, which could be addressed in future, is determining African arrivals to individual countries and not regions as is the case of this study. This study illustrated that Africa is a viable market for international travel outside the African continent. Still, income and price elasticity greatly influences the travel flows. Findings were inconclusive on the motives behind the travel behaviour. Then again, common characteristics between Africa and Europe; and Africa and Asia could possible explain the flow. From a methodological point of view, it was revealed that cross-price elasticities determine these flows. Moreover, since international travel from Africa constitutes roughly 3% of global international travel, only 30% travel was beyond African borders (International Air Travel Association [IATA], 2014:32). This could lead to the assumption that Africa is an untapped market. Yet, for the majority and not just the select few of Africans to travel internationally, many socio-economic (income, employment) concerns should be addressed. The next chapter concludes the main findings of the study and presents the recommendations on Africa's potential as a global tourism role-player.



CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

“What you give you get, ten times over” – Nigerian proverb

7.1 Introduction

The importance of this study is based on the competitive nature of the tourism industry in Africa. Little empirical investigation into Africa's developing tourism industry has been completed, especially compared to other destinations/regions/continents. Understanding the important role of destination competitiveness, and its ability in shaping and re-shaping industries, necessitates investigating competitive advantage as an avenue for sustainable development. This is especially true in developing economies such as Africa where tourism and conservation efforts are tied to, and battling against rapid and unsuitable urbanisation and industrialisation. Yet, certain developments are necessary for tourism to flourish. As development encourages visitors to travel to Africa, consequently increasing tourism competitiveness, as well as, the myriad of social and economic benefits associated with tourism.

The goal of this study was to explore Africa's potential as a global competitive destination and travel market, by investigating the determinants that influence inbound, intra-African and outbound tourism arrivals to obtain a holistic view of Africa's potential as a competitive tourism role player, globally. Empirically little is known of African tourism arrivals, which necessitated this investigation. Africa is also a unique case study, and although it poses many difficulties, the rationale for investigating the potential of tourism for the continent is ratified. Different methods and techniques have been employed in this study to evaluate the competitiveness of Africa. Objectives were outlined in Chapter 1, and subsequently these objectives were addressed in the chapters as indicated below.

The first objective was to evaluate the concept of competitiveness and the key components of destination competitiveness in order to explore the differences between competitive and comparative advantage. This objective was achieved in Chapter 2 of the study. The second objective was to examine the complexity of, and conditions in various regions of Africa that influence Africa as a competitive tourism destination for both inbound, intra-African travel as well as outbound tourism. This objective was achieved in Chapter 3 of the study. The third objective was to investigate the determinants that influence inbound tourism to Africa as a

continent and also various African regions, by means of a panel data approach. This objective was achieved in Chapter 4 of the study.

The fourth objective was to explore the determinants impacting intra-African tourism based on trade theoretical approach, in particular on the following: the gravity model; Linder's hypothesis; and the comparative advantage theories. This objective was achieved in Chapter 5 of the study. The fifth objective was to investigate outbound African tourism using an Almost Ideal Demand System to understand African tourists' travel patterns and how changes in income and prices around the globe have an influence on these patterns. This objective was achieved in Chapter 6 of the study. The final objective was to formulate conclusions on the current factors that prohibit Africa from becoming a global competitive tourism role player, based on the empirical results, and to make recommendations on how to improve Africa's tourism competitiveness. This is the goal of this chapter (Chapter 7).

The layout of this chapter starts with a short personal perspective through the lens of a journey and follows with the conclusions of each chapter separately.

7.2 Personal journey

How do you eat an elephant? Bit by bit and that is, only one bite at a time. A PhD thesis is handled in a very similar manner. Identifying a thesis topic might be a daunting task for any academic. Fortunately, experience often dictates research preference and interest. When I first embarked on this journey, the topic captivated my imagination. Subconsciously I never thought about Africa the way I think about it now. Although I am a descendant of Europeans, I know that I am African. The appreciation and love for Africa flows through my veins and warms my beating heart. Unknowingly at the time, this topic chose me long before I ever imagined its existence. Anyone who has ever been exposed to Africa, in any capacity, be it literature, movies or travelling to this vibrant landscape of anomalies, would understand the captivating beauty that Africa provokes.

Recalling my childhood and adolescent years, movies such as "Out of Africa", "Ghost and the Darkness", "Sometimes in April", "I dream of Africa", and many more had an immense influence on my views of Africa. Discovering the mysteries that Africa conceals would take multiple lifetimes to uncover, whereas appreciating its majesty takes but a fleeting moment. These daring and inspirational stories captivated my imagination, and fostered a love for the continent. Generally, the narrative involved a long perilous voyage to overcome incredible odds, which I like to think resembles the journey of writing a thesis. Therefore, to overcome

the odds it is necessary to have a well-grounded support system, to lift the spirits when uncertainty weighs one down.

This journey and experience has taught me that obtaining data from secondary sources does not mean smooth sailing and that effort is needed to ensure that data is coherent and appropriate. The measures one needs to take are often time consuming and various sources are needed to assist in explaining or contributing to holistic and balanced data. Moreover, analysing data is a time consuming activity where models are run and re-run multiple times to ensure the most unbiased results. Here precision and experience is vital in predicting how data would likely react during modelling, and what should be expected from the results obtained. The results self are often notoriously difficult to interpret to emanate appropriate recommendations. Once appropriate recommendations are identified, dictating the recommendations into useful proposals for industry or government agencies is a sought after skill. At all times it is important to remember that the “golden thread” should be present for the duration of the study. This is often where the role of promoters in guiding the student is vital. Conclusively, the trials and challenges faced when writing a thesis are strenuous and demanding of any individual and only after the attempt was evaluated would the true fruits of labour be rewarded. Karen Blixen infamously said: “Here I am, where I ought to be”, and these words ring true for me today, as the first time I heard them. Africa is my home, and I will cherish it all the days of my life. With this in mind, I dedicate this thesis to Africa and all her inhabitants, so that together we can usher in a new dawn of African prosperity and pave the way for future generations.

7.3 Conclusions

Conclusions are made with regard to each objective as outlined in Chapter 1. Each objective was addressed in a specific chapter in this study and will be clarified here. In total six objectives were formulated for this study.

7.3.1 Conclusions with regard to Objective 1

The first objective aimed to evaluate the concept of competitiveness and the key components of destination competitiveness in order to explore the differences between competitive and comparative advantage. This objective was addressed in Chapter 2. In a tourism context, destinations have the ability to be classified as commercial assets, similar to products, which have a propensity to satisfy visitor needs. Destination competitiveness could be expressed as the demand for a particular destination within the marketplace (global destinations). However, destination demand relies on many factors that contribute to destination competitiveness. Destinations include various types ranging from cities/towns, regions, provinces, countries,

micro/macro regions or continents (c.f. 2.1). The factors are greatly associated with comparative and competitive advantage, as indicated in trade theory.

Comparative advantage is based on the factors of production and their associated costs. A destination's factor endowments, including natural resources, are employed during the production of goods and services. The advantage that a nation has over another nation depends on the use of factor endowment. Tourism products and services are also influenced by the factor endowments of a particular destination, and could be described as destination attributes such as climate, location, and natural and cultural resources of the destination. However, many destinations have the ability to offer similar destination attributes. Moreover, tourism is highly dependent on visitor interaction. Analysing destination attributes/factor endowments provides an overview of tourism in terms of the economic structure and flexibility of a destination (c.f. 2.3). Competitive advantage advocates for the factors inherent to an industry. Here an industry's prosperity is dependent on specialisation and not the inherited factor endowments as favoured by traditional economics or the comparative advantage theory. Furthermore, competitive advantage promotes innovation and capacity development within an industry to harness competitiveness, especially concerning the productivity of capital and labour. Productivity is the efficiency of allocating and employing resources to ensure a certain output. However, productivity goes beyond ratio-based inputs and outputs. In tourism, competitive advantage refers to the manner in which resources are allocated regarding the value, quality, service, brand efficiency, and experience. Clearly destination competitiveness is a result of synergy between competitive and comparative advantage. The importance of skilfully employing comparative (factor endowment) advantage factors to create competitive advantage is crucial since many destinations offer similar comparative advantage factors (c.f. 2.4).

The creation of destination experiences relies on elements associated with individuality, authenticity, narrative, multi-sensory perception, contrast and interaction contribution to a destinations competitiveness. Hence, destination competitiveness is a destination's ability to increase tourism expenditure, increasingly attract visitors, while providing a satisfying and memorable experience, doing it in a profitable way without affecting the wellbeing of the local residents or negatively impacting the natural capital (factor endowments) of the destination. Undoubtedly destination competitiveness also relies on enhancing a destination's attractive features by delivering quality, innovative and efficient services more capably. This is complicated by substitutability and parity of other destinations, offering similar product/services. The importance of destination branding in competitiveness should not be under-valued, due to the promotion of attractive features, core resources and attractors as

well as destination attributes. In addressing destination competitiveness the use of trade theories have been employed to identify factors that contribute towards destination competitiveness, resulting in the development of a destination competitiveness model (see Crouch & Ritchie, 1995, 1999; Ritchie & Crouch, 2003; Crouch, 2011) (c.f. 2.5).

Therefore, the competitive advantage deficit could be due to adaptable forces or destination management constraints. This creates opportunities/strengths for certain destinations, but if left unmanaged could result in challenges/threats for others. Early economic trade theories contributed to the development and understanding of competitiveness. However, this study finds that current destination competitiveness theory and models are inadequate in explaining destination competitiveness in a developing country/continent context (c.f. 2.6). Summarising this objective, previous literature maintains the importance of destination competitiveness, as it relates to tourism. Additionally, destinations are equally as valuable in terms of marketability as products. Moreover, creating synergy between comparative and competitive advantage is contended since it identifies possible opportunities/strengths and could address possible challenges/weaknesses.

7.3.2 Conclusions with regard to Objective 2

The third chapter of this study addressed the second objective of the research, namely to examine the complexity of, and conditions in, various regions of Africa that influence Africa as a competitive tourism destination for inbound, intra-African travel, as well as outbound tourism. Undoubtedly economies and countries in Africa are classified as developing and to a greater extent less urbanised. Recently some African states have seen rapid economic growth. Additionally, Africa boasts abundant natural resources concerning global oil reserves (12%), gold (40%), platinum and chromium (80-90%). Wealth and resource abundance seems to be at opposite ends of the spectrum since Africa approximately holds 2% of global GDP to support 13% of the global population (c.f. 3.2.2).

Furthermore, Africa comprises substantial concentrations of natural resource endowments. Africa's composition from a geographic, political, social or economic perspective influences global opinion regarding Africa's success. Geographically the continent consists of 54 individual countries, distributed over five geographic regions, across the second largest territory globally. Politically, the continent recognises the historic associations with slave trade, conquest and colonisation of Africa, to present day conflicts. Socially the continent experiences constraints due to poverty, lack of education, social inequality, and safety and security concerns. Economically the continent signifies vast discrepancies in terms of economic stability and growth, even if only in a few countries. Attributed with qualities that

foster tourism development such as price competitiveness, affinity for tourism, abundant natural and cultural resources, as well as efforts towards environmental sustainability, strengthen Africa's potential. Over the past two decades significant investment, growth and stabilisation in economic activities, government investment (education reform, feeding schemes, and access to health care), and trade policy alternation and integration was realised (c.f. 3.1). Africa's tourism industry complexity is challenging due to tourism's sensitivity to internal volatility and external forces. This is due to the integrated nature of tourism concerning products and services. Contrary to other products, tourism lacks traditional production functions, which complicates tourism's measurability due to no consistent output measures and no common structures across destinations. Additionally, few studies have determined Africa's tourism from a multi-dimensional (inbound, intra-African and outbound travel) perspective (c.f. 3.2.1)

Tourism in Africa is a lucrative opportunity attributable by the potential to increase inclusive economic growth, exercise rapid expansion, and dynamically reduce poverty and create jobs (c.f. 3.2.2). Moreover, tourism in Africa also needs to address social exclusion, income inequality, and infrastructure shortages, while considering social, political, and environmental risks. Furthermore, Africa's lack of regional cooperation, especially regarding visa regulations, inhibits intra-African and pan-African tourism development. The dependence on traditional source markets, such as Western Europe and the United States, needs to be re-evaluated since the influx of tourists from East and Central Europe, South America, and Asia are becoming prominent. This study finds that emerging markets and economies have the ability to enhance Africa's tourism competitiveness. Inbound tourism to Africa refers to travel from other continents to Africa, and historically Western Europe and the United States arrivals constituted the majority, which could be due to colonial ties and slave trade. Africa is home to 34 of 48 LDC's culminating in over 70% of the world's poorest countries (c.f. 3.2.3).

Regarding outbound travel (trips from Africa to other continents) the similarities with inbound travel are purely in the opposite directional flow. Income from Africans would influence travel and the weaker exchange rates will determine destination choices and even length of stay. Understandably outbound tourism from Africa accounted only 3% of the global air service, of which only 30% travelled beyond the African continent (c.f. 3.2.4). The analysis of outbound tourism relates to Objective 4.

Intra-African travel refers to trips taken between African countries and regions, and here trade fosters tourism flows. Compared to other regions, intra-African trade is much lower, resulting in high transaction costs, complicated immigration procedures, limited capacity of border

officials, costly import and export policy procedures, lack of investment in trade associations, increased transport costs and logistics, which influences regional tourism. Additionally, non-tariff barriers influence employment opportunities in Africa, moreover, potentially increasing competitiveness and decreasing Africa's reliance on western economies.

In terms of legislative and policy administration, each African region and country is mostly independent and self-governed. The African Union and regional economic communities (REC's) encourages spontaneous cooperation. The African Union recognises eight REC's, which are established under separate regional treaties, with some countries overlapping in multiple REC's. Regional economic integration (REI) which is fostered by the REC's mainly regulates visa and travel policies, cross-border trade, employment and knowledge exchange. Ultimately this greatly influences intra-African tourism between neighbouring and regional countries, as well as pan-African travel.

Concerning regional economic integration (REI), which describes the inter-dependence of economies from different countries within the same region of the continent, special attention to free trade areas, custom unions, common markets and monetary unions should be given. In addition, political integration promotes cross-border trade and development within REC's, advocating for symbiotic functioning, performance, and increased competition. Tourism's catalyst effect is ideal for integrating economies both nationally and regionally, securing job creation, increasing per capita income, contributing to infrastructure development and diversifying economies. Moreover, REI partially addresses slow domestic progress and tedious market access negotiations to accelerate trade agreements between participating countries. In Africa, the REI as negotiated by the RECs and advocated by the African Union ascribed three broad goals namely: (1) Trade and market integration; (2) Macroeconomic policy convergence, and financial and monetary integration; and (3) Peace, security, stability and governance (c.f. 3.2.5.1).

Previous research suggests that trade relations eases travel. The importance of regional economic integration and regionalisation is therefore advocated as a possible solution to increase intra-African travel (c.f. 3.2.5). Intra-African travel relates to Objective 5. This study confirms literature findings concerning 'trades ability' to promote tourism in the short-run and contributes to economic growth theory. Furthermore this study advocates the sentiments that Africa should trade more within Africa, to limit the fragmented state of African trade. During 2014 intra-African trade accounted for 18%, while intra-regional trade indicate more robust figures in Europe (69%), Asia (52%) and North America (50%). Intra-African trade is particularly influenced by the lack of infrastructure (electricity, transport and Internet) which

hampers industrialisation. Furthermore, a lack of visa openness makes travelling within Africa difficult for Africans, with nearly 55% of Africans requiring visas to travel within the continent. This could potentially be addressed by enhanced trade. Regional economic integration (REI) is the principal objective of regional economic communities within Africa, by means of trade and market integration, macroeconomic policy, financial and monetary integration, free movement of people, and peace, security, stability and governance, and harmonisation of sectoral policies (c.f. 5.3.2).

In terms of the globalised economy of the world, Africa should initially focus on regionalisation, which is the integration of countries to ease and reduce costs of transport and communication and lessen artificial barriers that influence the flow of goods, services, capital, knowledge and people across borders. Benefiting from regionalisation and regionalism provides economic stability within the region. Firstly, static effects such as production proficiency and public welfare, and secondly dynamic effects such as prolonged growth rates of member countries are encouraged (c.f. 3.2.5.2). Africa's service sector is prominent, however service export, which accounts for tourism, is still relatively low compared to total exports. Tourism is a traditional travel export, differentiated from other service exports since consumers relocate to the providers. In relation to inbound travel spending, northern, eastern and southern African destinations are prominent travel export earners, and a significant positive relationship between international tourism exports and economic growth is evident. Therefore investigating Africa's regions and tourism conditions may provide insight into harnessing further growth (c.f. 3.3.1).

Each region is presented with an overview and tourism conditions, especially concerning the tourism sector and economic challenges each region faces. Northern Africa (c.f. 3.4.1), Eastern Africa (c.f. 3.4.2), Southern Africa (c.f. 3.4.3), Central Africa (c.f. 3.4.4), and Western Africa (c.f. 3.4.5) are evaluated. Summarising the findings and sentiments this study supports the infallibility of northern and southern Africa in attracting more arrivals, thereby contributing to more prosperity. Northern Africa might attribute to more arrivals, due to close proximity with Europe and the Middle East, while Southern Africa offers a rich diversity in terms of tourism offerings. Common barriers within Africa relate to infrastructure deficiencies. Arrivals to the remainder of Africa, excluding northern and southern states, are worrisome. Recently, foreign investment by China was starting to outperform traditional sources, especially in countries such as Angola, South Africa, Sudan, Nigeria, and Egypt. Sino-African trade reached \$126.9 billion in 2010 and \$300 billion in 2015 (c.f. 3.5).

In conclusion, Africa holds vast untapped potential in increasing tourism development, and regional economic integration can relieve much of the financial tensions faced on the continent. African states need to prioritise tourism at a national, regional, and intra-African level to ensure sustainable growth of the industry and to benefit holistically from the opportunities tourism creates.

7.3.3 Conclusions with regard to Objective 3

The fourth chapter of this study is an empirical investigation of the third objective of the research, *id est* to investigate the determinants that influence inbound tourism to Africa as a continent and also various African regions by means of a panel data approach. Theories related to this objective are discussed in Chapter 2. A brief overview of the theories that contribute to destination competitiveness is provided. Destination competitiveness, as a function of demand, is a valid expression and supported by trade theory. In advancing experience and the positioning of destinations as a viable opportunity to satisfy visitor needs, destinations should emphasise destination attributes (factor endowments) and enhance with superior industry specialisation (competitive advantage factors). Additionally, identifying traditional determinants that contribute to destination competitiveness is essential. Therefore theories such as competitive advantage and comparative advantage, based on trade theory perspectives, provide ample comprehension in the demand of tourism. Richie and Crouch (2011) subsequently developed this into tourism demand theories.

Theoretically, inbound tourism demand depends on the following: Income as it relates to ones propensity to travel; Exchange rates are often in favour of the visitor; African destinations are often price competitive; Travel costs depend on origin and destination; Visa regulations are supplementary government income; Safety and security components are often accounted for; Health and hygiene conditions are considered; A range of infrastructure needs are assessed; and Poverty prevalence might deter arrivals. In recent years a steady growth in Africa's tourism industry has been observed. Yet, the growth is limited to selected African countries. Since tourism is a catalyst for economic and social development, and the subsequent benefits such as poverty alleviation, employment generation, and creation of, and support for, entrepreneurship and small enterprises, increasingly makes tourism a lucrative opportunity. Moreover, for African tourism to flourish an understanding of tourism flow determinants are necessary. Economic drivers and variables such as income from the origin country, price differentials, travel costs, and exchange rates are popular in determining arrivals. Furthermore outliers beyond economic variables are rarely identified. Previous literature indicates that variables such as exchange rate differentials are not the most significant determinant for

African tourism arrivals, but infrastructure, communication infrastructure and political and social stability are more significant (c.f. 4.1).

Tourism arrivals to Africa are one of the significant sources of foreign revenue reserves, accounted for by tourism receipts and the number of arrivals. Average observations indicate that Africa receives 56 million arrivals contributing to tourism export revenues of \$47 billion per annum. The majority of the arrivals and revenue are from traditional source markets, and subsequently colonisers of Africa. Although the tourism contribution is significant, compared to other regions, Africa is lagging behind. Additionally, inbound tourism is dependent on the welfare of source markets and trading partners such as Britain, Europe, and the United States. However, emerging trade partners such as Brazil, China, India, Russia, Taiwan and Thailand are becoming more prominent and could be considered as alternative source markets. China-Africa trade accounted for \$300 billion in 2015, besides China is considered the largest and most affluent travel market, a viable opportunity for African states and regions (c.f. 4.2). Sustainable tourism development in Africa based on economic-, fiscal, environmental and social sustainability should be aimed at. Aligning tourism development with the United Nations Millennium Development Goals and the African Union's Agenda 2063 could address much of the concerns that the African states and regions face. Some concerns involve regional integration, especially concerning cooperation, economic policies, infrastructure, research, and management. Other concerns include the infrastructure deficiencies in terms of power/electricity, transport, and communication which influences the tourism experiences (c.f. 4.2). Using ten years of data for 25 African countries from the UNWTO and, the World Bank, the significance of various factors that influence tourism to the continent were investigated. The data were further divided into regions, i.e. four northern African, seven eastern African, five western African, six southern African, and three central African states, to allow regional-specific investigation.

The method that was employed relied on panel data analysis to address the Objective. Panel data methods have certain advantages such as; increased sample size with better estimations, less biased estimations due to omitted variables, and the ease of testing two dimensions (cross-sectional and time-series) simultaneously. As previously mentioned, the panel consisted of 25 African countries, over a period of 10 years, Therefore the panel analysis required methods that could accommodate relatively large cross-sectional, and small time-series dimensions. As a result, the panel was modelled using the static fixed effects estimations (least square dummy variable [LSDV]), as well as the generalised method of moments (GMM) - for the large African panel only – and the bias-corrected LSDV as dynamic estimators (c.f. 4.4).

