



**THE RELATIONSHIP BETWEEN EVENT SPEND, SOCIAL
COHESION AND ECONOMIC DEVELOPMENT**

By

Musa Gumede

Student No: 21751941

**A dissertation submitted in fulfilment of the requirements of the
Master of Management Sciences: Hospitality and Tourism
Management**

**In the Faculty of Management Sciences, Hospitality and Tourism,
Durban University of Technology.
Durban, South Africa**

APPROVED FOR FINAL SUBMISSION

APPROVED FOR FINAL SUBMISSION

Name Supervisor/s DATE

DECLARATION

**The Registrar (Academic)
Durban University of Technology**

Dear Madam

I, Musa Gumede, Student No **21751941**

Hereby declare that the dissertation entitled:

**The relationship between Event Spend, Social Cohesion and
Economic development**

Is the result of my own investigation and research and that it has not been submitted in part or in full, for any other degree or any other institution of higher learning. Subsequently, other sources are acknowledged and giving explicit references.



Signed:.....

Date:....10 May 2017.....

The relationship between Event Spend, Social Cohesion and Economic Development

Musa Gumede

A research thesis submitted to the Faculty of Management Sciences,
Durban University of Technology, Durban, in partial fulfilment of the requirements for
the degree of **Master of Management Sciences : Hospitality and Tourism
Management**

Durban, May 2017

Abstract

The study addressed four questions using secondary annual time series data: (1) How is event spend related to economic development? (2) How are the physical attributes of the region (natural capital) related to economic development? (3) How is social cohesion related to economic development? (4) How does human capital influence economic development? The study period starts in 1994 and ends in 2016, accordingly 100 data points were pulled from the time series. Error Correction Model and Ordinary Least Squares were used as analytical tools to test the regression model developed for the study.

Economic development is the dependent variable and is represented by tourism employment data sourced from Statistics South Africa. The independent variables are event spend represented by expenditure figures for culture, sports and recreation published by Statistics SA; human capital was measured using gross educational ratio for secondary education accessed from the World Bank database; natural capital was measured using the gross domestic product attained from Statistics South Africa; and social cohesion was measured using social expenditure data acquired from the South African Reserve Bank.

The theoretical framework that underpins the study is the geography political theory as espoused by different authors including Collier (2007) and Kollosov (2001). On the basis of this theoretical framework the study seeks to look at the effect of event spend, natural capital, human capital and social cohesion on economic development.

The findings of the study show that there is no relationship between economic development, event spend and human capital. However a relationship was established between natural capital and social cohesion. The results of the study will inform policymakers in the allocation of budgets towards major events. It will also contribute to the equitable distribution of resources to promote social cohesion in communities.

Declaration

I, Musa Gumede, declare that this research is my own, unaided work, except as indicated in the acknowledgements, the text and the references. It is submitted in partial fulfilment for the requirement for the degree of Master of Tourism in the Faculty of Management Sciences at the Durban University of Technology, Durban.

It has not been submitted before, either whole or in part, for any degree or examination at this or any other university.

Musa Gumede

Signed atDurban.....

On the10th day ofMay.....
2017

Dedication

To my family, work colleagues and EThekwini Municipality for support and encouragement.

Acknowledgements

I would like to express my deepest appreciation to the following people for their advice, guidance, patience and ongoing support: my supervisor, Prof. Pumela Msweli for her wisdom, guidance and relentless push; my friend and colleague, Mr. Vusi Mazibuko for his support and advice; my secretary and colleague, Bonnie Nzuzwa for always being helpful and considerate even during stressful periods; my mother, Mama Babongile Gumede for showing love and guidance and support during hard times; my family, Beverley Motlhabani (partner), Sibonelo and Siyabonga for their constant support. I have appreciated it dearly.

To all the Academic Achievers group, Dr. Zodwa Ngobese, Dr. Fikile Ndlovu, Dr. Victoria Mubaiwa and Mr. Vusi Mazibuko thank you for the push and comradery shown throughout this journey.

Contents

THE RELATIONSHIP BETWEEN EVENT SPEND, SOCIAL COHESION AND ECONOMIC DEVELOPMENT	1
The relationship between Event Spend, Social Cohesion and Economic development.....	2
Abstract.....	4
Declaration.....	5
Dedication.....	6
Acknowledgements.....	7
Chapter One: Introduction.....	11
1.1. Study Overview	11
1.2. Problem Statement.....	12
1.3. Purpose and significance of the study	13
1.4. Research design	15
1.5. Delimitations.....	15
1.6. Operational definition of concepts and variables.....	15
1.7. Concluding Summary	16
Chapter Two: Literature Review and Conceptual Framework.....	17
2.1 Introduction and Background	17
2.2 Theoretical Framework.....	20
2.3 Conceptual Model.....	22
2.3.1 Economic development	23
H3: Human capital influences economic development.....	25
2.3.2. Relationship between event spend and economic development	25
2.3.3. Relationship between natural capital and economic development.....	30
2.3.4. Relationship between human capital and economic development	31
2.3.5. Relationship between social cohesion and economic development.....	32
2.4 Measurement issues.....	35
2.5 Definition of events.....	37

2.5.1	Definition of terminology used: Mega-events, Special events, Hallmark event, Community events	37
2.5.2	Mega-Events	40
2.5.3	Hallmark Event	42
2.5.4	Community Events	42
2.6	Conclusion	43
Chapter Three: Research Methodology		45
3.0.	Introduction	45
3.1.	Research design	45
3.2.	Ordinary Least Squares (OLS) and Time Series Research approach	47
3.3.	Data description	49
3.4.	Data Source	49
3.5.	Variables and operationalisation	50
3.6.	Model Specification Using an Error Correction Model (ECM)	52
3.7.	Ethical Issues	53
3.8.	Validity and reliability issues	53
3.9.	Concluding remarks	54
Chapter 4: Findings		55
1.4	Introduction	55
4.2	Data description and descriptive statistics of study variables	55
4.3.	Unit Root test	57
4.4.	Testing Hypothesis 1: Event spend influences economic development	58
4.5	Testing Hypothesis 2: Natural capital influences economic development	59
4.6	Testing Hypothesis 3: Human capital influences economic development	59
4.7	Testing Hypothesis 4: Social cohesion influences economic development	60
4.8	The simultaneous effect of all variables on economic development	60
4.9	Conclusion	62
Chapter 5. Discussion and Conclusion		63