Table 7.1: Summary of inbound tourism determinants

		African Regions				
Determinants	Total Africa	Northern	Eastern	Southern	Western	Central
Total inbound arrivals (non-African)	+✓*	+✓*	+✓*	+✓*	+✓*	
Advanced country GDP	+✓*	+✓*			+✓*	
Relative CPI (CPIj/CPIi)	+✓*					+☑*
Incidence tuberculosis (per 100 000 people)	+☑*			+✓*	-☑*	+✓*
Safety and the rule of law (concerning crime prevalence)				+✓*		
Internet users (per 1,000 people)	+✓*	+✓*		+✓*	+☑*	+☑*
Urban population (percentage of total)		+☑*	-☑*			-✓*
Death rate, crude (per 1000 people)		-☑*	-☑*	-✓*	+☑*	-✓*
Terrestrial and marine protected areas (percentage of total territorial area)	+✓*			-☑*		-☑*
Terrestrial protected areas (percentage of total surface area)	+✓*				-☑*	-☑*
South African border variable				-☑*		
Landlocked country				-☑*		

✓-Dynamic results; ☑- Static results; +/- positive/negative variable; *significant

Table 7.1 is a brief summary of the results obtained for inbound tourism. The difference between regions is simplified in the illustration. Due to the nature of the data, the dynamic results are considered important since these address long-run variables. This research found that it is clear that each region differs. Accounting for Africa in total and all the regions, excluding central Africa, arrivals will increase due to habit formation. Southern Africa has the most dynamic results after entire Africa. This could be due to the region's fairly well developed infrastructure and tourism abundance. However, southern African states are burdened with tuberculosis and safety concerns. Yet, this does not seem to hinder arrivals. Central Africa has three dynamically confirmed variables, which might provide insight into the region. The regions tuberculosis incidents indicate decreased arrivals implying that the central African states need to address healthcare, this is underlined by the death rate. Urbanisation warrants a positive indicator, but central Africa might be underdeveloped resulting in a rural setting. This decreases arrivals, since more urbanised countries tend to offer more sophisticated

services. It is clear that most of the regions in Africa are experiencing different problems relating to tourism arrivals. Therefore each region and the continent must address these unique challenges.

7.3.4 Conclusions with regard to Objective 4

The fourth objective of this study is encapsulated in chapter five with the aim to explore the determinants impacting intra-African tourism based on the trade theoretical approach, particularly, the gravity model, Linder's hypothesis, and the comparative advantage theory with the Heckscher-Ohlin theory. The summarising of the theories indicate that the gravity model assumes that bilateral trade is a function of the national income and distance of the trading countries. It is highly efficient in investigating international trade flows in trading blocs or regions. Linder's hypothesis relies on the similarities between countries in explaining international trade. The theory assumes that countries will export popular domestic products especially to countries with similar tastes and income levels. The comparative advantage theory in conjunction with the HO theory determines the comparative advantage of goods in two distinct variations. The comparative advantage theory relies on the technological changes across countries, while the HO theory relies on the differences or changes across factor endowments (c.f. 5.4). The investigation of this objective in Chapter 5 also refers to the historic events in Africa.

The roots of mankind is said to be found in Africa, and from Africa the human race evolved and dispersed across the globe. The historic investigation of Africa can be divided into three distinct periods namely, the slave trade and conquest of Africa (1441-1875), the colonisation of Africa (1875-1961) and Africa's independence (1961-onward) (c.f. 5.2). Since tourism is highly reliant on experience, the trade in tourism services rather than traditional goods creates some concerns, especially within the framework of traditional trade theories. "Tourism trade" holds numerous benefits such as spill-over effects, building resilience, developing communities, and contributing to partnerships. However, most trade policies and legislation have only recently recognised tourism's potential within economic development (c.f. 5.3.1). The development of more robust trade agreements, and the subsequent enactment thereof within Africa, could result in effective economic growth within regional economic communities (RECs) and in turn, the continent. Tourism growth could be dependent on trade between neighbouring and regional countries, since enhanced trade agreements between participating countries usually result in less stringent travel requirements. Still, this might not be the case within Africa, which complicates the growth of trade within Africa, and tourism's facilitating or catalyst effect in development (c.f. 5.3.1).

In explaining how nations trade, three models were discussed which included the HO-model together with the Ricardian comparative advantage theory, Linder's hypothesis, and the gravity model. These theories had all been extensively researched and applied in various studies, and more recently modelling tourism demand based on trade theories are considered useful approaches. The HO-model and comparative advantage theory, revealed comparative advantage and express the percentage share of a given sector in national exports, while the normalised revealed comparative advantage and is more precise across time, country and sector, with more robust results (c.f. 5.5.1). Linder's hypothesis is based on the similarities of preferences with regard to demand structures and patterns, ties are presumably associated with common levels of income. Linder's hypothesis is beneficial in analysing economic unions thereby easing the investigation into increased globalisation and economic integration (c.f. 5.5.2). This research confirms that applicability of the gravity model and the subsequent determinates. This is especially true for distance, which contributes to tourism flows, especially concerning the size of the economy and the distance between the countries. Other common variables such as the influence of consulates/embassies, common currency, population size, source market income, common language, and exchange rates appear in gravity literature (c.f. 5.5.3).

The data included 24 African countries over a 10 year period (2001-2010). Countries were grouped into the regions of Africa. The data was obtained from the UNWTO, the World Bank Development Indicators, the Centre d'Etudes Prospectives et d'informations Internationales and the United Nations.

As indicated in Table 7.2, the gravity specification was used and subsequently augmented by the incorporation of the remaining models. In the analysis both fixed (LSDV) and random (PPML) effects are reported. The fixed effects assume that no other factors are affecting the data over the time period and would therefore result in omitted variable bias. The random effects assume that individual differences across countries influence the dependent variable (arrivals). The majority of the standard determinants such as GDP per capita and population size of the destination was considered significant for the LSDV results of all models. Moreover, GDP per capita was also significant for PPML estimations for the majority of models, excluding the gravity model. Additionally, distance, common border, language, and coloniser were also significant. Yet, common language was not significant in any of the PPML estimations. The gravity models LSDV estimation also substantiated that landlocked countries will experience increased arrivals, which is contradictory to theory.

Table 7.2: Summary of intra-African determinants

Determinants	Gravity model		LH; CA; HO	
	LSDV	PPML	LSDV	PPML
Gravity model (GM)				
GDP per capita (d)	-		+	+
Population (d)	+		+	
Distance	-	-	-	-
Common border	+	+	+	+
Common language	+		+	
Common coloniser	+	+	+	+
Landlocked countries	+			
Northern Africa	-			
Eastern Africa	+			
Western Africa	-			
Linder's hypothesis (LH)				
Linder 4				+
Comparative advantage (CA)				
Normalised revealed comparative advantage			+	+
Heckscher-Ohlin (HO)				
Population differences			-	
Marine differences				-

Concerning the regional analysis, eastern Africa is expected to experience increased arrivals. However, this could be due to the regions visa-openness policy. Northern and western African states will experience decreased arrivals, and might be due to political instability in the north, and health threats (such as Ebola) in the west. Linder's hypothesis indicated that less urbanised countries will travel to more urbanised countries. Again, this is contradictory to the Linder's hypothesis and trade theory. In terms of the comparative advantage results, the NRCA was positive and significant in both estimations, indicating that countries with increased capital, labour and natural resources will benefit from increased arrivals. The HO results refer to the availability of labour force (population difference) and the differences in natural resource endowment. The results indicate that natural resource endowment does not influence intra-African tourism. Additionally, this explains and confirms that Africans tend to travel to urbanised areas and not to rural settings for natural resources.

7.3.5 Conclusions with regard to Objective 5

Objective 5, stipulated in Chapter 6, investigated outbound African tourism with an Almost Ideal Demand System to understand African tourists' travel patterns and how these are influenced by changes in income and prices around the globe.

The outbound African travel market is considerably smaller compared to the international inbound and intra-African travel market. An Almost Ideal Demand System (AIDS) was used to determine the demand for African outbound tourists to other continents as well as the role of price elasticity and expenditure patterns in the countries of reference. AIDS is an effective tool in assessing tourism economics as it examines the entire set of price and expenditure elasticity while addressing the nature of tourism demand (c.f. 6.1). The AIDS model is an attractive approach since it is based on utility maximisation, making it a popular method due to the use of economic theory and theoretical support. Furthermore, it is more superior to the linear expenditure system, indirect addilog model, Rotterdam model and the double logarithmic system. The AIDS model has also been extensively used in tourism demand literature, however, few studies were African based (c.f. 6.3).

In terms of the data, to assess outbound African travel, inbound African arrivals to other destinations were obtained from the UNWTO for the time frame of 1995 to 2013. Price and consumer price index data was obtained from the IMF's IFS database. The continents in question are Africa, Asia, Europe, North America, Oceania and South America. African arrivals to each continent are visualised in Figures. Firstly, African arrivals are indicated within African (intra-African travel) as well as the number of African arrivals globally (c.f. Figure 6.1). To illustrate the difference in demand, an interval of the destinations African arrivals reveal that Africa is the preferred destinations (c.f. Figure 6.2). However, when Africa is removed from the equation, it is evident that Europe is a prominent destination for Africans (c.f. Figure 6.3). Intra-African travel is the largest contributor to outbound tourism, yet the descriptive results indicate that intra-African travel is decreasing (c.f. Figure 6.4). South Africa is considered the most prominent destination and market within the continent, followed by Nigeria, Zimbabwe, Tunisia and Swaziland (c.f. Figure 6.5). Africans travelling to Asia are rising, and Asia was a prominent destination in the past, but Europe has become more popular over the past decades (c.f. Figure 6.3). As previously mentioned, African arrivals to Asia are popular and an upward growth rate is expected (c.f. Figure 6.6). Asian destinations that are popular amongst African travellers include Saudi Arabia, Turkey, India, Hong Kong and China (c.f. Figure 6.7). European arrivals from Africa are the most significant outside of Africa and are also expected to grow steadily (c.f. Figure 6.8). France and the UK are considered the most prominent destinations, followed by Italy, Germany and the Netherlands (c.f. Figure 6.9).

African arrivals to North America, although proportionally smaller than Europe and Asia, are showing positive sign of growth (c.f. Figure 6.10). In this analysis, the continents arrivals were almost entirely made up of visits to the United States and Canada, since the number of visits to other North American countries are less than 1% of African arrivals (c.f. Figure 6.11). The

analysis of the southern hemispheres indicate that African arrivals to Oceania are expected to decline (c.f. Figure 6.12) with only Australia and New Zealand (c.f. Figure 6.13) as prominent destinations within the region. The African arrivals to South America are expected to increase, as a positive growth trend is evident (c.f. Figure 6.14). The popular destinations within the region include Brazil, Cuba, Chile, Peru and Ecuador (c.f. Figure 6.15).

Intra-African travel is the most prominent, however in terms of outbound travel European countries (France, UK, Italy, Germany, the Netherlands), Asian countries (Saudi Arabia, China, Turkey, India), and North American (USA and Canada) countries are popular destinations. The Southern Hemisphere indicates differences in trend to South American countries (Brazil, Cuba, Chile, Peru, Ecuador) which show an increase, while Oceanian countries (Australia, New Zealand) display a decrease in African arrivals (c.f. 6.7).

Table 7.3: Summary of price elasticity

UNCOMPENSATED						
Regions	Relative income		Relative own price		Destinations	
	Elastic	Inelastic	Elastic	Inelastic	Substitute	Complementary
Asia		+	-		Europe & North America	Oceania & South America
Europe		+	-		North America	South America
North America		+	-		South America	Oceania
Oceania	+			-	South America	Africa
South America		+		-		Africa
Africa	+		-			South America
COMPENSATED						
Asia			-	-	Europe & North America	South America
Europe			-		North America & Oceania	South America
North America			-	-	South America	Oceania
Oceania			-	-	South America	
South America			-	-		
Africa			-	-	Asia, Europe, North America & Oceania	

Static model only; short-run and long-run dynamic model; all models

Table 7.3 indicates the uncompensated and compensated static, short and long-run dynamic results. Interestingly, from a visual perspective, the uncompensated results confirm the majority of (all) the models. While the compensated results mostly rely on the static model and short-run and long-run models independently. The indicator sign of the coefficient is as expected in all the cases pertaining to relative income and relative own price. The relative income elasticity indicates that Oceania and Africa are the most elastic, while the remaining destinations are less elastic. Moreover, the relative own price elasticity indicates that Asia, Europe and North America are the most elastic, while Oceania and South America have the least elasticity. Africa is considered elastic in the short-and long-run dynamic model. Additionally, the relative own price of the compensated results mimic the uncompensated results, except in this case, Africa is considered inelastic. The table indicates which destinations are substitute and complementary. In most cases the results are similar in terms of destination substitutability and complementarity with the following exceptions in the compensated results: (1) Europe is substitutable with Oceania, and (2) Africa is substitutable with all destinations except South America. The complementary results also reveal differences in the compensated results: (1) Asia is no longer complementary to Oceania; (2) Oceania and South America are no longer complementary to Africa; and (3) Africa is no longer complementary to South America.

Moreover, both destinations that are considered substitutable and complementary are mostly found along travel routes, directed by flight plans. Finally, it is estimated that Africa is a viable source market for international travel, and although the current number of African departures are small, the trend is expected to change as social and economic challenges are reformed (c.f. 6.8).

7.3.6 Conclusions with regard to Objective 6

The final objective of this study is to identify the current factors that prohibit Africa from becoming a global competitive tourism role player, based on the empirical results. The objective also focus on recommendations to improve Africa's tourism competitiveness.

The literature supporting the development of destination competitiveness was discussed in Chapter 2. This indicates that from a trade perspective, destination competitiveness is the interaction between a destination's comparative advantage factors (factor endowments) and the competitive advantage factors (ability to utilise factor endowments efficiently for specialisation). Furthermore, destination competitiveness also relies on enhancing a destination's attractive features creatively. This includes offering quality, innovative, and efficient services more capably. Tourism as an experience, demands the use of associated

elements such as individuality, authenticity, narrative, multi-sensory perceptions, contrast and interaction. By analysing the interaction between the comparative and competitive advantage factors results in identifying strengths/opportunities as well as weaknesses/threats.

In identifying the strengths/opportunities and weaknesses/threats, as partially discussed in Chapter 3, assists in comprehending the extent to which destination competitiveness is managed. Concerning tourism arrivals, the influence of factors on inbound tourism, intra-African tourism and outbound tourism was assessed. These factors are multidisciplinary and range from geographic, political, social, and economic circumstances. Moreover, tourism albeit a catalyst for economic development, is sensitive to external global changes and internal volatility. Indisputably, Africa offers enormous potential in terms of comparative advantage factors, which insists that competitive advantage factors might be the underlining concern. This has not deterred tourism or international arrivals, yet might have contributed to the plateaued state of African tourism which proportionally attracts between five and six percent annually. In order to provide further insight into this chapter, findings are summarised to reveal and support the research concerning inbound, intra-African and outbound tourism.

7.3.6.1 Determinants and deterrents for inbound tourism

Referring to the results of Objective 3, the principal factors indicate habit formation for all regions, excluding central Africa. It is also clear that income is an important determinant. With the exception of entire Africa, none of the marine or protected areas are considered important in any regional analysis. This could however be due to the ratio of marine and terrestrial land in terms of total surface area. Health concerns in southern and central African states might become pressing concerns. Additionally, income of origin destinations is important indicators to assess for total Africa, and specifically for northern and western states. Price still favours entire Africa, but this is not indicated in the regional analysis, therefore regional price competitiveness need to be investigated. Unfortunately no generalisation for eastern Africa can be made due to the inconsistent data from the region. However, the region is a popular destination and is actively developing the tourism industry, especially concerning regional integration.

7.3.6.2 Determinants and deterrents for intra-African tourism

In general intra-African arrivals are a major contributor to the African tourism industry. As expected differences between regions are observed, but as previously mentioned, eastern Africa will benefit greatly from the regional integration and visa-openness policies. Regions such as northern and western Africa will experience decreased arrivals which could be due to regional political instability in the North and health and safety threats in the West. Common

variables across the continent indicate that the influence of colonisation, common language and common borders increase tourism. This indicates that intra-African arrivals are most likely to be evident in regional economic communities and that regional African tourism is a viable avenue to increase intra/pan-African arrivals. Unsurprisingly, distance will lead to reduced arrivals, again reinforcing the importance of regional African tourism. This research contradicts previous literature, as landlocked countries will experience increased arrivals, this could possibly be due to landlocked countries dependency on neighbouring countries, again reinforcing the importance of regional tourism and the influence of common borders and distance. Another contradicted finding indicates that tourists from less urbanised countries tend to travel to more urbanised countries. This is presumably for the tourists to benefit from more advanced services. This is supported by the increased arrivals due to comparative advantage factors such as labour, natural resources and capital, which are generally associated with more advanced economies. However the population differences, as well as the marine protected areas indicated decreased arrivals, which might indicate that Africans exhibit no propensity to travel to conservation areas.

7.3.6.3 Determinants and deterrents for outbound tourism

Minding the challenges mentioned above, outbound African travel is largely undervalued. Currently the outbound African market is estimated at three percent, of which only 30% travel to other continents outside Africa. Once more the same concerns raised for inbound and intra-African travel remain. Due to large scale unemployment and poverty across the continent, Africans simply do not have the ability or propensity to travel abroad. Therefore addressing and ultimately increasing outbound African tourism will result when conditions in Africa are improved. The determinants and deterrents of inbound and intra-African tourism is therefore a valuable departure point.

7.4 Contributions of the study

The contributions evident from this study are primarily orientated towards addressing the gaps in the literature or available data pertaining to Africa's competitiveness as a global tourism role player. Although studies have been completed on this subject, it is limited to only a few case studies, where data is readily available. This study investigated Africa from three distinct perspectives of tourism competitiveness i.e. inbound tourism, intra-African tourism and outbound tourism, which according to the researcher is the first attempt of this kind in addressing Africa's tourism competitiveness. The following contributions are made pertaining to the literature and practical perspectives.

7.4.1 Literature contributions

- This research contributed to the lack of understanding of Africa, due to limited research from an African perspective. To address this gap, Africa as a global tourism role player is holistically assessed. The fact that not all 54 African countries could be included in the analysis, due to data restrictions, is a prime example of the urgency and necessity of tourism research in Africa. This is furthermore supported by investigating regional tourism development, and not merely a geographic division of North- and Sub-Saharan Africa. This research confirms the inherited regional concerns and opportunities for increased tourism development and competitiveness. The numerous challenges faced by many African countries and regions are attributable to low institutionalised reforms in especially trade and economic development, which also encapsulates tourism.
- This study contributes to the existing body of knowledge pertaining to destination competitiveness, as well as indicates the discrepancies that developing countries face in applying models of developed country. Traditionally destination competitiveness models attempt to address a country or a region's destination competitiveness, since large regional and continental analysis is time consuming and in the case of Africa, data is limited. Due to the complex nature of destination competitiveness, this study indicated that current theories are useful guidelines and stepping stones in striving for further investigations. However the implementation and applicability of these theories are demanding and in some cases impossible for many African countries and regions.
- The research contributes to the limited investigation into intra-African travel. This study further addressed the gap on the limited research on intra-African travel by showing that it is an important sector within the greater African tourism industry and holds much potential for social and political reforms across the continent. Within intra-African tourism this study advocates that intra-regional tourism, between neighbouring countries, is readily available and should become a more prominent feature in national and regional economies. Additionally, increased intra-regional travel will contribute to pan-African travel, especially when border control and visa requirements for Africans are reduced. A more prosperous Africa will rely on the integration and regionalisation of Africa's regional economic communities, which could then extend into pan-African negotiation. Furthermore this research favours trade as a champion for tourism and economic development and subsequently less dependency on foreign aid. Africa has the ability and resources to assist Africa. This realisation is a possible solution for many of Africa's concerns, and is attainable by rooting out bureaucratic malice and corruption.

7.4.2 Practical contributions

- The identified determinants that influence Africa's competitive potential (c.f. Table 7.1, Table 7.2, Table 7.3) contribute to a greater understanding of inbound, intra-African and outbound tourism in Africa, as well as the factors that influence the development and sustainability of African tourism.
- New source markets that travel inbound to Africa are identified, and these include many emerging trade partners and regions such as Asia and South America. This indicates that African regions can capitalise on the potential of developing products and services aimed at the markets to supplement the traditional travel markets of Western Europe and the USA. Destination management organisations within Africa can utilise this information in attracting a greater number of visitors by means of purposeful marketing campaigns.
- The African outbound market is identified and although traditional source markets are still favoured as destinations for Africans, there is a subtle increase in the emerging economies. Possible reasons for the growth of outbound African tourism to a particular region are provided and include perspectives on trade, religion and even sport as a possible travel motive. The African outbound market might be relatively small. However, this study considers that it is an untapped market, particularly when economic and social reforms will equip Africans to travel.
- The importance of policy development for regional economic integration and enhanced trade is advocated. This coupled with effective management will lead to increased intra-Africa travel, as well as, enforce current policy within regional economic development to include the prioritisation of tourism for national and regional economies. Additionally the African Union can place greater importance on tourism as a catalyst for growth by ensuring tourism ministries in each African member state, as well as establish regional tourism organisations as divisions within regional economic communities (REC). The overlap of REC should be addressed to ensure clear and consistent management.
- The benefits associated with global competitiveness are realised. This research firmly accredits the importance and prioritisation of tourism for African development. Additionally, the identified determinants can lead to the establishment of a regional framework for African destination to effectively exploit its tourism potential.

7.5 Recommendations

The following recommendations are prescribed to contribute towards Africa's tourism competitiveness as a global tourism role-player. Recommendations will be made in terms of inbound tourism, intra-African tourism and outbound tourism. The recommendations are valuable for managing tourism arrivals and tourism development in Africa. These recommendations can be of special interest to destination marketing organisations (DMO's), national and regional departments of tourism and economic development, and travel intermediaries and associations.

7.5.1 Recommendations with regard to inbound tourism

The recommendations in this section specifically focus on the African regions and Africa as a whole. Recommendations are made towards tourism abundant or tourism scarce countries and regions. An overview is given of determinants and dummy variables influencing tourism arrivals.

7.5.1.1 *Recommendations for total Africa*

- In terms of tourism abundance it is crucial for African countries to be aware of the prices of African tourism products and services, since source markets are income sensitive to the changes that influence price. Presently, travelling to Africa is considered a luxury expense, especially when one considers the numerous luxury safari packages on offer. Therefore it is crucial to expand the current product offerings to be more inclusive in terms of affordable African travel and destinations. It is therefore recommended that African destination marketing organisations (DMO's) create different level packages for all income groups such as budget, family friendly, all-inclusive, and luxury all-inclusive. This provides more options to tourists, empowering them to decide on the required level of comfort and the willingness to pay for the chosen level of comfort. This will also mean that service providers such as accommodation establishments have the opportunity to showcase a larger selection of available comfort levels or specialise in a few selected options.
- Globalisation and the creation of the "global village" had greatly influenced economic development and economic diversification of industries, countries, regions and the world. Therefore to benefit from globalisation and the overall influence of information on destination management, it is vital for African countries and regions to be connected in terms of communication infrastructure. Investing in the appropriate tourism and communication infrastructure is beneficial in terms of greater connectivity with the world. Moreover, it contributes to tourism in a very real and tangible manner, in that it provides tourism destinations with the opportunity to communicate the brand and

products on offer, while providing tourists with communication possibilities. Furthermore, tourism and communication infrastructure is considered very central to international trade, while also facilitating knowledge exchange that benefits multiple industries. It is therefore recommended that African countries invest into information communication technology (ICT) to provide the access as well as fill the gap in the ICT sector resulting in increased employment. Regionally, ICT hubs can be created to facilitate the ease of communication and establish Africa as a network provider to the world by forming Africa's "Silicone Valleys" similar to those of India and the United States.

- Geographically Africa is large and the distances that need to be travelled are vast and expansive, which also contributes to higher associated travel costs. The influence of proximity is well documented and therefore African countries in northern Africa, which are subsequently closer to Europe and Asia, benefit from the geographic location as travel costs are lower, and travel time is more comfortable. Therefore the more south one travels in Sub-Saharan African countries, the more expensive the visit (either in terms of monetary value or the restricted travel time) becomes, necessitating exceptional services at affordable prices to compensate for travel expenses. So far this does not seem to have deterred tourist arrivals to for example South Africa, which is contradictory to the findings. Therefore it is possible that since South Africa is such a regional hub in terms of flights, the colonial ties shared between South Africa and Europe, and the fact that South Africa is fairly well developed in terms of tourism offerings, the distance does not factor in. If this is the case, countries in Sub-Saharan Africa with the ability and potential to emulate South Africa should aggressively invest in tourism offerings and use South Africa as a benchmark for development. Countries that lag behind in terms of potential or ability should address the challenges that prohibit the abilities to emulate.
- African tourism offerings have become almost synonymous with luxury safaris and hunting trips. Although this is true for many African destinations, the product offerings are far more diverse. In most cases where safaris and hunting are prevalent, conservation is always considered important and necessary for sustainability. The influence that conservation areas (both terrestrial and marine) have on tourism is overwhelming. The influence of conservation areas on arrivals to Africa is significant. Conservation areas include private, national, provincial, and transfrontier parks, wetlands and marine protected areas. Considering these areas' important influence, it is crucial to protect these areas for sustainable use. African governments and conservation agencies should therefore actively search and invest in the expansion of protected areas, which is good economics in terms of tourism arrivals, but also

contributes to biodiversity and green initiatives to combat climate change and food insecurity. This is especially vital for Africa's rich natural biodiversity and growing population.

7.5.1.2 Recommendations for northern Africa

- As previously mentioned African destinations should evaluate the price of tourism products and services. This is especially true for northern African countries which are becoming more income sensitive. The results for entire Africa also confirm that this region would benefit from the proximity to Europe and Asian destinations, since reduced travel time and objectively travel costs are more affordable. As expected, northern African countries can benefit when offering affordable tourism products and services such as the diversified packages previously mentioned in the entire Africa recommendations.
- The importance of tourism and communication infrastructure has been addressed, and northern African destinations can benefit from the appropriate investment and supply of the infrastructure to offer greater connectivity across the region. This also holds other benefits in terms of regional cooperation and intra-regional trade, especially to reduce monopolies and promoting arrival spill-over from one destination country to another within the region.

7.5.1.3 Recommendations for eastern Africa

- Results indicated that urbanisation deters arrivals in this region. This might, however, on face value indicate that tourists are not seeking cityscape experiences. Therefore, it is advocated that African governments promote the natural and pristine environments in eastern Africa to ensure that arrivals are travelling for the nature-based activities or products. Additionally, the use of eco-friendly building practises, employing natural emerging materials and providing green public spaces such as urban parks along major tourism routes might reduce the appearance of urbanisation. These findings were however only confirmed in the static results.
- Contributing to urban development and urbanisation is the mortality rate within the region (characterised by crude death rate) is considered a deterrent for arrivals to the region. Higher mortality rates are considered to be linked to insufficient general public health, disease or lack of health institutions. This is escalated by health concerns of travellers, and therefore countries with lower mortality rates seem to attract more arrivals. Therefore eastern African countries should heavily invest in

the improving of public health, as well as access to health services. Again these findings were only confirmed in the static results.

7.5.1.4 Recommendations for southern Africa

- Health concerns such as tuberculosis (TB) have an unapparent influence on arrivals to southern Africa. Nonetheless, this region has some of the highest reported cases of TB in the world. It is therefore crucial for governments and health organisations to ensure that communities are well informed of the dangers that accompany the prevalence of TB, especially when HIV/AIDS are also contracted. This makes for healthier and more productive workforces which in turn strengthens national economies. Therefore it is recommended that South African countries improve the overall health of citizens, and especially in terms of TB prevention.
- In the region, the prevalence of safety and rule of law does not necessarily encourage increased arrivals. Still, countries that offer less corruption and more personal safety will attract higher number of arrivals. Therefore it is vital for law makers and enforcers to ensure safety of residents and visitors. Addressing corruption might be more difficult. Then again, certain practises should not be encouraged, such as bribery and/or exploitation of residents and tourists. Therefore it is recommended that African countries enforce strict codes of conduct in terms of ethical consideration, and adhere to international safety standards.
- A reoccurring theme is the tourism and communication infrastructure, which contributes to tourism arrivals. It is important for governments and communication regulators to ensure that wider communication options are available. This would minimise monopolisation of the communication industry within a region, and result in better rates for residents. It will also effectively contribute to an increase in livelihoods. Furthermore, southern African countries could invest in the ICT sector in terms of bursaries to students who enrol into ICT courses, so that southern Africa might become a regional ICT hub producing leading professionals in the field.
- Lower mortality rates have a positive influence on arrivals, indicating that countries that have good access to medical and health services will attract more arrivals. It is therefore crucial to ensure that public health services can be trusted and relied upon to assist during an emergency. This is also coupled with the communication infrastructure, and to ensure that medical assistance can be contacted more efficiently. It is therefore recommended that southern African countries develop medical and health institutions that are of international standard, ensuring that public health is increased.

7.5.1.5 Recommendations for western Africa

- As mentioned in the section of northern African results, income of source markets influence arrivals to certain destinations or regions. In western Africa this is a reoccurring theme, indicating that DMO's and travel intermediaries should be aware of the potential disposable income reserved for travel products and services. Since income dictates travel behaviour and destination choice, it also determines competitiveness. Thus, western Africa should ensure that travel or tour packages are competitive with other regions. Alternatively, western African countries could identify niche areas within the tourism offerings which could be priced accordingly.

7.5.1.6 Recommendations for central Africa

- Similar to southern Africa, the arrivals to central Africa are less concerned with the prevalence of tuberculosis (TB) in the region. Therefore it is imperative that health services and government funded health initiatives towards the reduction of TB cases be effectively communicated towards communities, especially since HIV/AIDS are dominant within this region. Health services should be visible and accessible to tourists, ensuring the highest standards and care during treatment.
- Arrivals prefer more rural settings, and thus urbanisation deters arrivals to central Africa. This is also a reoccurring theme, similar to eastern Africa. Therefore central Africa requires government and regional or city planners to ensure green public spaces and more natural development. Also, development opportunities should be eco-friendly centred and sustainable development should be the premise of the central African countries.
- Similar to eastern and southern African countries, lower mortality rates will contribute to more arrivals to central Africa. Therefore governments should implement health initiatives in countries to ensure optimum general health of the population, while ensuring public safety of residents and visitors. Central Africa is burdened with rebel groups. Consequently, neighbouring countries and regions should assist central African governments in ensuring that rebel or military coups do not remerge.

7.5.2 Recommendations with regard to intra-African tourism

The results from Chapter 5 offer interesting insights into the determinants that influence tourism arrivals to Africa from other African countries. To the author's knowledge, intra-African travel has to date received little empirical investigation. This is partly due to a lack of available data, as well as the problems associated with cross-border trade on the continent. Since Africa is widely inaccessible to other Africans, this research contributes to a greater understanding

of the determinants that attract African travels within Africa.

7.5.2.1 Recommendations from the gravity model

- Confirming traditional economic assumptions, the mass variables such as GDP per capita and total population, accompanied with the distance or travel cost variable explains tourism flows within Africa. In layman's terms, the proximity of African countries to one another will result in greater tourism flows between those countries, for example South Africa and Lesotho. Moreover the size of disposable income and populations will also result in bilateral travel between countries with similar characteristics. Therefore it is crucial for countries within nearby regions to cooperate toward ensuring the free movement of people over borders to maximise tourism gains. Marketing strategies of destination marketing organisations (DMO's) should follow a more regional approach, as it is more cost effective to market destinations to countries or regions with similar tastes and characteristics. Additionally, regional tourists can be reached almost simultaneously together with domestic tourists, essentially by extending the regional tourists to domestic tourists, ultimately increasing the likelihood of more intra-African trips annually.
- Trade was insignificant in explaining tourism flows, which could be due to Africa's lack of economic integration and intra-regional trade. It is therefore vital for regional economic communities (REC's) to identify the barriers that influence regional economic integration (REI) and ensure that trade policies are aimed at regionalisation of industries. This will result in decreased trade barriers, endorsing pure competition, and easing the movement of people for knowledge and innovation exchange.
- As expected, general characteristics such as sharing a common border, a common ethnic language and common coloniser contribute to increased arrivals. Hence, countries that have decreased cultural distances will presumably have the same tastes and preferences for certain products and services. This is greatly beneficial for the tourism industry, as one country may evaluate the tourism demand of the domestic market, and with little alteration, attract similar African tourists that share the same ethnic language and who border the host country.
- Contrary to the trade model theory, the results revealed that landlocked African destinations experienced increased tourism arrivals, especially landlocked eastern African countries. Landlocked western African countries experienced the least benefits in terms of tourism arrivals. It is evident from the research that East Africa's open-border policies within its regional trade-bloc (East African Community) contributed to the success of the landlocked countries. This implies that other regions might learn

from the landlocked eastern African countries. Also, governments should be aware of the potential that regional economic integration and regional cooperation have for countries.

- These results imply that the gravity model is useful in determining travel flows in Africa. Also, with more substantial data, more robust estimations might be performed. Since trade was insignificant in explaining tourism flows, it might be beneficial to re-evaluate trade policies within regional economic communities (REC's), which influences the costs associated with trade barriers. Regional economic integration could possibly lead to enhanced competitiveness, prevent conflicts and consolidate economic and social reforms. This is especially true for countries that share common ethnic languages and common borders, since the cultural distance is not a deterrent. Another benefit from the results implies that landlocked countries experienced increased arrivals. This implies that as landlocked countries find it difficult to export due to a lack of harbours, the countries might aim their strategies to integrate more successfully with neighbouring countries and attracting tourists from their neighbours. The higher degree of integration makes it possible for trade and tourism to flourish, and subsequently lead to enhanced economic activity and growth.

7.5.2.2 Recommendations from Linder's hypothesis results

- The Linder's hypothesis confirmed the results of the gravity model especially concerning the mass variables (GDP per capita and population size), distance (travel cost), mutual border, language, and coloniser. This implies that destination marketing organisations (DMO's) and governments should be aware that these variables have the potential to attract African arrivals, thereby increasing intra-African travel.
- The Linder variables offer interesting insight and contradict the theory as countries with similar characteristics are expected to extend their trade/travel with one another. However, Linder 1 and 2 indicate that arrivals are inclined to travel to countries that have higher GDP per capita, while Linder 4 indicates that less urbanised countries travel to more urbanised countries. Linder's hypothesis implies that countries with similar demand structures will trade more with and travel more often to one another. However, the results for intra-African tourism do not confirm this notion. The results rather indicate that countries with vastly different demand structures experience increased tourism flows. This is still beneficial in terms of African arrivals, since the continent is largely economically and geographically segregated. The different demand structures therefore are widely available, which indicates that countries will either attract or deter arrivals based in the Linder characteristics.

- Larger, advanced and more affluent African economies attract more arrivals. Presumably these affluent African countries are better developed and urbanised. Greater development often mitigates costs as more options (greater economic competition) are available and opportunities are present. Therefore, less affluent African countries have the opportunity to learn how to diversify economic growth by enhancing trade and tourism to ensure sustainability and create competitive advantage.

7.5.2.3 Recommendations from the comparative advantage theory results

- Comparative advantage advocates for specialisation within a country or within a particular industry in order to increase economic welfare by focussing on production of certain products and exporting the surplus product. The conclusion that tourism is a product, leads to production benefit for those countries that specialise in tourism. Tourism abundant countries, already benefiting from tourism, are more popular destinations for Africans. This also confirms Linder's results in terms of the larger, advanced and more affluent destinations. Tourism orientated countries are successful due to the existing tourism development. Therefore, African countries that have the ability to produce tourism offerings should invest in branding and marketing the tourism offerings to neighbouring countries, as an enhancement to the domestic tourism market. Nevertheless, they should still attract foreign (non-African) tourists with an appropriate and dedicated marketing strategy.

7.5.2.4 Recommendations from the Heckscher-Ohlin results

- The population differences (pop_dif) and the resource endowment differences (terra_dif and marine_dif) contradict the HO theory, since the results were insignificant in terms of ratio size and the signs of the coefficients. This could indicate a lack of quality data, or that the African countries are too similar in size (population) and resource endowments. Again if this were true, it would have supported the gravity model results in terms of population size and similar characteristics due to resource endowment. Therefore it is vital for governments to identify the niche products and services which differentiates one African country from its competitors.

7.5.3 Recommendations with regard to outbound tourism

The results from Chapter 6 identified the tourism flows between Africa and the rest of the world (international tourism market), and provided some insight into destination preference. Possible reasons are cited to indicate the arrival patterns to certain destinations.

7.5.3.1 *Recommendations from the descriptive results*

- Intra-African travel is the most prominent. However, when considering travel outside of Africa, the majority of arrivals travel to Europe, Asia and North America, while trips to South America and Oceania are less prominent. Although the reason for travel are ambiguous, possible indicators for tourism flows might be cited and include proximity to Africa, coloniser, common language, religious affiliation and trade. Since the precise reasons are unknown, it is crucial for destination marketing organisations in Europe, Asia and North America to determine the reasons for Africans travelling to certain countries. This will result in more efficient marketing of certain destinations or travel packages can be generated to encourage increased arrivals.

7.5.3.2 *Recommendations for substitute destinations*

- Substitute destinations were identified and included; (i) Asia and Europe; (ii) Asia and North America; (iii) Europe and North America; (iv) Europe and Oceania; (v) Oceania and South America. Here Europe is substitutable with three other destinations; namely Asia, North American and Oceania. This could be due to the proximity of Africa to Europe, indicating that travel costs or travel time influences trips to Europe. Additionally, other possible reasons such as common colonisers, common language or religion might influence arrivals. This implies that European countries might benefit from more African arrivals once the motives for travel are known. Interestingly the elasticity between Europe and Oceania, and North America and Oceania were the highest. This is an indication that price increases in Oceania will result in more African arrivals to Europe and North America. This could mean that if Oceanian destinations desire more African arrivals, that price competitiveness should be the focus of destination marketing organisations.

7.5.3.3 *Recommendations for complementary destinations*

- Complementary destinations were identified and included: Asia and Oceania; (ii) Asia and South America (iii) Europe and South America; and (iv) North America and Oceania. Since no determinants were included in the analysis, possible reasons for complementary destinations are made. When one considers Asia and Oceania, the

possible reason might be flight routes, since Oceania is largely accessible via Asia. This could imply that the prominent destinations within these two regions could possibly gain advantages from African arrivals by combining marketing efforts, or by introducing tour packages (subject to visas). Another interesting result was between the Asia and South American regions, indicating that trade agreements might contribute to arrivals, especially when considering partnerships such as BRICS. This implies that trade could increase outbound tourism. Recently, direct routes between South Africa and Beijing, and South Africa and San Paulo have become available as well.

7.5.4 Recommendations to improve Africa's destination competitiveness

Since competitiveness is a multidimensional construct, the scope and measurement is difficult to define. Numerous studies confirm that competitiveness, in its most basic form, is the evaluation of scarcity and unmet needs. In addition, it is the manner in which scarce resources are employed to satisfy those unmet needs. This evaluation and re-evaluation of the scarce resources and the needs that has to be satisfied is an ongoing process, rather than an absolute state. Therefore, competitiveness is ideal for investigating demand. In economics and trade, goods and services and the quantity demanded of particular goods and services relate to the law of demand. In this study, the goods and services that were demanded are destinations, hence an investigation into destination competitiveness.

The evaluation of destination competitiveness enhances the scope and measurability to such a degree, that only a few factors can be considered. The investigation into destination competitiveness is fundamentally rooted in trade and economic theory. Fortunately researchers such as Porter and Richie and Crouch have contextualised firm and/or destination competitiveness for the tourism industry. Although this research is an invaluable stepping stone for evaluating destination competitiveness, the application thereof, especially for developing countries, regions or continents such as Africa, warrants an idiosyncratic investigation. Since Africa is a unique and developing case study, with little to no literature focussing particularly on the continent in terms of Africa's potential as a global tourism role player, this study attempted to elevate some of the ambiguity. Each country, region and continent has particular problems or areas of concern. In terms of Africa, underdevelopment encompasses most of the situations on the continent, however, not for all 54 individual countries. The world is comprised of 196 countries, although Africa is the second largest continent, it is home to the continent with the most countries. Even if each country only had one concern to address, Africa would still hold the monopoly. Africa is large, and many people call it home. It has the second highest population in the world. Evaluating Africa's destination

competitiveness, many factors influence it, but the size of the continent contributes to enormous challenges.

The challenges are mostly related to development or the fact that large parts of Africa are underdeveloped, while other parts are undeveloped. This need for development could possibly be the answer to a more prosperous Africa. Development for Africa means housing, education, healthcare, industrialisation, employment, poverty elevation and possibly wealth. However, these are tangible benefits that are easier to address compared to social reform, equality, rights of women and children, and in some cases relentless corruption and bureaucracy. The results from Chapter 5 clearly express the importance of trade for the continent. Since Africa fell behind in terms of intra-regional trade compared to global averages, it is vital for Africa's economic prosperity and tourism security that Africa trade with Africa. The benefits of intra-African trade will have an immense effect on Africa's wealth creation, but also offer Africans the opportunity to travel unrestrictedly within the continent. In Chapter 6, it is evident that most of Africa's inbound travels from other countries, are from African countries. Therefore, Africans travel within the continent. However, improved trade relations and non-tariff barriers will result in the free movement of goods, but also of people. The human resource and capacity possibilities/opportunities are endless if African's are permitted to reinvest skills, knowledge, and experience into Africa.

The entwined nature of trade and tourism will therefore increase tourism on the continent, once intra-African trade is improved. This will supply African destinations with untapped home (African) markets, as well as establish a wider international net, given that many countries might have different trading partners. In terms of inbound arrivals, the current state of tourism from the traditional source markets (Europe and the USA), which are subsequently also the largest trading partners, will always remain prominent. Yet, Africa is trading with emerging economies. Besides, as the trade is substantial, the future of tourism arrivals might be from emerging markets. Africa therefore has the opportunity to establish itself as a competitor in the global arena for arrivals from emerging markets such as China, Brazil, Russia, and India. Once the benefits of development and trade have settled the economic unrest and tension on the continent, it will enable the majority of Africans to travel abroad. The majority of outbound Africans travel to Europe and Asia. The possible reasons for this are speculative, though certain common characteristics might account for the flows such as common language, common religion affiliation, proximity and common coloniser with regard to Europe, while religious affiliation, proximity and trade might account for Asian arrivals.

In this regard the following sections provide policy and management recommendations to improve Africa's destination competitiveness.