5.1. Introduction	63
5.2. Discussion of findings.....	65
5.2.1. Hypothesis 1: Event spend influences economic development	66
5.2.2. Hypothesis 2: Natural capital influences economic development.....	67
5.2.3. Hypothesis 3: Human capital influences economic development.....	68
5.2.4. Hypothesis 4: Social cohesion influences economic development	69
1.8. 5.3. Implications for future research.....	70
5.4. Contribution to Knowledge.....	70
5.5. Implications of the Findings to Practice.....	71
5.6. Study Limitations and Avenues for Further Research	72
References	74

Table of Tables

Table 1: Bernard's integrated conceptual scheme of social cohesion (1999)	34
Table 2: Categories of sporting events	38
Table 3: Major events held in south africa since 1994	43
Table 4: Fundamental differences between qualitative and quantitative research strategies.....	46
Table 5: Variables, measures and Data Source for the current study	50
Table 6: Descriptive statistics of the variables of the study	56
Table 7: Unit Root test	58
Table 8: Testing Hypothesis 1	58
Table 9: Testing hypothesis 2.....	59
Table 10: Testing hypothesis 3.....	59
Table 11: Testing Hypothesis 4	60
Table 12: Testing the simultaneous effect of all independent variables on economic development..	60

Table of Figures

Figure 1: Conceptual Model of the Current study	35
---	----

Chapter One: Introduction

“Sport has the power to change the world. It has the power to inspire. It has the power to unite people in a way that little else does. It speaks to youth in a language they understand. Sport can create hope where once there was only despair.

“It is more powerful than government in breaking down racial barriers. It laughs in the face of all kinds of discrimination.” – Nelson Mandela, May 25, 2000

1.1. Study Overview

The study focuses on the tourism sector including arts, culture, sports and recreation and looks at how hosting of major events by cities contributes to economic development. It seeks to test the effect of five independent variables: event spend, human capital, natural capital (physical attributes of the area) and social cohesion on a dependent variable - economic development. Major sporting and non-sporting events are held across the globe in cities and countries outbidding each other in competition for hosting these coveted global events.

Countries and cities hosting major events perceive events as catalysts for economic development; they are also seen as enablers for infrastructure development. The tourism sector benefits as a result of hosting these events as large numbers of visitors descend on a city either as spectators, fans or investors following the events and this benefits the local economy.

The study focuses on major, mega and special events that have taken place in South Africa since 1995 up to 2015. The different categorisation of events is defined in the study. Events of a smaller size including community events are excluded from the purview of the study. The study seeks to determine if there is a relationship between event spend, human capital, natural capital, social cohesion and economic development. The study will use a political geography theory as a lens through which to view the research.

Literature is undecided on whether major events contribute to economic development and on whether event spend benefits communities and catalyses

economic development. Various authors agree that some benefits accrue to a hosting city or country but these benefits may be transient and temporary. Authors also indicate that there are two types of benefits for hosting countries and these can be categorised as tangible and intangible benefits. The study endeavours to identify and pursue these benefits and their impact on the variables being measured especially whether there is any associated economic development.

Tangible benefits are associated with infrastructure development and intangible benefits are generally associated with public pride from the citizens, patriotism and contribute to social cohesion.

1.2. Problem Statement

The study aims to ascertain the socioeconomic impact on the population of the cities, of investing in the hosting of major events and also to determine the economic growth as a result of hosting these events. The general public and the media views the financial spend on major events as an unwarranted and wasteful expenditure that does not benefit the economy of the cities. They also see this expenditure as not in line with the service delivery mandate of the cities. Kolo (2011: 24), says that ‘contrary to the views of supporters, critics harped on the World Cup as a misplaced priority, given South Africa’s complex and systemic social, economic and infrastructural challenges’.

This narrative continues today whenever there is public spend on major events, a public discourse about whether the spend is justifiable ensues. Several writers have identified a number of advantages to hosting major events including: Collier (2007:1106), Yates (2010:1). These authors including Bohlmann and van Heerden (2005:12) have been guarded in their confirmation of these benefits highlighting the short-term nature of these benefits and also indicating the high cost of creating these jobs by pointing at short-term employment opportunities during the development stage and the high prohibitive rights costs demanded by organisers which alienate local businesses in favour of established global event sponsors.

According to Pettinger (2016) hosting major events raises the profile of the city/country, improves long-term investment, jobs and investment, enthusiasm and excitement and promotes civil virtues (patriotism, social cohesion) and short-term

economic benefits. He also identifies disadvantages as the cost of building stadia, short-term use of the facility, potential for negative publicity, cost of security and higher taxes to pay costs post-event.

Bohlmann and van Heerden (2005:12) posit that tourism and advertising revenues generated by ...mega events have become a major boost to the economies of hosting nations. The authors further assert that "*it can be concluded with relative certainty that the impact of hosting a mega-event ...is beneficial towards achieving higher economic growth and development*". Accordingly, this study seeks to examine the link between event spend, natural capital, human capital, social cohesion and economic development.

The most appropriate theoretical framework to examine the interrelatedness or relationship of the variables is the political geography theoretical framework. Kolossov (2001:179) and Herb (2007) explain political geography as the interaction between political activity of people, geographical space, which includes physical, economic, social, cultural, and political spaces. Priska (2016) in the study on protests in Europe has also highlighted the relationship between space and politics in the social upheavals and protests. Hirsch (2016) in studying the Mekong community basis his work on political geography theory as he looks at the struggles of people of Mekong and how their struggles are addressed by looking at power relations in this community. On the basis of the same theoretical framework the study seeks to look at the effect of event spend, natural capital, human capital and social cohesion on economic development.

1.3. Purpose and significance of the study

The study measures the simultaneous effect of independent variables (event spend, natural capital which includes physical attributes of the area, human capital and social cohesion) on economic development using error correction model (ECM) analysis. ECM is a time series model used to capture the linear interdependencies in a series with multiple variables. (Brook, 2008: 261). ECM will be used to test the hypotheses of the study and to identify the predictive power of each of the five independent variables on economic development as per the specified conceptual

model of the study. The main objective of the study is therefore to inform policymakers on the impact of event spend on economic development. The social impacts of hosting major events will also be investigated.

Similar studies in literature were conducted especially by Chanaron (2014:9-30), Tucker (2006) which published extensive literature survey and theoretical model based on expected city employment for Seoul, Barcelona, Atlanta, Sydney and Athens and concludes that there is a positive impact on employment associated with the Games; employment levels increase long before the Games in response to construction and increased international visibility; job creation is significant only one year after the Games and that the Olympics induce more employment in wealthier countries than in poorer countries, probably because wealthier countries are in better position to take advantage of the opportunities offered by the Games (foreign direct investments, tourism, etc.) and lastly that the greatest employment benefits the cities that spend the least. These conclusions are similar to our study but did not focus on intangible benefits like social cohesion. Chanaron further indicates that most studies done to justify hosting of events are impact studies and the gap identified is that they focus on benefits and pay little focus to the costs of events resulting in an over-estimation of benefits and under-estimation of costs.