7.5.4.1 Policy and managerial recommendations

Policies are legislative and governance frameworks that assist in addressing particular concerns with clear and concise objectives. Policy implementation and approach depends on the situation, and could be addressed bottom-up, top-down, or through a hybrid approach. Since no policy recommendations for individual countries (bottom-up) can be made, the following top-down (pan-African) and hybrid (regional African) policy recommendation are prescribed:

- Pan-African and regional recommendations
 - It is needed to ensure a unified policy for African countries and regions, which the African Union (AU) enforce to establish, develop, and cooperate within the greater African tourism industry. Currently, the AU is spearheading such an initiative with the Specialised Technical Committee (STC) on Transport, Intercontinental and Interregional Infrastructure, Energy and Tourism. The theme addressed by the committee in December 2016 is “Financing Infrastructure in Africa” with specific goals of: (1) Enhancing Africa's tourism competitiveness (AUSTC, 2016a); (2) Investing and financing tourism in Africa (AUSTC, 2016b); (3) Harmonisation of tourism strategy in Africa (AUSTC, 2016c); and (4) Tourism and security in Africa (AUSTC, 2016d). Challenges for each goal are presented and confirmed below.
 - Concerning the first goal, the STC attains weak competitiveness due to low prioritisation of the tourism sector in participating African states, especially the lack of fully fledged tourism ministries. This is considered worrisome as in many African countries tourism is considered a key driver of both economic growth and development. Since this study did not investigate individual countries, the only indicators are the regional tourism enterprises such as the regional tourism organisation of southern Africa (RETOSA), the East African tourism platform (EATP), and West Africa tourism (WAT). Ideally, each of the five African regions should have a regional tourism organisation within the greater regional economic community (REC) to foster cooperation between member states. Currently RETOSA includes many countries, even overlapping with EATP and WAT contributing to confusion on the regulating body and resulting in duplication. Therefore, this should be addressed by ensuring that REC take charge in establishing regional tourism organisations which could then report to a pan-African tourism organisation at the AU. Additionally the results indicate that a lack of intra-regional trade could possibly be a deterrent for increased intra-African

tourism, which is the largest contributor to the African tourism industry. Hence, policies should be aimed at increasing regional trade and tourism by ensuring compliance within the REC. Additionally, policies should aim to gain increased competitiveness with the establishment of regional tourism organisations.

- The second goal seeks to increase investment and financing for African tourism, which according to the STC is due to the perceived unpredictability and instability on the continent. This is exacerbated by low national investment resulting in leakages from national economies. Again this couples with the low priority of tourism across the continent. The results do indicate that safety and security concerns still cripple certain regions within Africa, especially in Central and Western Africa, which subsequently could benefit most from increased tourism development and arrivals. This is especially true for western African countries that have the highest number of chain-hotel developments in Sub-Saharan Africa and causes great leakages because these are international hotel chains. A lot of tourism enterprises in Africa are classified as small and medium tourism enterprises (SMTE's), which necessitates the development of policy for the growth and development of SMTE's into larger national and overtime multi-national (regional) enterprises.
- The third goal included the harmonisation of tourism strategies across the continent since the regional and pan-African strategies are disjointed. This is attributed to weak institutional structures, limited coordination with REC's, limited operationalisation of the AU and New Partnership for Africa's Development (NEPAD), and limited research into the structure and nature of the tourism industry at a continental level. The study addressed the harmonisation issue in providing a holistic but inconclusive overview of Africa's tourism in a research capacity. However, the study is one of few studies to do so. The results also confirm the weak integration and cooperation of REC's within the continent especially concerning trade, as well as the burden of duplication of RECs member countries. If regional economic integration (REI) can be fostered and prioritised between countries, a greater competitive advantage is expected. This is however not confirmed in the results, especially when considering southern Africa. This is partly due to South Africa's advanced tourism offerings, and the lack of standardisation or benchmarking of other southern African countries. If this could be achieved, the entire region will become competitive. Enforcement of the AU/NEPAD tourism strategies can only be exercised once each REC has a dedicated regional tourism organisation to dictate to nation tourism ministries. It is crucial that a hierarchy is developed and maintained to ensure that legislative recommendations and

strategies are upheld. This couples with the weak institutional structures available in each region.

- The final goal encapsulates safety and security concerns and the impact it has on tourism. Unfortunately, Africa has historically been filled with strife. Major incidences across the continent have shaped misconceptions about Africa. This is especially true when one conjures up past events such as Apartheid in South Africa, genocide in Rwanda, military coups in Central Africa, Boko haram in West Africa, political tensions in Egypt and even terrorist attacks in Kenya and Nigeria. Still, the results indicated that this should not deter tourism arrivals. Equally, with the ever increasing terrorist attacks in Europe, which is a major source of African arrivals, tourists might become less willing to take a chance. Therefore, it would be wise to form a dedicated safety commission from the AU, similar to the United Nations Safety and Security Council, specifically for Africa to negotiate peace discussions.

7.5.5 Recommendations for future research

Competing in the global tourism industry would require that Africa could first and foremost consider its self-interest by investigating intra-African travel more robustly. Secondly, higher quality and quantity of data is needed. Thus, investigating the potential of establishing an African data repository is needed. More detailed investigations into the determinants that influence African tourism competitiveness is needed to address concerns on the continent. Thirdly, regional specific investigations into regional economic communities could reveal interesting results for intra-African trade. Fourthly, it might be interesting to investigate how least developed African countries might benefit from integrated trade and tourism strategies. In the fifth place, an investigation into trade and tourism legislation for Africa could reveal interesting results, as well as identify potential African trade partners. Additionally it might be beneficial to identify potential emerging markets for inbound tourism, and in addition assess the potential of outbound tourism from Africa to these emerging countries. Another limitation to be addressed in future is to investigate African outbound arrivals to specific international countries and not regionally as is the case of this research.

Africa, shaped like a question mark through countries connected on the continent, holds unparalleled opportunity and potential. Describing a continent so vast and unique is unimaginable, however, the following legendary words are true: *'When you have caught the rhythm of Africa, you find out that it is the same in all her music'* – Karen Blixen, *Out of Africa*. This is exactly how things happen in Africa, at its own pace and to its own rhythm. That is part of Africa's charm and appeal. Subjectively, Africa is fascinating and travelling to, in or from Africa will always offer something surprising.

Bibliography

AFDB. 2013. Africa Tourism Monitor. Tunis, Tunisia: African Development Bank Group.
<http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/September%202013%20-%20Africa%20Tourism%20Monitor.pdf> Date of access: 6 Dec. 2016.

AFDB. 2014. African tourism monitor, 2014.
<http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AfricaTourismNOV2014.pdf> Date of access: 7 Dec. 2016.

AFDB. 2015. African Tourism Monitor.
http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Africa_Tourism_Monitor_Unlocking_Africa%E2%80%99s_Tourism_Potential_%E2%80%93_Vol_3_%E2%80%93_Issue_1.pdf Date of access: 7 Dec. 2016.

AFDB. 2016a. Africa Visa Openness Report, 2016.
http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Africa_Visa_Openness_Report_2016.pdf Date of access: 9 Dec. 2016.

AFDB. 2016b. African Economic Outlook 2016.
http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AEO_2016_Report_Full_English.pdf Date of access: 7 Dec. 2016.

Africa Report. 2014a. Country profiles - North Africa. <http://www.theafricareport.com/North/>
Date of access: 7 Dec. 2016.

Africa Report. 2014b. Country profiles - East and Horn of Africa.
<http://www.theafricareport.com/Horn-East/> Date of access: 7 Dec. 2016.

Africa Report. 2014c. Country profiles - South Africa. <http://www.theafricareport.com/South/>
Date of access: 7 Dec. 2016.

Africa Report. 2014d. Country profiles - West Africa. <http://www.theafricareport.com/West/>
Date of access: 7 Dec. 2016.

Africa Report. 2014e. Country profiles - Central Africa.
<http://www.theafricareport.com/Central/> Date of access: 7 Dec. 2016.

African Development Bank **see** AFDB

African Union **see** AU

Alessi, C. & Xu, B. 2015. China in Africa. <http://www.cfr.org/china/china-africa/p9557> Date of access: 7 Dec. 2016.

Alle, K. 2015. The economics of terrorism in Africa.
<http://www.newtimes.co.rw/section/article/2015-12-18/195380/> Date of access: 7 Dec. 2016.

Alston, J.M. & Larson, D.M. 1993. Hicksian vs. Marshallian welfare measures: Why do we do what we do?. *American Journal of Agricultural Economics*, 75(3):764-769.

Ambec, S., Cohen, M. A., Elgie, S. & Lanoie, P. 2013. The Porter hypothesis at 20: can environmental regulation enhance innovation and competitiveness? *Review of Environmental Economics and Policy*, 7(1):2-22.

Anderson, J.E. & Van Wincoop, E. 2003. Gravity with gravitas: a solution to the border puzzle. *The American Economic Review*, 93(1):170-192.

Appleyard, D.R., Field Jr., A.J. & Cobb, S.L. 2010. International economics. 6th ed. Boston, Mass: McGraw-Hill Irwin, The McGraw-Hill Series Economics.

Aragão, C.I.C. 2015. Low Cost Carriers: The Case of Oporto Airport and its touristic impact in the region. https://run.unl.pt/bitstream/10362/15500/1/Aragão_2015.pdf Date of access: 8 Dec. 2016.

Aramberri, J. 2009. The future of tourism and globalization: Some critical remarks. *Futures*, 41(6):367-376.

Arellano, M. & Bond, S. 1991. Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2):277-297.

Armenski, T., Gomezelj, D.O., Djurdjev, B., Deri, L. & Aleksandra, D. 2011. Destination competitiveness: A challenging process for Serbia. *Human Geographies- Journal of Studies and Research in Human Geography*, 5(1):19-33.

Arnold, G. 2014. Corporate financial management. 3rd ed. London, UK: Pearson Higher Education.

Arrow, K.J. 1962. Economic Welfare and the Allocation of Resources for Invention. Universities-National Bureau Committee for Economic Research, Committee on Economic Growth of the Social Science Research Council: Princeton University Press.
<http://www.nber.org/chapters/c2144.pdf> Date of access: 9 Oct. 2017.

Artto, E.W. 1987. Relative total costs: an approach to competitiveness measurement of industries. *Management International Review*, 27(2):47-58.

Ashley, C. & Mitchell, J. 2005. Can tourism accelerate pro-poor growth in Africa? Opinion paper No. 60. Overseas Development Institute. <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/738.pdf> Date of access: 6 Dec. 2016.

Asteriou, D. & Hall, S.G. 2011. Applied econometrics. 2nd ed. Basingstoke, UK: Palgrave Macmillan.

Asteriou, D. & Hall, S.G. 2016. Applied econometrics. 3rd ed. New York, USA: Palgrave Macmillan.

AU. 1991. Treaty establishing the African economic community. Addis Ababa, Ethiopia: AU.
http://www.africa-union.org/root/au/Documents/Treaties/Text/AEC_Treaty_1991.pdf Date of access: 6 Dec. 2016.

AU. 1999. African Economic Community, Treaty Article 65 of 1999. Addis Ababa, Ethiopia: African Union. http://www.eac.int/sites/default/files/docs/treaty_eac_amended-2006_1999.pdf Date of access: 12 Dec. 2016.

AU. 2013. Vision of the African Union. <http://www.au.int/en/about/nutshell> Date of access: 11 Feb. 2014.

AU. 2015b. BIAT – Boosting Intra-African Trade. <http://www.au.int/en/ti/biat/about> Date of access: 7 Dec. 2016.

AU. 2015a. Regional Economic Communities (RECs). <http://www.au.int/en/organs/recs> Date of access: 7 Dec. 2016.

African Union Specialized Technical Committee **see** AUSTC

AUSTC. 2016a. Enhancing Africa's tourism competitiveness.
https://au.int/sites/default/files/documents/32186-doc-enhancing_africas_tourism_competitiveness-e.pdf Date of access: 2 Feb. 2017.

AUSTC. 2016b. Investing and financing tourism in Africa.
https://au.int/sites/default/files/documents/32186-doc-investing_and_financing_tourism_in_africa-e.pdf Date of access: 2 Feb. 2017.

AUSTC. 2016c. Harmonisation of tourism strategy in Africa.
https://au.int/sites/default/files/documents/32186-doc-harmonisation_of_tourism_strategy_in_africa-e.pdf Date of access: 2 Feb. 2017.

AUSTC. 2016d. Tourism and security in Africa.
https://au.int/sites/default/files/documents/32186-doc-tourism_and_security_in_africa-e.pdf
Date of access: 2 Feb. 2017.

Autor, D. 2010. The polarization of job opportunities in the US labor market: Implications for employment and earnings. Center for American Progress and the Hamilton Project.
Community Investments, 23(2):11-16.

Baggio, R. 2008. Symptoms of complexity in a tourism system. *Tourism Analysis*, 13(1):1-20.

Baggio, R. & Cooper, C. 2010. Knowledge transfer in a tourism destination: the effects of a network structure. *The Service Industries Journal*, 30(10):1757-1771.

Baker, M.J. & Cameron, E. 2008. Critical success factors in destination marketing. *Tourism and Hospitality Research*, 8(2):79-97.

Balassa, B. 1965. Trade liberalisation and “revealed” comparative advantage¹. *The Manchester School*, 33(2):99-123.

Balassa, B. 2013. *The Theory of Economic Integration*. 1st ed. Routledge Revivals. Abingdon, UK: Routledge.

Baldauf, S. 2011. Five myths about Africa.

<http://www.csmonitor.com/World/Africa/2011/0806/Five-myths-about-Africa> Date of access: 7 Dec. 2016.

Baldwin, R.E. & Robert-Nicoud, F. 2008. Trade and growth with heterogeneous firms. *Journal of International Economics*, 74(1):21-34.

Balkyte, A. & Tvaronavičiene, M. 2010. Perception of competitiveness in the context of sustainable development: facets of “sustainable competitiveness”. *Journal of Business Economics and Management*, 11(2):341-365.

Baltagi, B. 2008. *Time Series Econometrics*. Berlin, Heidelberg: Springer-Verlag Berlin Heidelberg.

Bardy, R., Drew, S. & Kennedy, T.F. 2012. Foreign investment and ethics: How to contribute to social responsibility by doing business in less-developed countries. *Journal of Business Ethics*, 106(3):267-282.

Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17(1):99-120.

Baum, C.F. & Schaffer, M.E. 2003. Instrumental variables and GMM: Estimation and testing. *Stata Journal*, 3(1):1-31.

BBC World Service. 2014. The story of Africa.

<http://www.bbc.co.uk/worldservice/africa/features/storyofafrica/> Date of access: 23 Jan. 2014.

BBC. 2016. Terror dampens vital tourism to parts of North Africa.

<http://www.bbc.com/news/world-africa-35342281> Date of access: 7 Dec. 2016.

Beenstock, M., Felsenstein, D. & Rubin, Z. 2015. Visa waivers, multilateral resistance and international tourism: some evidence from Israel. *Letters in Spatial and Resource Sciences*, 8(3):357-371.

Behar, A. & Edward, L. 2011. How Integrated Is SADC? Trends in intra-regional and extra-regional trade flows and policy. Washington, DC: World Bank.
<http://www.freit.org/WorkingPapers/Papers/TradePatterns/FREIT289.pdf> Date of access: 12 Dec. 2016.

Belenkiy, M. & Riker, D. 2013. Modeling the international tourism expenditures of individual travelers. *Journal of Travel Research*, 52(2):202-211.

Berrington, A., Smith, P. & Sturgis, P. 2006. An overview of methods for the analysis of panel data. ESRC National Centre for Research Methods Briefing Paper.
<http://eprints.ncrm.ac.uk/415/1/MethodsReviewPaperNCRM-007.pdf> Date of access: 8 Dec. 2016.

Bess, R. 2006. New Zealand seafood firm competitiveness in export markets: The role of the quota management system and aquaculture legislation. *Marine Policy*, 30(4):367-378.

Blackburne, E.F. & Frank, M.W. 2007. Estimation of nonstationary heterogeneous panels. *Stata Journal*, 7(2):197-208.

Blake, A. 2008. Tourism and income distribution in East Africa. *International Journal of Tourism Research*, 10(6):511-524.

Blake, A., Sinclair, M.T. & Soria, J.A.C. 2006. Tourism productivity: evidence from the United Kingdom. *Annals of Tourism Research*, 33(4):1099-1120.

Blanchard, P., Gaigné, C. & Mathieu, C. 2008. Foreign direct investment: lessons from panel data. (In Mathyas, L. & Sevestre, P., eds. *The econometrics of panel data: fundamentals and recent developments in theory and practice*. Berlin, Heidelberg: Springer-Verlag Berlin Heidelberg. p. 663-696).

Bloom, D.E., Sachs, J.D., Collier, P. & Udry, C. 1998. Geography, demography, and economic growth in Africa.

http://www.brookings.edu/~media/Files/Programs/ES/BPEA/1998_2_bpea_papers/1998b_bpea_bloom_sachs_collier_udry.pdf Date of access: 8 Dec. 2016.

Bond, S.R. 2002. Dynamic panel data models: a guide to micro data methods and practice. *Portuguese Economic Journal*, 1(2):141-162.

Botha, A. & Saayman, A. 2013. Modelling tourism demand for South Africa: an almost ideal demand system approach. *Journal of Economic and Financial Sciences*, 6(3):683-706.

Brander, J.A. 1981. Intra-industry trade in identical commodities. *Journal of International Economics*, 11(1):1-14.

Bremmen, N. 2016. Southern Africa fast becoming hotbed for impact investment. <http://ventureburn.com/2016/02/southern-africa-fast-becoming-hotbed-impact-investment/> Date of access: 7 Dec. 2016.

Brenton, P.A. 1994. Estimation of cross-country consumption patterns: implications for carbon abatement policies. Birmingham, UK: University of Birmingham, Department of Economics.

Briassoulis, H. 1991. Methodological issues: tourism input-output analysis. *Annals of Tourism Research*, 18(3):485-495.

Brida, J.G., Cortes-Jimenez, I. & Pulina, M. 2016. Has the tourism-led growth hypothesis been validated? A literature review. *Current Issues in Tourism*, 19(5):394-430.

Briedenhann, J. & Wickens, E. 2004. Tourism routes as a tool for the economic development of rural areas—vibrant hope or impossible dream?. *Tourism Management*, 25(1):71-79.

British Broadcasting Corporation **see** BBC

Brou, D. & Ruta, M. 2006. Special interests and the gains from political integration. *Economics and Politics*, 18(2):191-218.

Brown, D.O. 1998. In search of an appropriate form of tourism for Africa: lessons from the past and suggestions for the future. *Tourism Management*, 19(3):237-245.

- Brown, D.O. 2000. Patterns of attitude change toward tourism development in Africa: A review of the last two decades. *Development Policy Management in Sub-Saharan Africa*, 7(1):5-7.
- Bruno, G.S. 2004. Estimation inference and Monte Carlo analysis in dynamic panel data models with small number of individuals. <http://www.tstat.it/novita/conferenze/bruno.pdf> Date of access: 8 Dec. 2016.
- Buddelmeyer, H., Jensen, P.H., Oguzoglu, U. & Webster, E. 2008. Fixed effects bias in panel data estimators. <http://ftp.iza.org/dp3487.pdf> Date of access: 8 Dec. 2016.
- Buhalis, D. 2000. Marketing the competitive destination of the future. *Tourism Management*, 21(1):97-116.
- Bukhari, S.A.H.A.S., Ahmad, M.H., Alam, S., Bukhari, S.S.H.A.S. & Butt, M.S. 2005. An empirical analysis of the Linder theory of international trade for South Asian countries. *The Pakistan Development Review*, 44(3):307-320.
- Bun, M.J. & Carree, M.A. 2005. Bias-Corrected Estimation in Dynamic Panel Data Models. *Journal of Business and Economic Statistics*, 23(2):200–210.
- Bun, M.J. & Klaassen, F.J. 2002. The importance of dynamics in panel gravity models of trade. UvA Econometrics Discussion Paper; No. 2002/18. Amsterdam: Department of Quantitative Economics. https://pure.uva.nl/ws/files/1258190/96155_439fulltext.pdf Date of access: 10 Dec. 2016.
- Burger, M., Van Oort, F. & Linders, G.J. 2009. On the specification of the gravity model of trade: zeros, excess zeros and zero-inflated estimation. *Spatial Economic Analysis*, 4(2):167-190.
- Burgis, T. 2015. The looting machine: warlords, tycoons, smugglers and the systematic theft of Africa's wealth. London, UK: HarperCollins Publishers Limited.
- Butler, E. 2011. The Condensed Wealth of Nations and the Incredibly Condensed Theory of Moral Sentiments. London, UK: ASI (Adam Smith Research Institute) Ltd.

Butler, R. & Russell, R. 2012. The role of individuals in the development and popularization of tourist destinations. (In Hsu, C.H.C. & Gartner, W.C., eds. *The Routledge Handbook of Tourism Research*. Oxon, UK: Routledge. p. 132-144).

Cai, L.A., Qui, H. & Li, G. 2007. Towards a competitive destination brand in a mass market. *Tourism Analysis*, 12(5/6):463-472.

Cantwell, J. 2005. Innovation and competitiveness. (In Fagerberg, J., ed. *The Oxford handbook of innovation*. Oxford, UK: Oxford University Press. p. 543-567).

Carbaugh, R. 2013. *International economics*. 14th ed. Mason, USA: Cengage Learning

Cárdenas-García, P.J., Sánchez-Rivero, M. & Pulido-Fernández, J.I. 2015. Does tourism growth influence economic development?. *Journal of Travel Research*, 54(2):206-221.

Cardoso, C. & Ferreira, L. 2000. The effects of European economic integration on tourism: challenges and opportunities for Portuguese tourism development. *International Journal of contemporary Hospitality management*, 12(7):401-409.

Carneiro, A. 2000. How does knowledge management influence innovation and competitiveness? *Journal of Knowledge Management*, 4(2):87-98.

Carrère, C. 2006. Revisiting the effects of regional trade agreements on trade flows with proper specification of the gravity model. *European Economic Review*, 50(2):223-247.

Centre d'Etudes Prospectives et d'Informations Internationales **see** CEPPI

Chakravarthy, B.S. 1986. Measuring strategic performance. *Strategic management journal*, 7(5):437-458.

Chang, S.C. & Lai, F.T. 2011. Intra-continental and intercontinental service trade in the travel and tourism industry. *Tourism Economics*, 17(5):963-982.

Chin, K.S., Pun, K.F. & Lau, H. 2003. Development of a knowledge-based self-assessment system for measuring organisational performance. *Expert Systems with Applications*, 24(4):443-455.

China Daily. 2015. China-Africa trade approaches \$300 billion in 2015. *China Daily*, 10 Nov. http://www.chinadaily.com.cn/business/2015-11/10/content_22417707.htm Date of access: 1 January 2016.

Cho, D.S. & Moon, H.C. 1998. A nation's international competitiveness in different stages of economic development. *Journal of Competitiveness Studies*, 6(1):5-9.

Cho, D.S. & Moon, H.C. 2013. From Adam Smith To Michael Porter: Evolution of Competitiveness Theory. Singapore: World Scientific Publishing.

Cho, D.S. 1994. A dynamic approach to international competitiveness: The case of Korea. *Asia pacific business review*, 1(1):17-36.

Christensen, L.R., Jorgenson, D.W. & Lau, L.J. 1973. Transcendental logarithmic production frontiers. *The Review of Economics and Statistics*, 1(1):28-45.

Cipollina, M. & Salvatici, L. 2010. The trade impact of European Union agricultural preferences. *Journal of Economic Policy Reform*, 13(1):87-106.

Ciuriak, D. & Kinjo, S. 2006. Trade Specialization in the Gravity Model of International Trade. (*In* Curtis, J.M. & Cuiuriak, D., eds. Trade Policy Research, 2005. Department of Foreign Affairs and International Trade. p. 189-197). <https://ssrn.com/abstract=1549323> Date of access: 10 Dec. 2016.

Ciuriak, D., Lapham, B., Wolfe, R., Collins-Williams, T. & Curtis, J.M. 2011. Firms in international trade: Towards a new new trade policy. Social Science Research Network, Rochester, NY. <http://qed.econ.queensu.ca/faculty/lapham/papers/NNTPNov14.pdf> Date of access: 10 Dec. 2016.

Cohen, S.S. 1994. Competitiveness: a reply to Krugman. *Foreign Affairs*, 73:3.

Cooper, C. & Hall, C.M. 2008. Contemporary tourism: an international approach. Oxford: Butterworth Heinemann.

Cortés-Jiménez, I., Durbarry, R. & Pulina, M. 2009. Estimation of outbound Italian tourism demand: a monthly dynamic EC-LAIDS model. *Tourism Economics*, 15(3):547-565.

- Costinot, A. 2009. An elementary theory of comparative advantage. *Econometrica*, 77(4):1165-1192.
- Croes, R. 2010. Measuring and explaining competitiveness in the context of small island destinations. *Journal of Travel Research*, 50(4):431–442.
- Crouch, G.I. 2011. Destination competitiveness: an analysis of determinant attributes. *Journal of Travel Research*, 50(1):27-45.
- Crouch, G.I. & Ritchie, J.B. 1995. Destination competitiveness and the role of the tourism enterprise. Working paper. University of Calgary: Faculty of Management. Paper presented at the Conference of the International Management Development Association (IMDA), Istanbul, Turkey, 13-16 July 1995.
- Crouch, G.I. & Ritchie, J.B. 1999. Tourism, competitiveness, and societal prosperity. *Journal of Business Research*, 44(3):137-152.
- Curtin, P., Feierman, S., Thompson, L. & Vansina, J. 1995. African history from earliest times to independence. 2nd ed. London, UK: Longman.
- De Mello, M.M. & Fortuna, N. 2005. Testing alternative dynamic systems for modelling tourism demand. *Tourism Economics*, 11(4):517-537.
- Debaere, P. & Demiroglu, U. 2003. On the similarity of country endowments. *Journal of International Economics*, 59(1):101-136.
- Delloitte. 2012. The rise and rise of the African middle class. Johannesburg, South Africa: Deloitte & Touche.
<https://www2.deloitte.com/content/dam/Deloitte/au/Documents/international-specialist/deloitte-au-aas-rise-african-middle-class-12.pdf> Date of access: 12 Dec. 2016.
- Department of Foreign Affairs **see** South Africa
- Department of Home Affairs **see** South Africa
- Deraniyagala, S. & Fine, B. 2001. New trade theory versus old trade policy: a continuing enigma. *Cambridge Journal of Economics*, 25(6):809-825.

Devlin, J. 2014. Africa's Emerging Market Boom.

<http://www.forbes.com/sites/riskmap/2014/03/10/africas-emerging-market-boom/#417585722ccf> Date of access: 7 Dec. 2016.

Dieke, P.U.C. 2000. Developing tourism in Africa: issues for policy consideration. *Development Policy Management in Sub-Saharan Africa*, 7(1):19-26.

Dieke, P.U.C. 2003. Tourism in Africa's economic development: policy implication. *Management Decision*, 41(3):287-295.

Dimanche, F. 2005. Conceptual framework for city tourism competitiveness. Paper presented at the WTO Forum, Istanbul, Turkey, 1-3 June.
<http://www.estig.ipbeja.pt/~aibpr/Ensino/EngDesenvTur/MaterialdeApoio/2semestre/CroucheRitchie/AplicacaoDoModelo.pdf> Date of access: 11 Feb. 2014.

Divisekera, S. 2013. Tourism demand models: concepts and theories. (*In* Tisdell, C.A. ed., *Handbook of tourism economics: analysis, new applications and case studies*. Singapore: World Scientific Publishing. p. 33-66).

Dixit, A.K. & Stiglitz, J.E. 1977. Monopolistic competition and optimum product diversity. *The American Economic Review*, 67(3):297-308.

Dixon, R. 2015. Cases of Ebola recede in West Africa, but fears of recurrence remain.
<http://www.latimes.com/world/africa/la-fg-west-africa-ebola-receding-20150609-story.html>
Date of access: 5 Dec. 2016.

Dorman, P. 2013. *Microeconomics. A Fresh start*. Springer Texts in Business and Economics. Berlin, Heidelberg: Springer-Verlag Berlin Heidelberg.

Dorman, P. 2014. *Microeconomics: a fresh start*. Berlin, Heidelberg: Springer-Verlag Berlin Heidelberg.

Dorobăţ, C.E. 2015. A brief history of international trade thought: from pre-doctrinal contributions to the 21st century heterodox international economics. *The Journal of Philosophical Economics: Reflections on Economic and Social Issues*, VIII(2):106-137.

- Drukker, D.M. 2010. An introduction to GMM estimation using Stata.
http://www.stata.com/meeting/germany10/germany10_drukker.pdf Date of access: 8 Dec. 2016.
- Du Toit, L., Fourie, J. & Trew, D. 2010. The sources of comparative advantage in tourism. Working paper (No. 01/2010). Stellenbosch: Stellenbosch University, Department of Economics. www.ekon.sun.ac.za/wpapers/2010/wp012010/wp-01-2010.pdf Date of access: 11 Dec. 2016.
- Dunning, J.H. 1993. Internationalizing Porter's diamond. *MIR: Management International Review*, 33(2-1):7-15.
- Dupeyras, A. & MacCallum, N. 2013. Indicators for measuring competitiveness in tourism: a guidance document. OECD Tourism Papers (No 02/2013). Paris: OECD Publishing.
<http://www.oecd.org/cfe/tourism/Indicators%20for%20Measuring%20Competitiveness%20in%20Tourism.pdf> Date of access: 11 Dec. 2016.
- Durbarry, R. & Sinclair, M.T. 2003. Market shares analysis: The case of French tourism demand. *Annals of Tourism Research*, 30(4):927-941.
- Dutt, P., Mitra, D. & Ranjan, P. 2009. International trade and unemployment: Theory and cross-national evidence. *Journal of International Economics*, 78(1):32-44.
- Dwyer, L. & Kim, C. 2001. Destination Competitiveness: A Model and Determinants.
<http://citeseerx.ist.psu.edu/viewdoc/download?rep=rep1&type=pdf&doi=10.1.1.201.8101>
 Date of access: 12 Dec. 2016.
- Dwyer, L. & Kim, C. 2003. Destination competitiveness: determinants and indicators. *Current Issues in Tourism*, 6(5):369-414.
- Dwyer, L., Forsyth, P. & Papatheodorou, A. 2011. Economics of tourism. (In Cooper, C., ed. Contemporary Tourism Reviews. Oxford, UK: Goodfellow Publishers. p. 1-29).
- Dwyer, L., Forsyth, P. & Rao, P. 2000. The price competitiveness of travel and tourism: a comparison of 19 destinations. *Tourism Management*, 21(1):9-22.

Dwyer, L., Forsyth, P. & Rao, P. 2002. Destination price competitiveness: Exchange rate changes versus domestic inflation. *Journal of travel research*, 40(3):328-336.

EAC. 2015a. Environment and Natural Resources. <http://www.eac.int/sectors/environment-and-natural-resources> Date of access: 7 Dec. 2016.

EAC. 2015b. Infrastructure. <http://www.eac.int/sectors/infrastructure> Date of access: 7 Dec. 2016.

EAC. 2015c. Trade. <http://www.eac.int/sectors/trade> Date of access: 7 Dec. 2016.

EAC. 2015d. Tourism and Wildlife Management. <http://www.eac.int/sectors/tourism-and-wildlife-management> Date of access: 7 Dec. 2016.

East African Community **see** EAC

Economic Community of West African States **see** ECOWAS

Economy Watch. 2016. Africa Union Strives for Political and Economic Integration. <http://www.economywatch.com/features/Africa-Union-Strives-for-Political-and-Economic-Integration0602.html> Date of access: 7 Dec. 2016.

ECOWAS. 2015a. Infrastructure. <https://www.ecowas.int/ecowas-sectors/infrastructure/> Date of access: 7 Dec. 2016.

ECOWAS. 2015b. Trade. <https://www.ecowas.int/ecowas-sectors/trade/> Date of access: 7 Dec. 2016.

ECOWAS. 2015c. Political Affairs. <https://www.ecowas.int/ecowas-sectors/political-affairs/> Date of access: 7 Dec. 2016.

ECOWAS. 2015d. Travel. <https://www.ecowas.int/life-in-the-community/education-and-youth/> Date of access: 7 Dec. 2016.

Egger, P. 2002. An econometric view on the estimation of gravity models and the calculation of trade potentials. *The World Economy*, 25(2):297-312.

- Eilat, Y. & Einav, L. 2004. Determinants of international tourism: a three-dimensional panel data analysis. *Applied Economics*, 36(12):1315-1327.
- Eja, E.I., Joseph, K.U. & Ojong, F.E. 2012. Success factors determining Nigeria as a tourist destination. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(4):426-432.
- Erickson, T. & Whited, T.M. 2002. Two-step GMM estimation of the errors-in-variables model using high-order moments. *Econometric Theory*, 18(03):776-799.
- Esterhuysen, P. 2013. Africa A to Z: Continent and Country Profiles. South Africa: Africa Institute of South Africa.
- EU. 2016a. The euro. http://ec.europa.eu/economy_finance/euro/index_en.htm Date of access: 16 Dec. 2016.
- EU. 2016b. Why the euro? http://ec.europa.eu/economy_finance/euro/why/index_en.htm Date of access: 16 Dec. 2016.
- European Commission **see** EU
- Exploring Africa. 2015a. North African economies. <http://exploringafrica.matrix.msu.edu/curriculum/unit-four/module-sixteen/module-sixteen-activity-four/> Date of access: 7 Dec. 2016.
- Exploring Africa. 2015b. Colonial exploration and conquest in Africa. <http://exploringafrica.matrix.msu.edu/colonial-exploration-and-conquest-in-africa-explore/> Date of access: 7 Dec. 2016.
- Fage, J.D. & Tordoff, W. 2013. A history of Africa. New York, USA: Routledge.
- Fagerberg, J. 1995. User-producer interaction, learning and comparative advantage. *Cambridge Journal of Economics*, 19 (1): 243-243.
- Fally, T. 2015. Structural gravity and fixed effects. *Journal of International Economics*, 97(1):76-85.

Falola, T. 2002. Africa: Volume 4: The end of colonial rule: nationalism and decolonization. Durham, NC: Carolina Academic Press.

Fayissa, B., Nsiah, C. & Tadasse, B. 2008. Impact of tourism on economic growth and development in Africa. *Tourism Economics*, 14(4):807-818.

Ferrer-Rosell, B., Coenders, G. & Martínez-Garcia, E. 2015. Determinants in tourist expenditure composition—the role of airline types. *Tourism Economics*, 21(1):9-32.

Fourie, J. 2009. Evaluating Africa's comparative advantage in travel service exports. Working paper (No. 06/2009). Stellenbosch: Stellenbosch University, Department of Economics. <http://www.ekon.sun.ac.za/wpapers/2009/wp062009/wp-06-2009.pdf> Date of access: 11 Dec. 2016.

Fourie, J. 2011. Travel service exports as comparative advantage in South Africa. *South African Journal of Economic and Management Sciences*, 14(2):210-228.

Fourie, J. & Santana-Gallego, M. 2011. The determinants of African tourism. Working Paper. Stellenbosch: Stellenbosch University, Department of Economics. http://www.econrsa.org/system/files/publications/working_papers/wp260.pdf Date of access: 11 Dec. 2016.

Fourie, J. & Santana-Gallego, M. 2013. The determinants of African tourism. *Development Southern Africa*, 30(3):347-366.

Fourie, J., Rosselló, J. & Santana-Gallego, M. 2015. Religion, religious diversity and tourism. *Kyklos*, 68(1):51-64.

Frankel, J.A. 2010. The natural resource curse: a survey (No. w15836). National Bureau of Economic Research. https://dash.harvard.edu/bitstream/handle/1/4454156/Frankel_NaturalResource.pdf?sequence=1 Date of access: 7 Dec. 2017.

Freeman, R.E. 1994. The politics of stakeholder theory: Some future directions. *Business Ethics Quarterly*, 4(4):409-421.

Frost, F.A. & Shankar, T. 2001. Cape to Cairo—Can the dream be realised?. *Journal of Vacation Marketing*, 7(3):235-244.

Fry, R. 2015. International trade. Jersey City, NJ: Clanrye International.

Fyall, A. 2011. Destination Management: Challenges and Opportunities. Tourism Destination Marketing and Management: Collaborative Strategies. (In Wang, Y. & Pizam, A., eds. Destination Marketing and Management. Theories and Applications. Wallingford, UK: CABI. p. 340-357).

Gandolfo, G. 2014. International Trade Theory and Policy. Berlin, Heidelberg: Springer-Verlag Berlin Heidelberg.

Garín-Muñoz, T. 2006. Inbound international tourism to Canary Islands: a dynamic panel data model. *Tourism Management*, 27(2):281-291.

Garín-Muñoz, T. & Amaral, T.P. 2000. An econometric model for international tourism flows to Spain. *Applied Economics Letters*, 7(8):525-529.

Geohive. 2015. Urban /rural division of countries for the years 2015 and 2025. http://www.geohive.com/earth/pop_urban.aspx Date of access: 7 Dec. 2016.

George, R. & Booyens, I. 2014. Township tourism demand: Tourists' perceptions of safety and security. *Urban Forum*, 25(4):449-467.

Gholipour, H.F., Tajaddini, R. & Al-mulali, U. 2014. Does personal freedom influence outbound tourism? *Tourism Management*, 41(1):19-25.

Gil-Pareja, S., Llorca-Vivero, R. & Martínez-Serrano, J.A. 2014. Do nonreciprocal preferential trade agreements increase beneficiaries' exports?. *Journal of Development Economics*, 107(C):291-304.

Gil-Pareja, S., Llorca-Vivero, R. & Martínez-Serrano, J.A. 2007. The effect of EMU on tourism. *Review of International Economics*, 15(2):302-312.

Goeldner, C. & Ritchie, B. 2012. Tourism principles, practices and philosophies. New Jersey, USA: John Wiley and Sons.

Gong, Q. 2012. The Positive and Negative Economic Contributions of Mega-sporting Events to Local Communities. Dissertation, University of Nevada, Las Vegas. Available at: <https://digitalscholarship.unlv.edu/thesesdissertations/1362/>

Graham, A. 2000. Demand for leisure air travel and limits to growth. *Journal of Air Transport Management*, 6(2):109-118.

Greenaway, D. 1993. Liberalising foreign trade through rose-tinted glasses. *The Economic Journal*, 103(416):208-222.

Gu, Z. & Gao, J.Z. 2012. Financial competitiveness of Macau in comparison with other gaming destinations. *UNLV Gaming Research and Review Journal*, 10(2):1-12.

Guan, J.C., Yam, R.C., Mok, C.K. & Ma, N. 2006. A study of the relationship between competitiveness and technological innovation capability based on DEA models. *European Journal of Operational Research*, 170(3):971-986.

Gujarati, D.N. 2006. Essentials of Econometrics. 3rd ed. Singapore: McGraw-Hill Education.

Gujarati, D.N. & Porter, D.C. 2009. Basic econometrics. Boston, Mass: McGraw-Hill.

Han, Z., Durbarry, R. & Sinclair, M.T. 2006. Modelling US tourism demand for European destinations. *Tourism Management*, 27(1):1-10.

Hanafiah, M.H., Harun, M.F. & Jamaluddin, M.R. 2010. Bilateral trade and tourism demand. *World Applied Sciences Journal*, 10:110-114.

Hanafiah, M.H.M. & Harun, M.F.M. 2010. Tourism Demand in Malaysia: A cross-sectional pool time-series analysis. *International Journal of Trade, Economics and Finance*, 1(1):80-83.

Hassan, S.S. 2000. Determinants of market competitiveness in an environmentally sustainable tourism industry. *Journal of Travel Research*, 38(3):239-245.

Haugland, S.A., Ness, H., Grønseth, B.O. & Aarstad, J. 2011. Development of tourism destinations: An integrated multilevel perspective. *Annals of Tourism Research*, 38(1):268-290.

- Heath, E. 2003. Towards a model to enhance destination competitiveness: A Southern African perspective.
[http://www.repository.up.ac.za/dspace/bitstream/handle/2263/6058/Heath_Towards\(2003\).pdf?sequence=1](http://www.repository.up.ac.za/dspace/bitstream/handle/2263/6058/Heath_Towards(2003).pdf?sequence=1) Date of access: 11 Dec. 2016.
- Heath, E. & Kruger, E. 2009. Branding and positioning an African capital city: the case of Tshwane in South Africa. (In Maitland, R. & Ritchie, B., eds. *City tourism: national capital perspective*. Wallingford, UK: CABI Publishers. p. 62-76).
- Heckscher, E. 1919. The Effect of Foreign Trade on the Distribution of Income. *Ekonomisk Tidskrift*, 21:497–512.
- Hjalager, A.M. 2007. Stages in the economic globalization of tourism. *Annals of Tourism Research*, 34(2):437-457.
- Hong, S.W.C. 2008. Competitiveness in the tourism sector: a comprehensive approach from economic and management points. New York, USA: Physica-Verlag Heidelberg.
- Hunt, S.D. & Morgan, R.M. 1995. The comparative advantage theory of competition. *The Journal of Marketing*, 59(1995):1-15.
- Huq, M.M., Clunies-Ross, A. & Forsyth, D. 2009. Development economics. London, UK: McGraw Hill.
- Hyde-Price, A. 1997. The new pattern of international relations in Europe. (In Landau, A. & Whitman, R.G., eds. *Rethinking the European Union*. London, UK: Palgrave Macmillan UK. p 15-35).
- IATA. 2014. Transforming Intra-African Air Connectivity: The Economic Benefits of Implementing the Yamoussoukro Decision.
https://www.iata.org/whatwedo/Documents/economics/InterVISTAS_AfricaLiberalisation_FinalReport_July2014.pdf Date of access: 7 Dec. 2016.
- Idowu, K.O. & Bello, A.K. 2010. What Are the Factors Determining Tourists Destinations in Africa? *Pakistan Journal of Social Sciences*, 7(4):301-303.

Imbens, G.W. 1997. One-step estimators for over-identified generalized method of moments models. *The Review of Economic Studies*, 64(3):359-383.

IMF. 2013. Central African Economic and Monetary Community (CEMAC): 2013 Staff Report on Common Policies for Member Countries.

<http://www.imf.org/external/pubs/cat/longres.aspx?sk=41042.0> Date of access: 7 Dec. 2016.

International Air Travel Association **see** IATA

International Financial Statistics **see** IFS

International Monetary Fund **see** IMF

Investopedia. 2015. Trade.

<http://www.investopedia.com/terms/t/trade.asp?ad=dirN&qo=investopediaSiteSearch&qsrc=0&o=40186> Date of access: 12 Dec. 2016.

Ivanova, I., Arcelus, F.J. & Srinivasan, G. 1999. An assessment of the measurement properties of the human development index. *Social Indicators Research*, 46(2):157-179.

Jackman, M., Lorde, T., Lowe, S. & Alleyne, A. 2011. Evaluating tourism competitiveness of small island developing states: a revealed comparative advantage approach. *Anatolia*, 22(3):350-360.

Jara-Díaz, S.R. 1998. Time and income in travel demand: towards a microeconomic activity framework. *Theoretical Foundations of Travel Choice Modelling*. Elsevier.

https://www.researchgate.net/publication/228886939_Time_and_income_in_travel_demand_towards_a_microeconomic_activity_framework Date of access: 8 Dec. 2016.