The research output will be used to inform public policy on funding of events and economic development at local and national government levels. It will also contribute to the discourse on social cohesion. The South African Department of Arts and Culture is tasked with spearheading social cohesion efforts in the country and towards achieving this goal it has developed a policy and a strategic document and also plans to implement its efforts. The department defines it as social integration and inclusion in society reducing inequalities. Its focus is on nation building. It also identifies shared values that form a basis of nationhood as a shared origin and history, an internationally recognised territory, a unitary sovereign state, a single judicial system, single public education system, nationally recognised languages, nationally recognised cultures, nationally recognised religions, shared symbols and a shared national consciousness.

These were tabled at a national social cohesion summit in 2013 which identified 12 points to take forward as part of the declaration and resolved that language and

culture should not be impediments to social cohesion. It also resolved to start awards to recognise individuals and groups that are spearheading the cause of social cohesion. The study therefore contributes to the discourse on social cohesion and how sports contributes to a cohesive society. The findings of the study will be published in a peer reviewed journal as part of knowledge contribution. At least two conferences will be targeted for presentation including an international conference.

1.4. Research design

The research design to be used is applied research seeking to find correlation between independent variables. Time series will be used to measure pre-event and post-event periods. The outcome will inform policymakers of the relationship of variables so that a tool (solution) is developed to determine which events to fund in future. The outcome will benefit communities and contribute to economic development. Using secondary dataset has simplified and made it easy and cheaper to access data, find a large dataset and reputable datasets. The challenges of sampling have been overcome as well as study design and data collection time consuming challenges. The disadvantage is that information on study design and data collection may be scanty and data may lack depth.

1.5. Delimitations

Geographical location

The study will look at major events that have been held in South Africa since 1995. The study will also identify South African data sources such as National Treasury, Statistics South Africa and international agencies such as the World Bank and UNDP as sources of data.

Category of events

Major events have been defined by the study and focus will only be on those events that fit the definition.

1.6. Operational definition of concepts and variables

The following definitions that have been outlined in the literature review chapter include: major events, mega events, hallmark events and special events. The methodology chapter also outlined definitions of the tools of analysis like error correction modelling, least squares, Granger causality and Adjusted Dickey Fuller test including R-squared. Definitions of statistical concepts are also detailed in chapter four where findings are outlined.

1.7. Concluding Summary

This chapter introduced the research topic and outlined the conceptual basis of the questions the study seeks to address. The overall purpose of the study and its significance in shaping social cohesion and economic growth policy has also been outlined. The next chapter will present a critical evaluation of literature on the dependent and independent variables of this study. Whereas in Chapter two will lay out the theoretical grounding of the hypotheses that study seeks to test. Chapter three details the methodological processes followed to address the research question of the study and Chapter four presents the findings, which are discussed in the final chapter of this study.

Chapter Two: Literature Review and Conceptual Framework

2.1. Introduction and Background

South Africa is endowed with a beautiful landscape, climate, cultural diversity and a reputation for expertise in hosting major international events. It is also a country with many contrasts and contradictions. While being rated by the World Bank as an upper middle-income country “it is also known to have a high rate of poverty making it a country of duality; with a sophisticated first world financial and industrial economy alongside an underdeveloped informal economy” Sala-i-Martin *et al.* (2015) citing the World Economic Forum: Global Competitive Report (2015-2016) report. This contradiction creates a conflict when prioritisation of resources is done and decisions are taken to host major events in the midst of poverty and unemployment.

Since its independence in 1994 the country has already hosted the Rugby World Cup in 1995, the African Cup of Nations in 1996 and 2013, the One Day Cricket World Cup in 2003, T20 Cricket World Cup in 2007 and the most covered FIFA World Cup in 2010 among many others. Recently Durban has been given the rights to host the 2022 Commonwealth Games. All these events have been bidden for on the back of enabling economic development and infrastructure development. (Durban 2022 Commonwealth Games Bid Document). A significant amount of money was spent prior to the FIFA World Cup, building new stadia and new King Shaka International Airport and the renovation of OR Tambo International Airport and road infrastructure in order to unlock infrastructure development as well as economic development that is seen to flow from hosting major events (Bohlmann and van Heerden 2005).

The Department of Economic Development, Tourism and Environmental Affairs has since developed a country strategy in order to support the hosting of major events. Department of Economic Development: National Tourism Sector Strategy (2011), the aim of this strategy is “to capture every tourism niche from business, eco and cultural tourism through to adventure, sport and paleo-tourism”.

In the 2012 Annual report, the Department of Tourism indicated that tourism supports one in every 12 jobs in South Africa and has earmarked it as a growing sector. It has extrapolated that taking both direct and indirect economic contribution to the economy from a 2009 baseline of R189.4 billion (7.9% of the GDP) it will grow to R499 billion in 2020. The report further indicates that the hosting of major events has a direct impact on visitors to the country and uses the 2010 foreign visitor statistics which indicates that 8.1million visitors were received even though the economic period was tough and this was sustained in 2011 where 8.3 million international visitors were received. In August 2012 South Africa launched the National Development Plan 2030 which has two strategic goals for the country: to double the GDP by 2030 and eliminate poverty, and, to reduce inequality, as measured by the income Gini co-efficient, from 0.70 to 0.60 by 2030 through expanding economic opportunity for all. Based on this national strategic objective the National Department of Tourism in its strategy has then identified as critical to the National Development Plan the inclusion of tourism as one of the 6 job drivers of the New Growth Path framework. The report further indicates that 10% of foreign visitors come to South Africa to participate or to watch major sporting events and of these 60% to 80% are spectators. Consequent to this the tourism focus in the strategy is aimed at developing the sector as a growth path for economic development for South Africa (Commission 2012).

Cities in South Africa have started to maximise on their natural habitat and climate in positioning themselves for hosting major events. Whereas Durban has a favourable climate all year and is therefore able to host events even in winter, it is not so for other South African cities. The Events calendar for Cape Town 2012/2013 indicates that the majority of their events were hosted in February and March, 195 and 275 events respectively, which are summer months and fewest in July and August with 43 and 60 events respectively, which are chilly winter months. In contrast to this the Durban events are evenly spread throughout the year with peaks in December and July holiday periods. This is an indication that strategies for cities need to consider the natural climatic conditions and exploit them as well (Johnson 2010).