Jaworski, A. & Lawson, S. 2005. Discourse of Polish Agri-tourism: Global, local, pragmatic. (In Jaworski, A. & Pritchard, A., eds. *Discourse, Communication, and Tourism*. 5th ed. Clevedon, UK: Channel View Publications. p. 123-149).

Jin, B. & Moon, H.C. 2006. The diamond approach to the competitiveness of Korea's apparel industry: Michael Porter and beyond. *Journal of Fashion Marketing and Management: An International Journal*, 10(2):195-208.

Jones, R.W. 2008. Heckscher-Ohlin trade flows: a re-appraisal. *Trade and Development Review*, 1(1):1-6.

Jonker, J.A. 2004. International destination competitiveness model. Pretoria: UP. (Thesis-PhD).

Judson, R.A. & Owen, A.L. 1999. Estimating dynamic panel data models: a guide for macroeconomists. *Economics Letters*, 65(1):9-15.

Kamau, A.W., Muluvi, A.S. & Rettig, M. 2013. The African Union Can Do More to Support Regional Integration. <https://www.brookings.edu/blog/up-front/2013/05/17/the-african-union-can-do-more-to-support-regional-integration/> Date of access: 7 Dec. 2015.

Kaplan, M. & Çelik, T. 2008. The impact of tourism on economic performance: The case of Turkey. *The International Journal of Applied Economics and Finance*, 2(1):13-18.

Kareem, O.I. 2008. A Panel Data Analysis of Demand for Tourism in Africa, Proceedings of the 14th Annual Conference on African Econometric Society, July 2008, Cape Town, South Africa, 1-27.

Kareem, O.I. 2009. A dynamic panel analysis of the effects of international tourism exports on African Economic Growth. Paper Presented at the 14th African Econometrics Society (AES) conference in Abuja, Nigeria, July 2009.
<http://www.africametrics.org/documents/conference09/papers/Kareem.pdf> Date of access: 8 Dec. 2016.

Kareem, O.I., & Ajide, B.K. 2010. What are the factors determining tourists destinations in Africa?. *Pakistan Journal of Social Sciences*, 4(4):301-303.

Kareem, O.I. 2013. A reassessment of tourism-exports led growth hypothesis in Africa. *American Journal of Tourism Research*, 2(1):130-140.

Kato, A. & Mak, J. 2013. Technical progress in transport and the tourism area life cycle. (In Tisdell, C.A., ed. Handbook of tourism economics: analysis, new applications and case studies. Singapore: World Scientific Publishing. p. 225-256).

Kayar, C.H. & Kozak, N. 2010. Measuring destination competitiveness: an application of the travel and tourism competitiveness index (2007). *Journal of Hospitality Marketing and Management*, 19(3):203-216.

Kester, J.G.C. 2003. International tourism in Africa. *Tourism Economics*, 9(2):203-221.

Keum, K. 2010. Tourism flows and trade theory: a panel data analysis with the gravity model. *The Annals of Regional Science*, 44(3):541-557.

Khadaroo, J. & Seetanah, B. 2008. The role of transport infrastructure in international tourism development: A gravity model approach. *Tourism Management*, 29(5):831-840.

Khapoya, V.B. 2016. The African Experience. 4th ed. London, UK: Routledge.

Khunou, P.S., Reynish, N., Pawson, R., Tseane, L. & Ivanovic, M. 2009. Fresh Perspective: Tourism Development. Cape Town, South Africa: Pearson.

Kibara, O.N., Odhiambo, N.M. & Njuguna, J.M. 2012. Tourism and economic growth in Kenya: an empirical investigation. *The International Business and Economics Research Journal*, 1(5):517-528.

Kim, D. & Marion, B.W. 1997. Domestic market structure and performance in global markets: Theory and empirical evidence from US food manufacturing industries. *Review of Industrial Organization*, 12(3):335-354.

Kirchgässner, G., Wolters, J. & Hassler, U. 2013. Nonstationary processes. (In Kirchgässner, G. & Wolters, J., eds. Introduction to modern time series analysis. Berlin, Heidelberg: Springer. p. 155-203).

Kiviet, J.F. 1995. On bias, inconsistency, and efficiency of various estimators in dynamic panel data models. *Journal of Econometrics*, 68(1):53-78.

Knudsen, M.A., Rich, J. & Nielsen, O.A. 2014. Danish long distance travel A study of Danish travel behaviour and the role of infrequent travel activities.
http://orbit.dtu.dk/files/110152564/Long_Distance_Travel_2_.pdf Date of access: 7 Dec. 2016.

- Koike, A. & Yoshino, D. 2014. Short- and long-run structural international tourism demand modeling base on the dynamic AIDS model: Empirical Research in Japan. *Asian Transport Studies*, 3(1):125-142.
- Kotlewski, D.C. 2013. Impact of International Trade on Economic Growth. *Gospodarka Narodowa*, 1(2013):5-29.
- Kôvári, I. & Zimányi, K. 2011. Safety and security in the age of global tourism. *Applied Studies in Agribusiness and Commerce*, 5(3-4):59-61.
- Krugman, P.R. 1979. Increasing returns, monopolistic competition, and international trade. *Journal of International Economics*, 9(4): 469-479.
- Krugman, P.R 1980. Scale economies, product differentiation, and the pattern of trade. *The American Economic Review*, 70(5):950-959.
- Krugman, P.R. 1987. Is free trade passé?. *The Journal of Economic Perspectives*, 1(2):131-144.
- Krugman, P.R 1994. Competitiveness: a dangerous obsession. *Foreign affairs*, 73(2):28-44.
- Kuo, H., Liu, K.E. & Chen, C. 2014. Modeling Japanese Tourism Demand for Asian Destinations: A Dynamic AIDS Approach. *Asia Pacific Journal of Tourism Research*, 19(1):86-102.
- Kweka, J., Morrissey, O. & Blake, A. 2003. The economic potential of tourism in Tanzania. *Journal of International Development*, 15(3):335-351.
- Lall, S. 2001. Competitiveness, technology and skills. Northampton, MA: Edward Elgar.
- Lancaster, K. 1980. Intra-industry trade under perfect monopolistic competition. *Journal of International Economics*, 10(2): 151-175.
- Lawson, R.A. & Roychoudhury, S. 2016. Do travel visa requirements impede tourist travel?. *Journal of Economics and Finance*, 40(4):817–828
- Lechene, V. & Preston, I. 2011. Noncooperative household demand. *Journal of Economic Theory*, 146(2):504-527.

Lee, C.C. & Chang, C.P. 2008. Tourism development and economic growth: A closer look at panels. *Tourism Management*, 29(1):180-192.

Lee, C.F. & King, B. 2006. Assessing destination competitiveness: an application to the hot springs tourism sector. Unpublished report. Melbourne, Australia: Victoria University.
http://vuir.vu.edu.au/3026/1/Assessing_destination_competitiveness.pdf Date of access: 11 Dec. 2016.

Leiper, N. 2004. The framework of tourism: towards a definition of tourism, tourist and the tourist industry. (In Williams, S., ed. *Tourism. Critical concepts in the social sciences*. Volume 1: The nature and structure of tourism. London, UK: Taylor & Francis. p. 25-44).

Leitão, N.C. 2010. Financial development and economic growth: a panel data approach. *Theoretical and Applied Economics*, XVII(10):15-24.

Leontief, W. 1953. Studies in the structure of the American economy: theoretical and empirical explorations in input- output analysis. Harvard Economic Research Project. White Plains, N.Y. : International Arts and Sciences.

Lepp, A., Gibson, H. & Lane, C. 2011. Image and perceived risk: A study of Uganda and its official tourism website. *Tourism Management*, 32(3):675-684.

Levin, J. & Milgrom, P. 2004. Introduction to Choice Theory.
<http://web.stanford.edu/~jdlevin/Econ%20202/Choice%20Theory.pdf> Date of access: 10 Dec. 2016.

Lewbel, A. & Ng, S. 2005. Demand systems with nonstationary prices. *Review of Economics and Statistics*, 87(3):479-494.

Li, G., Song, H. & Witt, S.F. 2004. Modeling tourism demand: A dynamic linear AIDS approach. *Journal of Travel Research*, 43(2):141-150.

Li, L.X. 2000. An analysis of sources of competitiveness and performance of Chinese manufacturers. *International Journal of Operations & Production Management*, 20(3):299-315.

- Li, S. & Song, H. 2013. Economic impacts of visa restrictions on tourism: A case of two events in China. *Annals of Tourism Research*, 43(2013):251-271.
- Lim, C. 1997. Review of international tourism demand models. *Annals of Tourism Research*, 24(4):835–849.
- Linder, S.B. 1961. An essay on trade and transformation (pp. 82-109). Stockholm: Almqvist & Wiksell. <https://ex.hhs.se/dissertations/221624-FULLTEXT01.pdf> Date of access: 10 Dec. 2016.
- Linder, S.B. 1961. An essay on trade and transformation. Stockholm, Almqvist & Wiksell; New York, J. Wiley.
- Lorde, T., Li, G. & Airey, D. 2015. Modeling Caribbean Tourism Demand An Augmented Gravity Approach. *Journal of Travel Research*, 1(2015):1-11.
- Lucas, R. 1988. On the mechanics of economic development. *Journal of Monetary Economics*, 22(1):3-42.
- Lundvall, B.A. 2009. The BRICS countries and Europe. (In Cassiolato, J.E. & Vitorino, V., eds. BRICS and development alternatives: innovation systems and policies. London: Anthem Press. p. xv-xvi).
- Mabogunje, A. 2015. Challenges for local government in Africa. <https://www.youtube.com/watch?v=o8-NUko6wb4> Date of access: 12 Dec. 2016. [Podcast].
- Madyo, M.R. 2009. The importance of regional economic integration in Africa. <http://uir.unisa.ac.za/bitstream/handle/10500/2075/dissertation.pdf?sequence=1&isAllowed=y> Date of access: 7 Dec. 2016.
- Mangion, M., Cooper, C., Cortéz-Jimenez, I. & Durbarry, R. 2012. Measuring the Effect of Subsidization on Tourism Demand and Destination Competitiveness through the AIDS Model: An Evidence-Based Approach to Tourism Policymaking. *Tourism Economics*, 18(6):1251-1272.
- Mankiw, N.G. 2011. Principles of microeconomics. 6th ed. Mason, USA: Cengage Learning.
- Markusen, J.R. 2013. Putting per-capita income back into trade theory. *Journal of International Economics*, 90(2):255-265.

- Mátyás, L. 1997. Proper econometric specification of the gravity model. *The World Economy*, 20(3):363-368.
- Mayaka, M.A. & Prasad, H. 2012. Tourism in Kenya: An analysis of strategic issues and challenges. *Tourism Management Perspectives*, 1(2012):48-56.
- Mazanec, J.A. & Ring, A. 2011. Tourism destination competitiveness: second thoughts on the World Economic Forum reports. *Tourism Economics*, 17(4):725-751.
- Mazanec, J.A., Wöber, K. & Zins, A.H. 2007. Tourism destination competitiveness: from definition to explanation?. *Journal of Travel Research*, 46(1):86-95.
- McCulloch, R. 2005. Protection and Real Wages: The Samuelsonian Economics and the Twenty-First Century. <http://people.brandeis.edu/~rmccullo/wp/Stolper-Samuelson0405.pdf>
Date of access: 6 Dec. 2016.12.06
- Medlik, S. 2012. Dictionary of travel, tourism and hospitality. 3rd ed. New York, USA: Routledge.
- Mehmetoglu, M. & Engen, M. 2011. Pine and Gilmore's concept of experience economy and its dimensions: an empirical examination in tourism. *Journal of Quality Assurance in Hospitality and Tourism*, 12(4):237-255.
- Melian-Gonzalez, A. & Garcia-Falcon, J.M. 2003. Competitive potential of tourism in destinations. *Annals of Tourism Research*, 30(3):720-740.
- Mello, M.D., Pack, A. & Sinclair, M.T. 2002. A system of equations model of UK tourism demand in neighbouring countries. *Applied Economics*, 34(4):509-521.
- Michaels, G. 2008. The effect of trade on the demand for skill: evidence from the interstate highway system. *The Review of Economics and Statistics*, 90(4):683-701.
- Mileva, E. 2007. Using Arellano-Bond dynamic panel GMM estimators in Stata. <https://www.researchgate.net/file.PostFileLoader.html?id=575fcb0a217e200cb31d2f1f&assetKey=AS%3A372807700631552%401465895690276> Date of access: 8 Dec. 2016.

Mill, R.C. 2008. Managing labour productivity. (In Jones, P. & Pizam, A., eds. Handbook of hospitality operations and IT. Oxford: Butterworth Heinemann. p. 269-294).

Mishra, S., Lundström, S. & Anand, R. 2011. Service export sophistication and economic growth. <http://documents.worldbank.org/curated/en/170221468339911476/pdf/WPS5606.pdf>
Date of access: 8 Dec. 2016.

Mitschke, A. 2008. The Influence of National Competition Policy on the International Competitiveness of Nations: A Contribution to the Debate on International Competition Rules. Physica Verlag, Heilderberg: Springer Science & Business Media.

Mohr. P. 2012. Understanding macroeconomics. Pretoria, SA: Van Schaik.

Moilanen, T. & Rainisto, S. 2009. How to brand nations, cities and destinations: a planning book for place branding. London, UK: Palgrave MacMillan.

Moon, H.C., Rugman, A.M. & Verbeke, A. 1998. A generalized double diamond approach to the global competitiveness of Korea and Singapore. *International Business Review*, 7(2):135-150.

Moon, S., Sekwat, A. & Stanley, R.E. 2004. Testing the assumptions of pooled time series cross-sectional regression analysis through ARIMA and interrupted time series modeling: Beck and Katz revisited.
https://www.researchgate.net/profile/Alex_Sekwat/publication/228423913_Testing_the_Assumptions_of_Pooled_Time_Series_Cross-Sectional_Regression_Analysis_Through_ARIMA_and_Interrupted_Time_Series_Modeling_Beck_and_Katz_Revisited/links/544174fd0cf2e6f0c0f62561.pdf Date of access: 8 Dec. 2016.

Morgan, N., Pritchard, A. & Pride, R. 2004. Destination branding: creating the unique destination proposition. Oxford, UK: Elsevier Butterworth-Heinemann.

Morley, C., Rosselló, J. & Santana-Gallego, M. 2014. Gravity models for tourism demand: theory and use. *Annals of Tourism Research*, 48(2014):1-10.

Moufakkir, O. 2010. The Pay for In-Flight Food and Drinks Policy and Its Impact on Travelers' Experience. *Tourism Analysis*, 15(1):99-110.

Muchapondwa, E. & Pimhidzai, O. 2008. Modelling International Tourism Demand for Zimbabwe. Working paper nr 107. School of Economics, University of Cape Town.
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.497.8703&rep=rep1&type=pdf>
Date of access: 16 Dec. 2016.

Muhammad, A. & Andrews, D. 2008. Determining Tourist Arrivals in Uganda: The Impact of Distance, Trade and Origin-Specific Factors. *African Journal of Accounting, Economics, Finance and Banking Research*, 2(2):51-62.

Naldi, G.J. & Magliveras, K.D. 1999. The African economic community: emancipation for African states or yet another glorious failure? *North Carolina Journal of International Law and Commercial Regulation*, 24(1):601-727.

National Bureau of Statistics **see** NBS

National Geographic. 2016. Map of Human Migration.
<https://genographic.nationalgeographic.com/human-journey/> Date of access: 9 Dec. 2016.

Naudé, W. 2007. Geography and development in Africa: Overview and implications for regional cooperation. WIDER Discussion Papers, World Institute for Development Economics (UNU-WIDER), No. 2007/03.
<https://www.econstor.eu/bitstream/10419/84656/1/546169074.pdf> Date of access: 6 Dec. 2016.

Naudé, W. & Saayman, A. 2005. Determinants of tourist arrivals in Africa: a panel data regression analysis. *Tourism Economics*, 11(3):365-391.

Naveed, A., Prean, N. & Rabas, A. 2011. Dynamic Panel Data Models.
http://homepage.univie.ac.at/robert.kunst/pan2011_pres_rabas.pdf Date of access: 8 Dec. 2016. [PowerPoint presentation].

Navickas, V. & Malakauskaite, A. 2015. The possibilities for the identification and evaluation of tourism sector competitiveness factors. *Engineering Economics*, 61(1):37-44.

NBS. 2014. The 2012 International Visitors' Exit Survey Report.
<https://wedocs.unep.org/rest/bitstreams/18019/retrieve> Date of access: 7 Dec. 2016.

Negishi, T. 2014. History of Economic Theory: Volume 26 of Advanced Textbooks in Economics. New York, USA: Elsevier.

NEPAD. 2004. Tourism action plan. Discussion document prepared for the 41st Meeting of the World Tourism Organization (WTO) Commission for Africa, 10–13 May, Mahe, Seychelles. <http://www.e-unwto.org/doi/pdf/10.18111/9789284410590> Date of access: 12 Dec. 2016.

Neumayer, M. 2011. Safety and Security in Tourism.
https://www.modul.ac.at/uploads/files/Theses/Bachelor/Thesis-2011-Neumayer-Marlen_Susanne.pdf Date of access: 7 Dec. 2016.

New Partnership for Africa's Development **see** NEPAD

New Zealand Tourism Research Institute **see** NZTRI

Njoloma, E. 2010. A study of intra-African relations: an analysis of the factors informing the foreign policy of Malawi towards Zimbabwe. Grahamstown: Rhodes University. (Dissertation-Masters).

NZTRI. 2007. Food & Beverage Service Sector Productivity Study. Wellington, New Zealand: The Workplace Group, New Zealand Department of Labour.
<http://aut.researchgateway.ac.nz/bitstream/handle/10292/1611/p-foodandbeverage.pdf?sequence=2> Date of access: 7 Dec. 2016.

OECD. 2001. Measuring Productivity. OECD Manual. Measurement of aggregate and industry-level productivity growth. <https://www.oecd.org/std/productivity-stats/2352458.pdf> Date of access: 7 Dec. 2016.

OECD. 2015. African Economic Outlook 2015.
www.africaneconomicoutlook.org/sites/default/files/content-pdf/AEO2015_EN.pdf Date of access: 7 Dec. 2016.

Oh, H., Fiore, A.M. & Jeoung, M. 2007. Measuring experience economy concepts: tourism applications. *Journal of Travel Research*, 46(2):119-132.

Ohlin, B. 1933. *Interregional and International Trade*. Cambridge, MA: Harvard University Press.

Open Africa. 2015. New tourism offering exposes travellers to real, local experiences. <http://www.openafrica.org/> Date of access: 7 Dec. 2016.

Opp, M.M., Sonnenschein, H.F. & Tombazos, C.G. 2009. Rybczynski's theorem in the Heckscher–Ohlin world—anything goes. *Journal of International Economics*, 79(1):137-142.

Oral, M. & Reisman, A. 1988. Measuring industrial competitiveness. *Industrial Marketing Management*, 17(3):263-272.

Oral, M. 1986. An industrial competitiveness model. *IIE transactions*, 18(2):148-157.

Oral, M. 1993. A methodology for competitiveness analysis and strategy formulation in glass industry. *European Journal of Operational Research*, 68(1):9-22.

Organization for Economic Co-operation and Development **see** OECD

Ottaviano, G.I. 2011. 'New' new economic geography: firm heterogeneity and agglomeration economies. *Journal of Economic Geography*, 11(2):231-240

Oyewole, P. 2004. International tourism marketing in Africa: An assessment of price competitiveness using the purchasing power parities of the ICP. *Journal of Travel and Tourism Marketing*, 16(1):3-17.

Page, S. 2012. *Tourism management: managing for change*. 3rd ed. Oxford, UK: Butterworth Heinemann Elsevier.

Page, S., Song, H. & Wu, D.C. 2011. Assessing the impacts of the global economic crisis and swine flu on inbound tourism demand in the United Kingdom. *Journal of Travel Research*, 51(2):142-153.

Page, S.J. & Connell, J. 2014. *Tourism: a modern synthesis*. 4th ed. Andover, UK: Cengage Learning EMEA.

Papatheodorou, A. 1999. The demand for international tourism in the Mediterranean region. *Applied Economics*, 31(5):619-630.

Papatheodorou, A. & Zenelis, P. 2013. The importance of the air transport sector for tourism. (In Tisdell, C.A., ed. *Handbook of tourism economics: analysis, new applications and case studies*. Singapore: World Scientific Publishing. p. 207-224).

Parker, J. & Rathbone, R. 2007. *African history: a very short introduction*. 6th ed. Oxford, UK: Oxford University Press.

Pearce, D.G. & Schänzel, H.A. 2013. Destination management: The tourists' perspective. *Journal of Destination Marketing and Management*, 2(3):137-145.

Pechlaner, H., Hedorfer, P. & Tödter, N. 2008. European destination management: challenges for product and brand management. (In Conrady, R. & Buck, M., eds. *Trends and issues in global tourism*. Berlin: Springer. p. 109-120).

Peng, B., Song, H. & Crouch, G.I. 2014. A meta-analysis of international tourism demand forecasting and implications for practice. *Tourism Management*, 45:181-193.

Peteraf, M.A. 1993. The cornerstones of competitive advantage: A resource-based view. *Strategic management journal*, 14(3):179-191.

Pew Research Centre. 2017. World's Muslim population more widespread than you might think. <http://www.pewresearch.org/fact-tank/2017/01/31/worlds-muslim-population-more-widespread-than-you-might-think/> Date of access 28 Feb. 2017.

Phakdisoth, L. & Kim, D. 2007. The determinants of inbound tourism in Laos. *ASEAN Economic Bulletin*, 24(2):225-237.

Pike, S. 2009. Destination brand positions of a competitive set of near-home destinations. *Tourism Management*, 30(6):857-866.

Pine, B.J. & Gilmore, J.H. 1999. The experience economy: the next competitive battleground in the global marketplace. *Museum News*, 78(2):45-48.

Podestà, F. 2002. Recent developments in quantitative comparative methodology: The case of pooled time series cross-section analysis. *DSS Papers Soc*, 3(2):5-44.

Porter, M.E. 1980. Industry structure and competitive strategy: keys to profitability. *Financial Analysts Journal*, 36(4):30-41.

Porter, M.E. 1985. Competitive advantage: creating and sustaining superior performance. New York, USA: Free Press.

Porter, M.E. 1986. Competition in global industries. Boston: Harvard Business Press.

Porter, M.E. 1990. The competitive advantage of nations. *Harvard Business Review*, 68(2):73-93.

Porter, M.E. & Millar, V.E. 1985. How information gives you competitive advantage. *Harvard Business Review*, 85(Jul-Aug):149-160.

Porter, M.E. & Rivkin, J.W. 2012. The looming challenge to US competitiveness. *Harvard Business Review*, 90(3):54-61.

Prahalad, C.K. & Hamel, G. 1990). The core competence of the corporation. *Harvard Business Review* (May-June):79-81.

Pratt, J. 2014. Supporting local economies: from Business Rates to Land Value Taxation. United Kingdom: Lulu Press Inc. <http://www.stewardship.ac/BusinessRates.pdf> Date of access: 12 Dec. 2016.

Pratt, S., McCabe, S., Cortes-Jimenez, I. & Blake, A. 2010. Measuring the effectiveness of destination marketing campaigns: Comparative analysis of conversion studies. *Journal of Travel Research*, 49(2):179-190.

Presbury, R. & Edwards, D. 2010. Managing sustainable festivals, meetings and events. (In Liburd, J.J. & Edwards, D., eds. Understanding the sustainable development of tourism. Oxford, UK: Goodfellow Publishers. p. 4-24).

Priego, F.J., Rosselló, J. & Santana-Gallego, M. 2015. The impact of climate change on domestic tourism: a gravity model for Spain. *Regional Environmental Change*, 15(2):291-300.

Pynnonen, S.P. 2007. A Short Introduction to the Generalized Method of Moments Estimation. <http://lipas.uwasa.fi/~sjp/Teaching/gmm/lectures/gmmSynopsis.html> Date of access: 8 Dec. 2016.

Quantitative Micro Software. 2015. Econometric Views, version 9. Irvine, California: USA.

Reuters. 2015. South African minister says Ebola, not visa rules, deterred Chinese tourists. <http://www.reuters.com/article/us-safrica-visa-idUSKBN0TL1TX20151202> Date of access: 7 Dec. 2016.

Ricardo, D. 1817. Principles of Political Economy and Taxation. (In McCulloch, J.R. ed. The Works of David Ricardo. London: John Murray, pp. 1-584).

Ritchie, J.B. & Crouch, G.I. 2003. The competitive destination: A sustainable tourism perspective. London, UK: CABI Publishers.

Ritchie, J.B., Molinar, C.M.A. & Frechtling, D.C. 2010. Impacts of the world recession and economic crisis on tourism: North America. *Journal of Travel Research*, 49(1):5-15.

Ritchie, J.R.B. & Crouch, G.I. 2003. A model of destination competitiveness. (In Ritchie, J.R.B. & Crouch, G.I., eds. The competitive destination: a sustainable tourism perspective. Oxon, UK: CABI Publishers. p. 60-78).

Rodrick, D. 2000. Development Strategies in the Next Century. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.473.2194&rep=rep1&type=pdf> Date of access: 8 Dec. 2016.

Rodrigue, J.P., Comtois, C. & Slack, B. 2013. The geography of transport systems. London, UK: Routledge.

Rogerson, C.M. 2007. Reviewing Africa in the global tourism economy. *Development Southern Africa*, 24(3):361-379.

Rogerson, C.M. & Kiambo, W. 2007. The growth and promotion of regional tourism in the developing world: the South African experience. *Development Southern Africa*, 24(3):505-521.

Rogerson, C.M. & Visser, G. 2011. African tourism geographies: existing paths and new directions. *Tijdschrift voor Economische en Sociale Geografie*, 102(3):251-259.

Romer, P. 1990. Endogenous Technological Change. *Journal of Political Economy*, 98(5): S71-102.

Roodman, D. 2009. How to do xtabond2: An introduction to difference and system GMM in Stata. *Stata Journal*, 9(1):86-136.

Rugman, A.M. & D'Cruz, J.R. 1993. The "double diamond" model of international competitiveness: The Canadian experience. *MIR: Management International Review*, 33(2-1):17-39.

Saayman, A. & Cortés-Jiménez, I. 2013. Modelling intercontinental tourism consumption in South Africa: a systems-of-equations approach. *South African Journal of Economics*, 81(4):538-560.

Saayman, A. & Saayman, M. 2008. Determinants of inbound tourism to South Africa. *Tourism Economics*, 14(1):81-96.

Saayman, A., Figini, P. & Cassella, S. 2016. The influence of formal trade agreements and informal economic cooperation on international tourism flows. *Tourism Economics*, 22(6):1274-1300.

Saayman, M. 2013. *Enroute with tourism*. Cape Town, South Africa: Juta.

Saayman, M. & Saayman, A. 2012. Shopping tourism or tourists shopping? A case study of South Africa's African tourism market. *Tourism Economics*, 18(6):1313-1329.

SADC. 2015a. Natural resources. <http://www.sadc.int/themes/natural-resources/> Date of access: 7 Dec. 2016.

SADC. 2015b. Infrastructure. <http://www.sadc.int/themes/infrastructure/> Date of access: 7 Dec. 2016.

SADC. 2015c. Tourism. <http://www.sadc.int/themes/infrastructure/tourism/> Date of access: 7 Dec. 2016.

SADC. 2015d. Poverty eradication and policy dialogue. <http://www.sadc.int/themes/poverty-eradication-policy-dialogue/> Date of access: 7 Dec. 2016.

Sahli, M. & Nowak, J.J. 2007. Does inbound tourism benefit developing countries? A trade theoretic approach. *Journal of Travel Research*, 45(4):426-434.

Samuelson, P.A. & Nordhaus, W.D. 2010. Economics application in Latin America. Mexico: McGraw-Hill.

Sandrey, R. 2013. An analysis of the SADC Free Trade Area. Stellenbosch: tralac. <http://www.tralac.org/files/2013/06/D13TB012013-Sandrey-Analysis-of-SADC-Free-Trade-Area-20130619-fin.pdf> Date of access: 10 Dec. 2016.

Sangsue, P. 2014. Destination Confusion. A photo elicitation study on brand confusion in tourism destination. (In McCabe, S., ed. *The Routledge Handbook of Tourism Marketing*. Abingdon, Oxon: Routledge. p. 239-248).

Santana-Gallego, M., Ledesma-Rodríguez, F. & Pérez-Rodríguez, J. 2011. Tourism and trade in small island regions: the case of the Canary Islands. *Tourism Economics*, 17(1):107-125.

Santana-Gallego, M., Ledesma-Rodríguez, F. & Pérez-Rodríguez, J. 2016a. The euro effect: Tourism creation, tourism diversion and tourism potential within the European Union. *European Union Politics*, 17(1):46-68.

Santana-Gallego, M., Ledesma-Rodríguez, F.J. & Pérez-Rodríguez, J.V. 2016b. International trade and tourism flows: An extension of the gravity model. *Economic Modelling*, 52(1):1026-1033.

Santana-Gallego, M., Ledesma-Rodríguez, F.J., Pérez-Rodríguez, J V., & Cortés-Jiménez, I. 2010. Does a common currency promote countries' growth via trade and tourism?. *The World Economy*, 33(12):1811-1835.

Scholtz, M. 2014. A critical assessment of the social impacts of tourism in selected South African Communities. Potchefstroom: NWU. (Thesis-PhD).

Schumpeter, J. A. 1912. The theory of economic development – An inquiry into profits, capital, credit, interest, and the business cycle. Translated from the German by Redvers Opie, Cambridge, MA.: Harvard University Press in 1934.

Schubert, S. F., Brida, J. G., & Risso, W. A. 2011. The impacts of international tourism demand on economic growth of small economies dependent on tourism. *Tourism Management*, 32(2):377-385.

Scott, B.R. & Lodge, G.C. 1985. US competitiveness in the world economy. *The International Executive*, 27(1):1-26.

Seddighi, H.R., Nuttall, M.W. & Theocharous, A.L. 2001. Does cultural background of tourists influence the destination choice? An empirical study with special reference to political instability. *Tourism Management*, 22(2):181-191.

Seetanah, B., Durbarry, R. & Ragodoo, J.F.N. 2010. Using the panel cointegration approach to analyse the determinants of tourism demand in South Africa. *Tourism Economics*, 16(3):715-729.

Seetanah, B., Sannasse, R. & Rojid, S. 2015. The impact of relative prices on tourism demand for Mauritius: An empirical analysis. *Development Southern Africa*, 32(3):363-376.

Seetaram, N. 2010. Use of dynamic panel cointegration approach to model international arrivals to Australia. *Journal of Travel Research*, 49(4):414-422.

Seetaram, N. 2012. Estimating demand elasticities for Australia's international outbound tourism. *Tourism Economics*, 18(5):999-1017.

Seetaram, N. & Dwyer, L. 2009. Immigration and tourism demand in Australia: a panel data analysis. *Anatolia*, 20(1):212-222.

Sequeira, T.N. & Campos, C. 2005. International tourism and economic growth: a panel data approach. *Nota di Lavoro, Fondazione Eni Enrico Mattei*, 14(1):1-26.

Sharpley, R. 2015. In defence of tourism. (In Singh, T.V., ed. Challenges in Tourism Research. Bristol, UK: Channel View Publications. p. 197-204).

- Sheppard, K. 2005. Generalized Methods of Moments (GMM).
<https://www.kevinshppard.com/images/5/55/Chapter6.pdf> Date of access: 8 Dec. 2016.
- Silva, J.S. & Tenreyro, S. 2006. The log of gravity. *The Review of Economics and Statistics*, 88(4):641-658.
- Smeral, E. 2003. A structural view of tourism growth. *Tourism Economics*, 9(1):77-93.
- Smeral, E. 2007. World tourism forecasting—keep it quick, simple and dirty. *Tourism Economics*, 13(2):309-317.
- Smeral, E. 2010. Impacts of the world recession and economic crisis on tourism: Forecasts and potential risks. *Journal of Travel Research*, 49(1):31-38.
- Smith, A. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Routledge; New York: E. P. Dutton.
- Snowdon, B. & Stonehouse, G. 2006. Competitiveness in a globalised world: Michael Porter on the microeconomic foundations of the competitiveness of nations, regions, and firms. *Journal of International Business Studies*, 37(2):163-175.
- Solleiro, J.L. & Castañón, R. 2005. Competitiveness and innovation systems: the challenges for Mexico's insertion in the global context. *Technovation*, 25(9):1059-1070.
- Song, H. & Li, G. 2008. Tourism demand modelling and forecasting—A review of recent research. *Tourism Management*, 29(2):203-220.
- Song, H., Dwyer, L., Li, G. & Cao, Z. 2012. Tourism economics research: A review and assessment. *Annals of Tourism Research*, 39(3):1653-1682.
- Song, H., Gartner, W.C. & Tasci, A.D. 2012. Visa restrictions and their adverse economic and marketing implications—Evidence from China. *Tourism Management*, 33(2):397-412.
- Song, H., Li, G., Witt, S.F. & Fei, B. 2010. Tourism demand modelling and forecasting: how should demand be measured?. *Tourism Economics*, 16(1):63-81.

Soteriades, M. 2012. Tourism destination marketing: approaches improving effectiveness and efficiency. *Journal of Hospitality and Tourism Technology*, 3(2):107-120.

South Africa. Department of Foreign Affairs. 2003. African Economic Community (AEC). <http://www.dfa.gov.za/foreign/Multilateral/africa/aec.htm> Date of access: 11 Feb. 2014.

South Africa. Department of Home Affairs. 2014. Passport holders who are exempt from visas for South Africa. <http://www.dha.gov.za/index.php/immigration-services/exempt-countries> Date of access: 5 Dec. 2016.

Southern African Development Community **see** SADC

Stata. 2013. Arellano–Bover/Blundell–Bond linear dynamic panel-data estimation. <http://www.stata.com/manuals13/xttdpdsys.pdf> Date of access: 8 Dec. 2016.

StataCorp. 2016. Stata Statistical Software: Release 14. College Station, TX: StataCorp LP.

Statistics South Africa **see** Stats SA

Stats SA. 2010. Tourism, 2010. <http://www.statssa.gov.za/publications/Report-03-51-02/Report-03-51-022010.pdf> Date of access: 9 Dec. 2016.

Stats SA. 2011. Tourism and migration. <http://www.statssa.gov.za/publications/P0351/P0351June2011.pdf> Date of access: 9 Dec. 2016.

Stiglitz, J.E. 2004. Globalization and growth in emerging markets. *Journal of Policy Modeling*, 26(4):465-484.

Stimson, J.A. 1985. Regression in space and time: A statistical essay. *American Journal of Political Science*, 29(4):914-947.

Taljaard, P.R., Alemu, Z.G. & van Schalkwyk, H.D. 2004. The demand for meat in South Africa: an almost ideal estimation. *Agrekon*, 43(4):430-443.

Tarssanen, S. & Kylänen, M. 2005. A theoretical model for producing experiences: a touristic perspective. *Articles on Experiences*, 2(1):130-149.

Tasci, A.D.A. 2011. Destination branding and positioning. (In Wang, Y. & Pizam, A., eds. Destination marketing and management: theories and applications. Wallingford, UK: CABI. p. 113-129).

Taylor, J.B. & Weerapana, A. 2010. Principles of economics: global financial crisis edition. 6th ed. Mason, OH: Cengage Learning.

Thurow, L.C. 1994. Microchips, not potato chips. *Foreign Affairs*, 73(4):189-192.

TII. 2011. Prospects for the emerging travel markets 2012. <http://www.tourism-intelligence.com/pdf/NL%20Nov%202011%20%2811%29.pdf> Date of access: 8 Dec. 2016.

Torres-Reyna, O. 2007. Panel data analysis fixed and random effects using Stata (v. 4.2). Data & Statistical Services, Princeton University.

<https://pdfs.semanticscholar.org/f70f/9754bc51b1eb2e74dc7dc4e47549910730ed.pdf> Date of access: 10 Dec. 2016. [PowerPoint presentation].

Torres, R. & Momsen, J.H. 2004. Challenges and potential for linking tourism and agriculture to achieve pro-poor tourism objectives. *Progress in Development Studies*, 4(4):294-318.

Tourism Intelligence International **see** TII

Trade Out Of Poverty. 2016. How Can Africa Deliver on its Promise?

<http://tradeoutofpoverty.org/how-can-africa-deliver-on-its-promise/> Date of access: 7 Dec. 2016.

Tucker, I.B. 2011. Economics for today's world. 7th ed. Australia: South-Western Cengage Learning.

Turvill, W. 2013. The true size of Africa. *The Daily Mail*, 5 Oct.

<http://www.dailymail.co.uk/news/article-2445615/True-size-Africa-continent-big-China-India-US-Europe-together.html> Date of access: 8 Dec. 2016.

UN. 2013. The Millennium Development Goals Report 2013.

<http://www.un.org/millenniumgoals/pdf/report-2013/mdg-report-2013-english.pdf> Date of access: 8 Dec. 2016.

UNCTAD. 2013. Economic Development in Africa Report 2013: Intra-African Trade: Unlocking private sector dynamism.
http://unctad.org/en/PublicationsLibrary/aldcafrica2013_en.pdf Date of access: 10 Dec. 2016.

UNCTAD. 2014a. Economic development in Africa. Report 2014. Catalysing investment for transformative growth in Africa.
http://unctad.org/en/PublicationsLibrary/aldcafrica2014_en.pdf Date of access: 7 Dec. 2016.

UNCTAD. 2014b. The least developed countries report 2014.
http://unctad.org/en/PublicationsLibrary/ldc2014_en.pdf Date of access: 7 Dec. 2016.

UNCTAD. 2016. Key pillars Africa's regional integration.
<http://www.uneca.org/oria/pages/key-pillars-africa's-regional-integration> Date of access: 9 Dec. 2016.

UNCTAD. 2017. Economic development in Africa: Tourism for transformative and inclusive growth. http://unctad.org/en/PublicationsLibrary/aldcafrica2017_en.pdf Date of access: 8 Aug. 2017.

UNDESA. 2014a. Least developed countries criteria.
http://www.un.org/en/development/desa/policy/cdp/ldc/ldc_criteria.shtml#criteria Date of access: 8 Dec. 2016.

UNDESA. 2014b. What are least developed countries (LDCs)?
http://www.un.org/en/development/desa/policy/cdp/ldc_info.shtml Date of access: 7 Dec. 2016.

UNDESA. 2015. World population prospects.
https://esa.un.org/unpd/wpp/Publications/Files/Key_Findings_WPP_2015.pdf Date of access: 7 Dec. 2016.

UNDPI. 2008. Achieving the millennium development goals in Africa.
<http://www.mdgafrica.org/pdf/MDG%20Africa%20Steering%20Group%20Recommendations%20-%20English%20-%20HighRes.pdf> Date of access: 8 Dec. 2016.

UNECA. 2011. Governing development in Africa - the role of the state in economic transformation. Addis Ababa, Ethiopia: UNECA.

http://www.uneca.org/sites/default/files/publications/era2011_eng-fin.pdf Date of access: 05 Dec. 2016.

UNECA. 2015a. Industrializing through trade.

<http://www.un.org/en/africa/osaa/pdf/pubs/2015era-uneca.pdf> Date of access: 7 Dec. 2016.

UNECA. 2015b. History of Africa's Regional Integration Efforts.

<http://www.uneca.org/oria/pages/history-africa's-regional-integration-efforts> Date of access: 7 Dec. 2016.

UNESCAP. 2013. Gravity model report. <http://www.unescap.org/sites/default/files/full-report-gravity-model-2013.pdf> Date of access: 7 Dec. 2016.

United Nations Comtrade Database **see** UNCD

United Nations Conference on Trade and Development **see** UNCTAD

United Nations Department of Economic and Social Affairs **see** UNDESA

United Nations Department of Public Information **see** UNDPI

United Nations Economic and Social Commission for Asia and the Pacific **see** UNESCAP

United Nations Economic Commission for Africa **see** UNECA

United Nations **see** UN

United Nations Statistics **see** UNSTATS

United Nations World Tourism Organization **see** UNWTO

UNSTATS. 2008. Tourism Satellite Account: Recommended Methodological Framework 2008. http://unstats.un.org/unsd/publication/Seriesf/SeriesF_80rev1e.pdf Date of access: 7 Dec. 2016.

UNWTO. 2010. Study on Chinese Outbound Travel to Africa. Madrid, Spain: UNWTO.

http://pub.unwto.org/WebRoot/Store/Shops/Infoshop/4D13/2C30/152E/1FF1/08C9/C0A8/0164/8ED0/110204_chinese_outbound_to_africa_excerpt.pdf Date of access: 05 Dec. 2016.

UNWTO. 2013a. Tourism highlights, 2013 edition. Madrid, Spain: UNWTO. <http://www.e-unwto.org/doi/pdf/10.18111/9789284415427> Date of access: 05 Dec. 2016.

UNWTO. 2013b. World's top tourism spenders. http://dtxqtq4w60xqpw.cloudfront.net/sites/all/files/pdf/tsen_0.pdf Date of access: 8 Dec. 2016.

UNWTO. 2014. Glossary of Tourism terms. <http://cf.cdn.unwto.org/sites/all/files/Glossary-of-terms.pdf> Date of access: 7 Dec. 2016.

UNWTO. 2015. Tourism Driving Trade, Fostering Development and Connecting People. http://cf.cdn.unwto.org/sites/all/files/pdf/tourism_driving_trade_fostering_development_connecting_people.pdf Date of access: 9 Dec. 2016.

UNWTO. 2016. Supporting Tourism for Development in Least Developed Countries. http://www.intracen.org/uploadedFiles/intracenorg/Content/Exporters/Sectors/Service_exports/Trade_in_services/Supporting_Tourism_Development_v3.pdf Date of access: 9 Dec. 2016.

US Department of State. U.S. 2016. Relations with Liberia. <http://www.state.gov/r/pa/ei/bgn/6618.htm> Date of access: 7 Dec. 2016

Vanhove, N. 2012. The Economics of Tourism Destinations. 2nd ed. Burlington, MA: Elsevier Butterworth-Heinemann.

Vernon, R. 1966. International investment and international trade in the product cycle. *Quarterly journal of economics*, 80(2):190-207.

Volgger, M. & Pechlaner, H. 2014. Requirements for destination management organizations in destination governance: Understanding DMO success. *Tourism Management*, 41(April 2014):64-75.

WEF. 2009. The Travel & Tourism Competitiveness Index 2009: Measuring Sectoral Drivers in a Downturn. Geneva, Switzerland: WEF. http://www3.weforum.org/docs/WEF_GCR_TravelTourism_Report_2009.pdf Date of access: 12 Dec. 2016.

WEF. 2011. African Competitiveness Report, 2011.

http://www3.weforum.org/docs/WEF_GCR_Africa_Report_2011.pdf Date of access: 7 Dec. 2016.

WEF. 2012. Global competitiveness report, 2012-2013.

http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2012-13.pdf Date of access: 04 Dec. 2016.

WEF. 2013a. The travel and tourism competitiveness report 2013.

http://www3.weforum.org/docs/WEF_TT_Competitiveness_Report_2013.pdf Date of access: 8 Dec. 2016.