In 2015 the City of Cape Town developed an events strategy document which they use to take decisions on which events to invest in and approve; the aim of which is to

enable events packaging and the promotion of the tourism industry within the city. The strategy they drafted is underpinned by tourism growth figures as reported by AMR International and De Silva and Philips Ramukumba *et al* (2012). The White Paper on Sustainable Tourism Development and Promotion in the Western Cape (2011: 20) showed that growth in the events industry globally in 2003 – 2010 averaged 6.2% per annum, and projected a growth of 5.5% per annum from 2011. The United Nations World Trade Organisation (UNWTO, 2013) released a growth rate of 5% for 2013 compared to 2012 and extrapolated a 6% growth for emerging economies.

South Africa is currently lowly ranked as a sports investment country only featuring outside the top 10 for Tourism visited countries in 2012 with only 8.3 million visitors compared to 83 million visitors for the top ranked country, France. South Africa is ranked 24th in countries hosting sports events with 9 293 events hosted in the same period compared to China which ranked first having hosted 44 370 events. This indicates the potential that still exists and can be taken advantage of by the cities (City of Cape Town: Events Strategy 2015-2017, 2015).

The first profitable Summer Olympic Games was hosted in Los Angeles in 1984. The City posted a profit of USD200 million. This has revived the interest by countries in hosting major events which until then were previously only hosted for prestige and not considered profitable. The games are now seen as a vehicle to bolster economic development, public transport infrastructure and sporting facilities. Baloshenko (2012) further highlights that other non-tangible benefits including the promotion of healthy lifestyles and reduction of crime can be attributable to hosting of major events. Matos (2006) refers to the pre-event benefits attributable to hosting of major events as the “holy trinity of major events benefits”. The benefits include economic growth, infrastructure improvements and promotion of the good image of the host country. The study intends to identify variables that contribute to economic development during major events.

2.2. Theoretical Framework

This study is based on the political geography theoretical framework as propounded by Collier (2007: 1106). Collier argues that economic performance cannot be viewed in isolation from contextual issues such as location and physical attributes of the region. In his work Collier points out four distinct features that the economic performance of a region is contingent upon: (1) Resource-rich and landlocked; (2) resource-rich and coastal; (3) resource scarce and land-locked; and (4) resource scarce and costal. Collier (2007:1105) uses this framework to explain the substantial differences in opportunities for the different geographical regions and argues for different economic strategies on the basis of the location of the region. In addition to the abovementioned physical features, Collier (2007:6) points out two key political geography features that have to be taken into account in developing economic strategies - ethnic diversity and culture; and natural resources.

Given the natural resource based economy of South Africa and, in particular, Durban and Cape Town; combined with cultural diversity as explained in the foregoing section, the most appropriate physical attribute of South Africa as described by Collier, that fits this study is resource-rich and coastal. The implications of these attributes are that in looking at the interrelatedness of the five variables identified above: social cohesion, event spend and human capital, natural capital and economic development; it is important to examine contextual issues related to the political environment i.e. people and space and natural capital such as by culture, heritage and local environmental dynamics such as economic opportunities and social interests. Streb, Jorge. (2001).

Kollosov (2001:1) further defines political geography *“as an academic discipline studying the interaction between political activity of people and integral geographical space, which includes physical, economic, social, cultural and political spaces”*. He asserts that the when superpositioned these connections create a relationship between political activity and geographical conditions under which it develops. In turn this interaction influences economic development in the geographic space.

Streb (2007:5) illustrates how political institutions determine whether a country is poor or rich by highlighting the fortunes of East and West Germany, North and South Korea who had common heritage and similar endowments but different outcomes. Based on this illustration it can be concluded that the political geography theory highlights people dynamics and contradictions; it is also dependent on the self-interest of the population in question. Siegfried, Zimbalist (2000) indicates this point of public support for the development of new stadia as a reason for the boom in new infrastructure development. This suggests that community buy-in is key to the success and sustainability of major events. They further indicate that the authorities validate the worth of a community only if it is a “major league” city and therefore justifying the development of new stadia in cities.

Community buy-in is influenced by the evoking of patriotism and establishment of social cohesion within it. Jones, Jones and Woods (2004:202) illustrated the impact of political geographic theory by relating the story of Cathy Freeman at the 2000 Olympic Games in Sydney, Australia. “In front of a record crowd the Australian athlete Cathy Freeman sprints clear to win gold in the women’s 400 metre final. It is Australia’s first Olympic gold medal in athletics since 1988, and the hundredth medal won by an Australian since the start of the modern Olympics in 1896. Momentarily exhausted, Freeman sits cross-legged on the track, hands over her eyes and mouth. Then, collecting a flag from the trackside, she sets off on a barefoot lap of honour, draped in her dual-sided flag – on one face the ‘southern cross’ standard of Australia, on the other the red, black and gold Aboriginal flag. Cathy Freeman’s moment of Olympic history is saturated with political geography. Most explicitly, there is the demonstration of Australian patriotism, reflecting the way in which sports events often provide a focal point for the articulation of national identity. Yet, with Freeman, a black Aboriginal woman and Aboriginal rights campaigner, the event assumed a deeper, more complex, symbolism. Freeman had been reprimanded on a previous occasion when she had celebrated with the Aboriginal flag. This time, however, there were no objections as she waved her dual Australian and Aboriginal ensign. In doing so Freeman served not just to reaffirm Australian national identity but contributed to its reinvention, turning the Olympic stadium into the stage for a seminal performance in the politics of race and identity”.

Kollosov (2001:1-2) indicates that this is meant to show an interdependency between geo-political and administrative boundaries also between the different spheres of government and how these interrelate for the common good of society. Kolo J.(2010:1-3) illustrates this point by highlighting the remarkableness of the hosting of the 2010 FIFA World Cup, the first such event hosted in the African continent. South Africa arising merely two decades earlier was perceived as a pariah to the world and under apartheid, it still had racial, social and economic challenges lingering together with xenophobic tendencies. The world still had concerns of public safety and the high unemployment rate thus giving rise to doubts on the rightfulness to host such an event under these conditions. The success was therefore dependent on the cooperative working of society, political and administrative systems.

2.3. Conceptual Model

The investment in major events evokes both positive and negative sentiments from the public and commentators while it is seen as a vehicle to stimulate economic growth by sports federations and government departments. It has also been attributed to contributing to social cohesion and a sense of patriotism as communities come together to support their idols and heroes. Yates (2010:1) acknowledges the use of major events to profile cities and stimulate economic development. The contribution of mega-events to the tourism revenue of a city and the hosting country is also noted by Bohlmann and van Heerden (2005:12).