WEF. 2013b. The African competitiveness report 2013.

http://www3.weforum.org/docs/WEF_Africa_Competitiveness_Report_2013.pdf Date of access: 8 Dec. 2016.

WEF. 2014. The Global Competitiveness Report 2014–2015.

http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf Date of access: 6 Dec. 2016.

WEF. 2015. The African competitiveness Report 2015.

http://www3.weforum.org/docs/WEF_ACR_2015/Africa_Competitiveness_Report_2015.pdf
Date of access: 7 Dec. 2016.

WEF. 2016. Africa needs to trade with itself – here's how.

<https://www.weforum.org/agenda/2016/04/africa-needs-to-trade-with-itself/> Date of access: 7 Dec. 2016.

Weigert, M. 2015. Tourism in West Africa: an economic, social and cultural opportunity.

<http://www.afdb.org/en/blogs/measuring-the-pulse-of-economic-transformation-in-west-africa/post/tourism-in-west-africa-an-economic-social-and-cultural-opportunity-14479/> Date of access: 7 Dec. 2016.

Wernerfelt, B., 1984. A resource-based view of the firm. *Strategic management journal*, 5(2), pp.171-180.

WESGRO. 2013. Regional tourism report: Africa and the Middle East. Cape Town, South Africa: WESGRO.

Westerlund, J. & Wilhelmsson, F. 2011. Estimating the gravity model without gravity using panel data. *Applied Economics*, 43(6):641-649.

Western Cape Tourism, Trade and Investment Promotion Agency **see** WESGRO

WHO. 2015. World malaria report 2015.

http://apps.who.int/iris/bitstream/10665/200018/1/9789241565158_eng.pdf?ua=1 Date of access: 7 Dec. 2016.

Wilde, S.J. & Cox, C. 2008. Linking destination competitiveness and destination development: findings from a mature Australian tourism destination. (*In* Travel and Tourism Research Association., *ed.* Competition in tourism: business and destination perspectives: European Chapter Conference, Helsinki, Finland. TTRA conference proceedings. p. 467-478). http://epubs.scu.edu.au/cgi/viewcontent.cgi?article=1009&context=comm_pubs Date of access: 8 Dec. 2016.

Williams, R. 2015. Panel data: fixed effects vs random effects models. University of Notre Dame. <https://www3.nd.edu/~rwilliam/stats3/Panel04-FixedVsRandom.pdf> Date of access: 8 Dec. 2016.

Witt, S.F. & Witt, C.A. 1995. Forecasting tourism demand: A review of empirical research. *International Journal of Forecasting*, 11(3):447-475.

Wooldridge, J.M. 2009. Introductory econometrics: a modern approach. 4th ed. Mason, OH: South-Western Cengage Learning.

Worger, W.H., Clark, N.L. & Alpers, E.A. 2010a. Africa and the West: A Documentary History. Volume 1: Africa and the West: From the slave trade to conquest, 1441-1905. Oxford, UK: Oxford University Press.

Worger, W.H., Clark, N.L. & Alpers, E.A. 2010b. Africa and the West: A Documentary History. Volume 2: From Colonialism to Independence, 1875 to the Present. 2nd ed. Oxford, UK: Oxford University Press.

World Bank Development Indicators **see** WBDI

World Bank. 1991. Treaty establishing the African economic community. Washington, DC: World Bank.
http://www4.worldbank.org/afr/ssatp/Resources/HTML/legal_review/Annexes/Annexes%20III/Annex%20III-03.pdf Date of access: 05 Dec. 2016.

World Bank. 2006. Africa Region - Namibia, Botswana, South Africa and Zambia Open Africa North South Tourism Corridor Project (English).
<http://documents.worldbank.org/curated/en/377271468003036499/Africa-Region-Namibia-Botswana-South-Africa-and-Zambia-Open-Africa-North-South-Tourism-Corridor-Project> Date of access: 7 Dec. 2016.

World Bank. 2012a. De-Fragmenting Africa Deepening Regional Trade Integration in Goods and Services.
http://siteresources.worldbank.org/INTAFRICA/Resources/Defrag_Afr_English_web_version.pdf Date of access: 7 Dec. 2016.

World Bank. 2012b. Let Africa Trade With Africa.
<http://www.worldbank.org/en/news/video/2012/02/01/let-africa-trade-with-africa> Date of access: 7 Dec. 2016.

World Bank. 2013a. Global economic prospects: assuring growth over the medium term.
http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1322593305595/8287139-1358278153255/GEP13AFinalFullReport_.pdf Date of access: 8 Dec. 2016.

World Bank. 2013b. World Development Indicators 2013. Washington, DC: World Bank.
<http://databank.worldbank.org/data/download/WDI-2013-ebook.pdf> Date of access: 05 Dec. 2016.

World Bank. 2013c. Tourism in Africa: Harnessing Tourism for Growth and Improved Livelihoods.
<http://documents.worldbank.org/curated/en/723511468102894381/pdf/814680WP0P13260Box0379837B00PUBLIC0.pdf> Date of access: 7 Dec. 2016.

World Bank. 2015. Deepening African Integration: Intra-Africa Trade for Development and Poverty Reduction. <http://www.worldbank.org/en/news/speech/2015/12/14/deepening->

african-integration-intra-africa-trade-for-development-and-poverty-reduction Date of access: 9 Dec. 2016.

World Bank. 2016. Poverty in a rising Africa.

<https://openknowledge.worldbank.org/bitstream/handle/10986/22575/9781464807237.pdf?sequence=10&isAllowed=y> Date of access: 7 Dec. 2016.

World Economic Forum **see** WEF

World Health Organization **see** WHO

World Tourism Organization **see** UNWTO

World Tourism Organization **see** WTO

World Travel and Tourism Council **see** WTTC

Worldatlas. 2013. Africa. <http://www.worldatlas.com/webimage/countrys/af.htm> Date of access: 13 Feb. 2013.

WTO. 2002. Compendium of tourism statistics. Madrid, Spain: WTO <http://www.e-unwto.org/doi/pdf/10.18111/9789284405596> Date of access: 12 Dec. 2016.

WTTC. 2016a. Travel & Tourism Economic Impact 2016: Africa. <https://www.wttc.org/-/media/files/reports/economic-impact-research/regions-2016/africa2016.pdf> Date of access: 05 Dec. 2016.

WTTC. 2016b. Travel & Tourism Economic Impact 2016: North Africa. <https://www.wttc.org/-/media/files/reports/economic-impact-research/regions-2016/northafrica2016.pdf> Date of access: 05 Dec. 2016.

WTTC. 2016c. Travel & Tourism Economic Impact 2016: Sub-Saharan Africa <https://www.wttc.org/-/media/files/reports/economic-impact-research/regions-2016/subsaharanafrica2016.pdf> Date of access: 05 Dec. 2016.

Wu, D.C., Li, G. & Song, H. 2011. Analysing tourist consumption: a dynamic system-of-equations approach. *Journal of Travel Research*, 50(1):46-56.

Wu, D.C., Li, G. & Song, H. 2012. Economic analysis of tourism consumption dynamics: A time-varying parameter demand system approach. *Annals of Tourism Research*, 39(2):667-685.

Wu, W.W., Lan, L.W. & Lee, Y.T. 2012. Critiquing the World Economic Forum's concept of destination competitiveness: A further analysis. *Tourism Management Perspectives*, 4(2012):198-206.

XE.com. 2016. XE Currency Converter. <http://www.xe.com/currencyconverter/> Date of access: 8 Sept. 2015.

Xepapadeas, A. & de Zeeuw, A. 1999. Environmental policy and competitiveness: the Porter hypothesis and the composition of capital. *Journal of Environmental Economics and Management*, 37(2):165-182.

Xiao, H. & Smith, S.L.J. 2006. The making of tourism research: insights from a social sciences journal. *Annals of Tourism Research*, 33(2):490-507.

Yang, X. & Zhang, D. 2000. International Trade and Income Distribution. Papers 18, Chicago - Graduate School of Business.

Yang, X. 1994. Endogenous vs. exogenous comparative advantage and economies of specialization vs. economies of scale. *Journal of Economics*, 60(1):29-54.

Zanakis, S.H. & Becerra-Fernandez, I. 2005. Competitiveness of nations: A knowledge discovery examination. *European Journal of Operational Research*, 166(1):185-211.

Zhang, J. & Jensen, C. 2007. Comparative advantage: explaining tourism flows. *Annals of Tourism Research*, 34(1):223-243.

Zhang, W. 2008. International Trade Theory. Capital, Knowledge, Economic Structure, Money, and Prices over Time. Berlin, Heidelberg: Springer-Verlag Berlin Heidelberg.

Zhou, T., Bonham, C. & Gangnes, B. 2007. Modeling the supply and demand for tourism: a fully identified VECM approach.

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.820.2739&rep=rep1&type=pdf>
Date of access: 8 Dec. 2016.

Zsohar, P. 2010. Short Introduction to the Generalized Method of Moments.

http://www.ksh.hu/statszemle_archive/2012/2012_K16/2012_K16_150.pdf Date of access: 8 Dec. 2016.

Appendixes

CERTIFICATE OF PROOFREADING AND LANGUAGE EDITING

This certificate serves to confirm that Elmarie Snoer has proof read and edited the thesis for the degree *Doctor Philosophiae* in Tourism Management at the Potchefstroom Campus of the North-West University.

Author: A H Viljoen

***A critical assessment of Africa's growth potential
as a global competitive tourism role-player***

The language editing focused on, and included:

- Grammar;
- Spelling;
- Style; and
- Translation of the Abstract.

Any concerns or questions can be forwarded to

elmarie.bester@gmail.com

Date of service completion: 17 October 2017



CM SNOER
(Elmarie Snoer)

Table A1: Summary of descriptive results for variables

	LARRIVE	LAGDP	LRELCPI	LTB	LSAFETY	LINTERNET	LURBAN	LDEATH	LMARINE	LPROTECT
TOTAL AFRICA										
Mean	12.14217	27.74514	0.281275	5.240935	4.042223	3.039882	3.490967	2.422095	1.792717	2.048453
Median	12.01630	27.75925	0.213997	5.491000	4.117022	3.193263	3.633602	2.489932	1.955764	2.328324
Maximum	16.43682	27.80471	2.441900	7.509883	4.487828	6.194405	4.276999	3.160738	3.584756	3.738190
Minimum	7.234177	27.65847	-0.039374	2.890372	3.244909	-0.989873	2.136743	1.656131	-0.722868	-0.722868
St. Dev.	1.836767	0.051982	0.299293	1.120256	0.257356	1.677697	0.529365	0.390880	1.198788	1.086074
NORTHERN AFRICA										
Mean	14.59591	27.74514	0.138240	3.837616	4.091316	4.492541	4.038473	1.787418	1.064313	1.067791
Median	15.12945	27.75925	0.092104	3.881511	4.116100	4.737724	4.081980	1.781686	0.951556	0.946919
Maximum	16.43682	27.80471	0.605370	4.727388	4.214573	6.194405	4.276999	1.928473	1.830379	1.841870
Minimum	11.74891	27.65847	-0.009373	2.890372	3.903644	1.865806	3.757542	1.656131	0.240352	0.259155
St. Dev.	1.347072	0.052539	0.178002	0.731715	0.092650	1.079576	0.179689	0.093502	0.745937	0.733808
EASTERN AFRICA										
Mean	12.18106	27.74514	0.342567	4.931866	4.069714	3.227608	3.084156	2.340865	1.729163	2.541207
Median	12.23831	27.75925	0.337964	5.418318	4.004491	3.518956	3.084831	2.393701	2.328324	2.464404
Maximum	14.24664	27.80471	0.966688	6.011267	4.487828	6.016076	3.974716	2.744318	3.291304	3.738190
Minimum	9.137770	27.65847	-0.039374	3.091042	3.751176	-0.989873	2.136743	1.898819	-0.333097	1.500058
St. Dev.	1.259648	0.052252	0.254048	1.061959	0.230296	1.919294	0.568795	0.267589	1.330371	0.781470
SOUTHERN AFRICA										
Mean	11.92603	4.942975	0.273989	6.342371	4.222307	2.808060	3.385116	2.570943	8.940238	9.290020
Median	11.96353	5.292033	0.245691	6.327528	4.215861	2.956534	3.398152	2.667151	10.32129	10.67812
Maximum	14.61422	6.731930	0.754774	7.509883	4.381295	5.195784	4.119785	2.931034	15.01757	15.82744
Minimum	9.061608	1.403438	0.000000	5.389072	3.788487	0.470203	2.687766	2.001210	0.485358	0.485358
St. Dev.	1.460848	1.656234	0.206486	0.580183	0.096952	1.253849	0.418607	0.280251	6.015675	6.163290
WESTERN AFRICA										
Mean	11.09150	5.517388	0.230104	5.223413	3.946957	2.280541	3.595404	2.632874	9.699658	10.04064
Median	10.43561	5.781904	0.104233	5.173285	3.955819	2.184472	3.721521	2.616062	7.069318	7.069318
Maximum	14.41461	7.546820	0.866464	6.525030	4.303581	5.480639	4.036998	3.160738	23.27300	23.80738
Minimum	9.444622	2.003135	-0.006998	4.234107	3.310975	-0.106457	2.790871	2.286557	1.270688	1.532124
St. Dev.	1.516548	1.759857	0.260119	0.667777	0.225962	1.523734	0.407586	0.249543	7.820785	7.883462
CENTRAL AFRICA										
Mean	10.96315	5.073989	0.428835	5.659516	3.711225	2.327666	3.747830	2.808870	21.94929	22.06282
Median	11.77557	5.039645	0.219602	5.629378	3.666449	2.369574	3.646522	2.829141	17.74432	17.74432
Maximum	12.76068	6.737424	2.441900	6.519147	4.180882	4.617637	4.066956	2.967898	36.04456	36.04456
Minimum	7.234177	3.152732	-0.000184	4.990433	3.244909	-0.241518	3.560023	2.474014	12.05923	12.39982
St. Dev.	1.666666	1.285800	0.554474	0.543361	0.352592	1.458880	0.180315	0.126516	10.40830	10.29739

Table B1: Unit root error tests of the residuals

	Static model	Dynamic model
Equation	Prob.	Prob.
Asia	<0.0001	0.0001
Europe	<0.0001	0.0001
North America	0.0003	0.0002
Oceania	0.0002	0.0007
South America	0.0001	0.0001

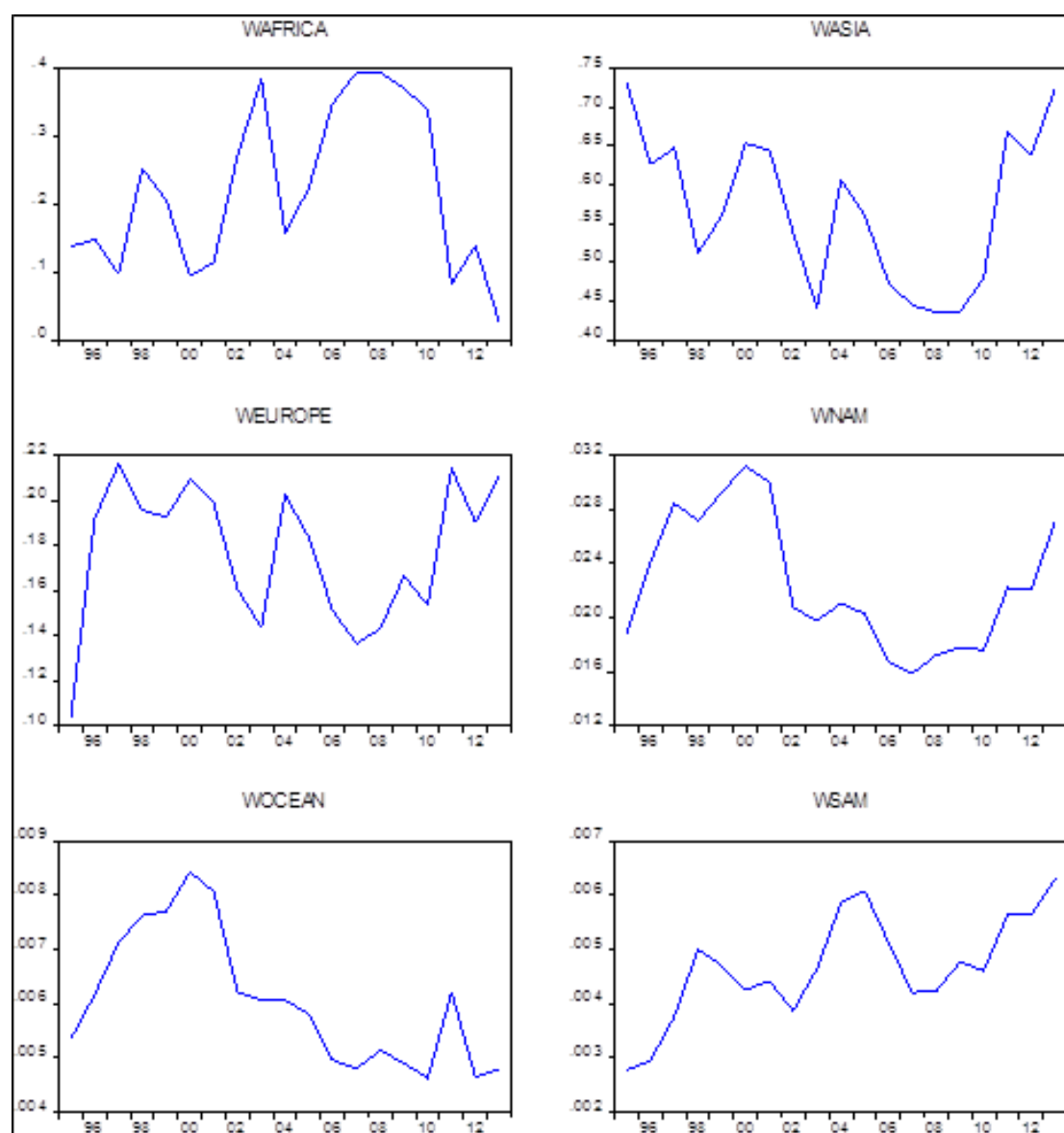


Figure B1: Visual graphs per continent

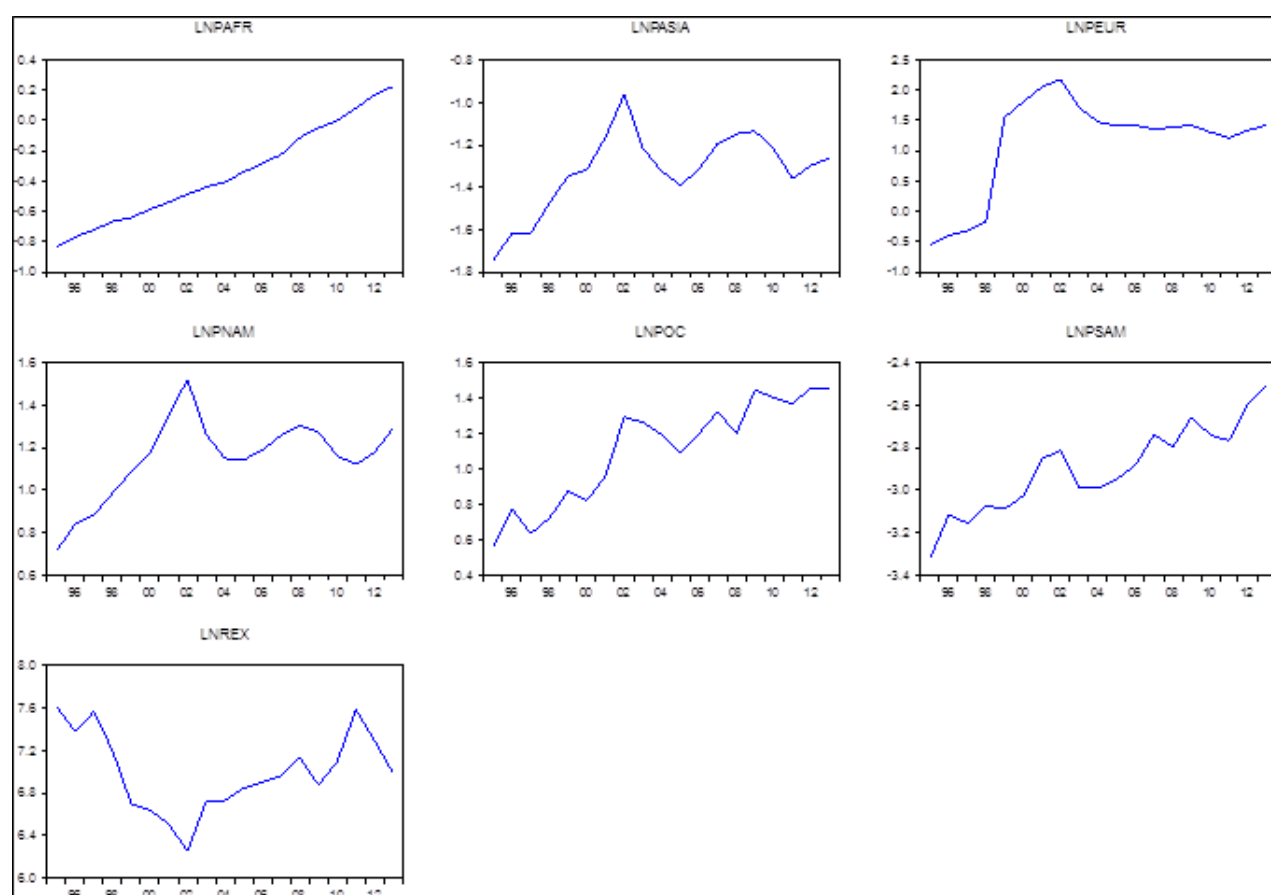


Figure B2: Visual graphs