Collier (2007:1106) acknowledges the contribution of natural resources on economic development he contends that economic development must be contextualised within specific features of a geography political setting. This geopolitical location influence is further articulated by Kollosov (2001:1). The lack of quantifiable evidence to prove the impact of events is sharply raised by Chanaron (2014:2) and a call for the development of tools to measure both tangible and non-tangible variables is raised. These observations by researchers are further articulated in the literature review below and will identify variables to measure as we develop a conceptual model. “Even carefully collected results can be misleading if the underlying context of assumptions is wrong”. Bernd Heinrich (1984:151).

Literature has identified a few variables that are associated with hosting a mega-event. Some of these variables are event spend, natural capital, human capital and social cohesion.

2.3.1 *Economic development*

Real per capita income growth is another variable that has been measured that closely denotes economic development. Coates and Humphreys (1999) measures real per capita income in the Standard Metropolitan Statistical area $Y_{it} = \beta X_{it} + \gamma Z_{it} + \mu_{it}$ where Y_{it} represents real per capita income, X_{it} matrix of variables describing the economic and business climate in the SMSA(i) at the time(t) to a vector of variables which capture the role of stadia and franchises in the determination of economic activity, Z_{it} . Their conclusion suggests that the sports environment variables in the SMSA influence real per capita income in a SMSA but sports environment variables do not influence the rate of growth in real per capita income in a SMSA. Their conclusion based on the results is that “far from being engines of income increase, these results indicate that at best SMSAs get nothing from their sport franchises, at worst they pay dearly for professional athletic franchises”.

Mauricio Ortiz (2002:6) in his study uses an economic theory of supply and demand and focuses on *available employees* in the city and the demand for labour in the city. He concludes that “depending on the professional sport and the event involved the impact on employment in a city maybe positive, negative or not significant”. This variable closely resembles human capital and its relationship to economic development in this study.

Job creation is another variable noted in literature that is equivalent to economic development. Baade and Saunderson (1997) uses ordinary least squares model to evaluate job creation as a result of professional sports in the city and they conclude that “the results do not support a correlation between professional sports and job creation” however “the results suggest that professional sport realign economic activity within a city’s leisure industry rather than adding to it”. Another study done by Ian Hudson(1999) uses different ordinary least squares model measuring *employment* in a city, his study indicates that “the impact of sports teams on

employment growth is not significantly different from zero and if it were significant, the impact would be zero”.

Solberg and Preuss (2007:229) conclude that major events can generate *positive welfare-economic impacts* given the right circumstances. He then questions who should bear the costs of hosting major events, whether it should be the government or the private sector. He then compares several Olympic Games hosted and quantifies how much contribution was made by the private sector compared to government contribution. He ends by concluding that “according to the welfare-economic theory, governments only become involved in the hosting of sport events to prevent market failure” this variable is similar to what we have termed “event spend” in our study.

Hakes and Clapp (2005:18) have also looked at economic development by measuring quantity of tickets sold (q), ticket price (p), win percentage and other measures of quality play(w), stadium amenities and novelty(a) and market characteristics(m).

$$qt=f(pt,wt,wt-1,at,mt.) \quad (1)$$

Similar to what was observed by Zimbalist (2003), the study finds that there is a short-lived or what was described as a “honeymoon” attendance success to a new stadia, but no impact on team success and *gate takings*. Therefore it concludes that there is no correlation between new stadia, team performance and gate takings boost. Gate takings is therefore another variable found in literature that can be a proxy for economic development.

In light of available information in the literature and the identified variables, four hypotheses will be tested to determine the relationship between economic development, human capital, natural capital and event spend. The model to be developed will validate the relationship between these independent variables (x1-x3) and a dependent variable - economic development (y).

It is for this reason that this study poses four questions:

1. How is event spend related to economic development?
2. How are the physical attributes of the region (natural capital) related to economic development?
3. How is social cohesion related to economic development?
4. How is the human capital influencing economic development?

The following hypotheses have been developed in order to investigate, evaluate and develop a model that will determine the interrelatedness of the different variables contributing to economic development associated with investing in major events. The model will also determine the direction of the following relationships.

H1: Event spend influences economic development

H2: Natural capital influences economic development

H3: Human capital influences economic development

H4: Social cohesion influences economic development

2.3.2. Relationship between event spend and economic development

Literature has reported conflicting observations on the impact of event spend on economic development with some researchers finding that it has a positive relationship whereas others have found a neutral or even negative relationship. The literature review will seek to look at all these views in order to develop a model on the relationship of event spend and economic development. The White Paper on Sport and Recreation in South Africa (2011) identifies sport tourism as one of the focus areas to achieve and identifies the sustainability of the infrastructure investment for the 2010 FIFA World Cup as one of the reasons for this imperative.

Matheson (2006:2-11) highlights the effect of events on local, regional and national economies by looking at “ex ante” and “ex post” event spend studies i.e. predictive and real spend respectively. He highlights how economic impact studies often exaggerate and ignore hosting costs associated with the event. There is a substantial amount of literature to support this assertion. For example, Du Plessis and Maennig (2011:4) identify the economic benefits that were attained pre-event in the hosting of the FIFA 2010 World Cup in South Africa and acknowledge the long-term impacts of some of the major infrastructure developed to facilitate the hosting of the event have had a significant impact on the country. FIFA gained USD4.3 billion in commercial revenues from the event and distributed USD423 million to the LOC which ensured that the event was delivered within budget. Although no audit had been conducted at the end of the study, it could be seen as having been beneficial. The ripple effect to the economy could be confirmed due to the information at hand that there was an increased demand for vuvuzelas, replica jerseys, bus tours and stadium attractions.

OECD LEED (2010) indicates that the 2012 London Olympics organising committee in order to attain economic development had put in place a legacy programme that included urban regeneration, infrastructure development and environmental enhancement and identified the poorest area of the city as a beneficiary of the development. These include an Olympic Park, environmental construction policies, development of public transport infrastructure for the area, improving the competitiveness of SMEs and supply chain in relation to Olympic work. These learnings are then disseminated to OECD Countries as best standards or practice for hosting major events. It has further identified what local benefits to hosting major events should be and developed a template to measure these. The template also identifies secondary benefits that should be accrued to the area as a result of hosting the event.

The OECD LEED (2010) concludes based on evidence of Manchester 2002 Commonwealth Games which revitalised old neighbourhoods, and based on evidence from FIFA 2006 World Cup in Germany which contributed and championed a green strategy for the infrastructure development towards the games as well as

Athens 2004 Olympics which revitalised its cultural precincts and revived ancient cities, that major events can be a catalyst for economic development.

Another team of researchers, Bohlmann and Van Heerden (2011:5) , also looked at the pre-event spend of the 2010 FIFA World Cup in South Africa and deduced that there was positive impact on infrastructure and economic development as a result of the investment made for the event. They then developed a model to evaluate the quantum of the economic value derived from this event.

Whereas contrary to these views expressed in these studies, Chanaron (2014:9) observes that hosting of major events like the Olympic Games, FIFA World Cup and the Commonwealth Games are always punted as providing the hosting nation and/or city with huge benefits but evidence for such benefits is exaggerated. He further asserts that organisers and proponents of events focus on the benefits of hosting which are largely economic, social and cultural impacts for the region, they also highlight the skills transfer to the economy of the area through contributions to scientific and technological progress and innovation. His contention is that the intention of these proponents of major events is to justify to the electorate and the public the huge and growing financial investment required for organising Olympic Games or World Cup.

Briedenhann (2011:2) acknowledges the rationale that was forwarded for hosting the 2010 FIFA World Cup but indicates that evidence does not support the envisaged growth and predictions. This could be attributed to the disruption and slow progress on the public transport programme and its impact in the viability of the newly built infrastrure. The sociopolitical situation such as poverty, poor consultation and buy-in by communities resulted in missed deadlines in infrastructure construction and protracted negotiations with taxi drivers. Furthermore, strikes at stadia and Gautrain construction sites and the adverse financial climate are seen to have impacted on the 2010 projects as well.

Siegfried and Zimbalist (2000:5) has categorically stated that no evidence can be found that supports the assertion that building stadia promotes economic development. They refer to a scenario where new facilities are built because the old

ones are no longer suitable. Arguably, the building itself is not the problem but the financial suitability to make new streams of revenue is usually what is being referred to here. The state or local government usually pays the bill for the new development of the facility but the revenue accrues to the club.

Chanaron (2014: 2) admits that the literature on economic impacts of events is limited and quotes Andreff (2006) who could not identify economic studies related to hosting of Olympic games and contended that the available economic impact studies were of limited value. He further indicates that what also confounded the matter was the many confounding variables that were linked to the economic value; these according to Veraros&al. qualify as a multiplier effect. In the same study Chanaron (2014:2) refers to Atkinson&Mourato (2005) and Preuss (2004) who are credited with writing an Olympics Games economic evaluation model. Like other researchers Chanaron (2014:2-3) acknowledges the many positive and negative effects of sports events as both economic and technological in nature. These are further reiterated by Gratton & Preuss (2008) who found legacy such as urban planning and sport infrastructure to less tangible benefits such as *“urban revival, enhanced international reputation, increased tourism, improved public welfare, additional employment, more local business opportunities, better corporate relocation, chances for city marketing, renewed community spirit, better interregional cooperation, production of ideas, production of cultural values, popular memory, education, experience and additional know-how”*.

Other researchers have linked hosting of mega-events by cities and countries to negative legacies such as debts from constructions, high opportunity costs, infrastructure not needed after the event, temporary crowding out, loss of tourists, increase in property rentals during the event, socially unjust displacement of people to make way for infrastructure and redistributions. These are non-tangible impacts that are difficult to quantify and measure but social cohesion as a variable will be included as a variable and hopefully will be able to take care of some of these impacts.

Briedenhann (2011:2) refers to the assertion by Hall, 1992 cited in Allen et al., 2008 that mega-events are targeted at the international tourism market primarily, it is

therefore the success to attract international and overseas visitors that would be a yardstick of economic benefit from hosting the event. Matheson (2006:9) highlights that at least 5-20% of visitors to the MLB league games come from out of the city and during the period the hotels and hospitality industry tend to inflate their prices to dissuade local casual visitors. Baumann (2010) Business Day reported an envisaged tourism boom predicted by Grant Thornton of as much as 378 000 more overseas visitors expected, however this did not materialise. Instead 109 621 more overseas visitors visited the country during the event compared to 2009. Statistics South Africa (2010). Du Plessis and Maennig (2011:4-5) compared flight data obtained from ACSA and noted that 8 more planes were added for the opening day of the FIFA World Cup 2010 indicating a 6% increase in the number of flights. They also found that there was an 11% increase in seat occupancy compared to a similar period in 2009. Although this finding was made they were generally pessimistic and were supported by econometric evidence not only in studies of the FIFA World Cup, but also in those related to other major sporting events or venues (Maennig and Du Plessis 2007). The tourism visitor numbers will be used as a tool to measure economic development in this study.

Cities like New Zealand have developed their major events strategy based on the view that it influences economic development and they have therefore put conditions to facilitate this, like event revenue must indicate international tourism to New Zealand, brand promotion, business and trade opportunity development and increased participation in sports and art and culture must be demonstrated, among some of the indicators. As a preference they fund proposed events if they are off-season or off-peak so that there is more revenue during their off season period. New Zealand: Major Events Strategy.

The International Platform on Sport and Development concurs that the inability to invest in sport by underdeveloped countries results in an efflux of athletes from their home countries to more developed countries of the world and this is referred in literature as “muscle drain” which is synonymous to brain drain. Athletes from developing countries in Africa and Asia mainly therefore become cheap and are imported to more lucrative markets in Europe and the USA. Andreff (2005).

The value of sponsorship is sometimes overlooked, most of it goes to sports due to spectator interest and television viewership. In North America \$21 billion was spent on sponsorship in 2015 and there was a growth of 4.2% in 2014 compared to other marketing methods; advertising came behind with 3.1% and 2.8% for promotions and publications.

It is therefore apparent based on the literature that certain variables are integrally linked to economic development and should be considered in the development of any model that looks at the link between event spend and economic development and these are the number of visitors during and after the event, jobs created before and during the event which will include short-term and full-time employment as a result of the event and the skills attained through hosting the event and event spend will consider how much government spends towards cultural, sporting and recreational programmes in its budget. Accordingly this study tests the following hypothesis:

H1. *Event spend influences economic development*

2.3.3. Relationship between natural capital and economic development

Natural Capital is defined as the world's stocks of natural assets which include geology, soil, air, water and all living things (World Forum on Natural Capital:Edinburgh, 2015). When a decision to host a major event is taken does it consider nature and the people in the decision matrix, this is aptly demonstrated by *Mark Gough, Executive Director of the National Capital Coalition, said: "The Natural Capital Protocol will allow all businesses around the world to realise the benefits of including nature in their decision making. It has been amazing to see how a community can come together at a time of need and collaborate to produce something for the common good. Now we have a standardised framework, it is time for action."* According to the World Business Council for Sustainable Development (WBCSD) legacy programmes associated with major events live a lasting benefit to the local community, local business and stakeholders (OECD LEED 2010:17). This according to the study ensures that the local community are not disaffected bystanders to the event but actively participate. The OECD study compares the Olympics from 1992-2008 and the FIFA World Cups from the same period and

identified geopolitical contribution of the games to GDP growth in each of the cities as a consequence of hosting the major event. The study also indicated where no economic impact was realised. On the basis of the OECD findings this study postulates that natural capital has an effect on economic development.

H2. Natural capital influences economic development

2.3.4. Relationship between human capital and economic development

Human capital is defined as a measure of the economic value of the employee's skill set. The concept therefore suggests that labour of an employee is not equal or stagnant and can be improved by investing in it e.g. with education, experience and exposure. This has economic value on the economy of the country as a whole. When Theodore Schultz coined the term Human Capital in the 1961 it was because he believed if invested in, human labour with education, training and enhanced benefits, it will lead to an improvement in quality and level of production; "something akin to property" (Kwon, Dae-Bong (2009). It further asserts that organisations exist to make profits and therefore organisations that have happy and productive staff outperform their peers.

According to Ashton and Green (1996) the link between human capital and economic development should be considered within a social political context in order to precisely measure human capital. Researchers agree that human capital impacts at both individual level, (Berker, 1993; Schultz 1961,1971; and Denisen, 1962) and at organisational level (Edvison and Malone, 1997). There is therefore also a link between human capital and social consciousness resulting in socio political development Kwon, Dae-Bong (2009:17). Klaus Schwab, Founder and Executive Chairman of the WEF reports in the 2015 Human Capital Index that talent and not capital will be the key factor linking innovation, competitiveness and growth in the 21st century.

The World Economic Forum Human Capital Report (2015:37) acknowledges the impact of a skilled workforce and also the changing expectations and demands of the new generation worker necessitating changing methods of delivery of education, timing and resourcing. The Federal Government of the USA has developed a model strategic human capital management tool that focuses on key focus areas of

leadership, strategic human capital planning, acquiring, developing and retaining talent and results-oriented organisational culture as the human capital cornerstones of their system and these are anchored by eight critical success factors which are: commitment to human capital management, role of the human capital function, integration and alignment, data-driven human capital decisions, targeted investments in people and human capital approaches tailored to meet organisational needs. These are essential for the organisation to meet its objectives and also grow into the future. It therefore summarised the eight critical factors in a statement that “people are assets whose value can be enhanced through investment. As with any investment, the goal is to maximise investment while managing risk”, US GAO: 2002. It is therefore the aim of this study to test the hypothesis that human capital has an effect on economic development .

H3. Human capital influences economic development

2.3.5. Relationship between social cohesion and economic development

Friedkin (2004:409-425) admits that the definition of social cohesion is sometimes confusing as it has varied and multi-dimensional variables that researchers are targeting. He attributes this to the complexity of linking the variables to the individual whereas individual behavior needs to be linked to group level behavior in order to confirm the impact of social cohesion.

Hogg (1992) defines social cohesion as arising ... when individuals identify themselves as members of a particular group and not as members of other groups whereas Stanley (2003:5) defines Social cohesion as “*the willingness of members of society to cooperate with each other in order to survive and prosper*”. In developing a South African definition influenced by the local context the National Department of Arts and Culture (2013) describes it as ‘the degree of social integration of communities and society at large and the extent to which mutual solidarity finds expression among individuals and communities’. This suggests that social cohesion is dependent on shared values and therefore an incentive or catalyst is necessary to promote such cohesion among community members. The reward could be self-actualisation or gratification as a result of being part of a great event.

Some psychologists define social cohesion as being determined by individual traits and similarities among group members whereas sociologists see it as a structural issue looking at how interlocking parts of the whole group interact with each other in order for the group to function effectively. Duane Cloud in Study.com, argues that for a group to function certain standard norms must be uniformly applied as standard behavior and must be enforced uniformly for cohesion to be strengthened.

Dayton-Johnson (2003) in defining social cohesion believes it is intrinsically linked to social capital which he defines as an individual's sacrifice (time, effort, consumption) made in an effort to promote cooperation with others. He sees social cohesion as a characteristic of society which depends on the accumulation of social capital. He concludes that social cohesion determines how an economy pulls together. Investment made in social capital is incentivised by social cohesion fruits, therefore the more investment that is made in society the more socially cohesive it is likely to become.

Social inclusion is therefore a critical component of social cohesion and of economic development as indicated by scholars like Putnam (2000) and Dayton-Johnson (2003) Oxoby (2009:9) confirms that social inclusion positively affects a person's incentive to invest in social capital, it is therefore a means to developing greater social cohesion. The relationship is therefore an indication of a strong link between social inclusion, social capital, social cohesion and economic investment in society. On the other hand it is concluded by Oxoby (2009:10) that exclusionary practices result in weak incentives to invest in social capital and therefore less cohesive communities are formed.

TABLE 1: BERNARD'S INTEGRATED CONCEPTUAL SCHEME OF SOCIAL COHESION (1999)

Sphere	Nature of relations	
	Formal / attitudinal behavioural	Substantial /
Economic	Case A Insertion/exclusion	Case D: Equality/inequality
Political	Case B: Legitimacy/illegitimacy	Case E: Participation/passivity
Socio- Cultural	Case C: Acceptance/rejection	Case F: Affiliation/isolation

Source: *Statistica Applicata* Vol. 20, n. 2, 2008, p 79.

Bernard (1999) views the social cohesion concept as a quasi concept or hybrid and defines it as a “dialectic balance between three values: freedom, equality and solidarity”. Jensen(1998) introduces 5 elements to the definition of social cohesion and the five identified elements are belonging vs. isolation, inclusion vs. exclusion, participation vs. non-involvement, recognition vs. rejection and legitimacy vs. illegitimacy.

Sen (1985) articulated a view on how commodity affected capability where he indicated that the inability to obtain commodities (as a result of poverty and market imperfections) this reduces the capability of an individual to effectively participate in society. He further asserts that where there is unequal distribution of the economy, a large portion of the society lives in poverty which results in social exclusion. The HDSE(2001) has identified rights that will limit social exclusion in society and promote social cohesion and these are: access to employment, access to housing, access to social protection, access to health and access to education. It is found that when these are attained poverty is reduced and there is increase individual and social welfare. Oxoby (2009:15) concludes by indicating that from a social and economic policy perspective,when a common identity has been developed among citizens, it fosters a greater sense of inclusion among the population.

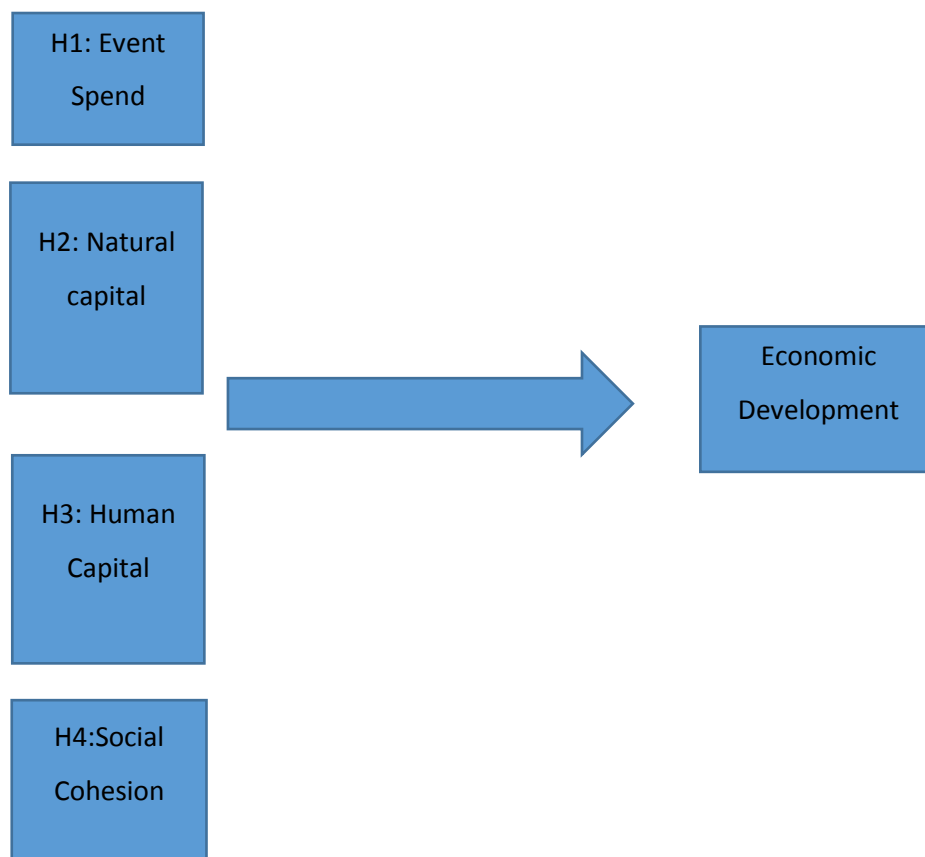
Visser (2015:1-2) studied the socio-cultural impact of hosting major events by looking at the FIFA World Cup 2010 impacts on a community living in Cape Town

and concludes that the hosting of the World Cup in 2010 had a positive impact on residents and the socio-cultural benefits identified included national pride, a strong South African identity was evoked and patriotism. A British study on social cohesion in 2007, found four factors that result in social cohesion being enhanced: positive relationships, equal life chances, civic engagement and participation and common vision and values. These factors allow the community to grow in harmony and less friction. The study therefore intends to test the following hypothesis:

H4. Social Cohesion influences Economic development

by looking at supply and demand of labour as a result of hosting a major event.

FIGURE 1: CONCEPTUAL MODEL OF THE CURRENT STUDY



2.4. Measurement issues

Various authors like Gammon and Robinson (2003), Gibson(2010), Deery et al(2007) have looked at sport and tourism and devised various ways of measuring *the impact*

of sporting events on economic development; for the purpose of this study we will use the tourism employment data as a proxy for economic development resulting from events hosted during that period. This data is collated by Statistics South Africa on an annual basis.

The *event spend* for major events is adopted by National Government of South Africa and National Treasury includes it in the budget for the period covering the event, for example The Minister of Finance in SA, Trevor Manuel announced in his mini budget statement in October 2006 that R14.9 billion would be set aside over the next three years in preparation for the FIFA World Cup in 2010. Most of the budget towards major events reside in the Sports and Recreation South Africa budget and also in the Arts and Culture budgets. Its in this light that the Culture, Sports and Recreation budget will be used as a measure for *event spend*.

Gross Domestic Product (GDP) The World Bank measures GDP of countries in the world and identifies sectors contributing to the growth of the economies of those countries. The South African economy grew by 3.3% from 1994 to 2013 compared to the world economic growth of 3.6%. this closely tracked the global growth. This also means that the economic growth in 2013 was 81% higher than in 1994 (IDC:2014). The IDC further identifies that different economic sectors contributing to the growth were arethe financial services (at 1 percentage point); manufacturing (0.5%); trade sector (0.5%) and transport sector (0.48%). Other traditional sectors of the economy such as agriculture and electricity sectors contributed a very small percentage at 0.05% each. Mining contributed a marginally negative part at -0.03%.This measure will be used to measure *natural capital*.

Gross Enrolment Ratio, secondary school, both sexes: The World Bank publishes data on educational indicators across the world. The measure compares the GDP of the country, the level of education obtained, the spend on education,youth literacy rate per population, unemployment rate and the labour force rate per gender.(The World Bank) This measure is used as a proxy for *human capital* in our study.

Social Assistance Expenditure: The OECD define social expenditure as” the provision by public (and private) institutions of benefits to households and individuals

in order to provide support during circumstances which adversely affect their welfare.” The expenditure may include actual cash payment but this cannot be in lieu of work done but only to provide social support. Van der Berg (2006:200) indicates that this spend reflects governments commitment to social equity and political policy commitments. This measure will be used as a proxy for *social cohesion* and the data will be sourced from the South African Reserve Bank.

2.5. Definition of events

In the literature review process it became obvious that different authors define events in a manner that may result in the confusion and sometimes the terms major or mega event are used interchangeably. The study will therefore attempt to define the different terminologies used and indicate what will be measured in our situation.

2.5.1 Definition of terminology used: Mega-events, Special events, Hallmark event, Community events

While literature has tended to use these descriptive terms interchangeably, Roche (1994:1-2, 2001, 2012) has assisted with developing a description of mega-events as a “one time or recurring events of limited duration, which serve to enhance the awareness, appeal and profitability of a tourist destination in the short and/or long term”. He further describes the characteristics of a mega event as being associated with infrastructure development, positive image and identity for the host city through national and international media. This has assisted to differentiate mega-events according to size, impact, popularity and cost. The impact will also vary depending on these factors.

TABLE 2: CATEGORIES OF SPORTING EVENTS

Type of Event	Example of Event	Target Audience	Type of Media interest
Mega-Events	Olympic Games, FIFA World Cup	Global	Global
Special Events	Formula One, World Regional Sports (e.g. Commonwealth Games, Afcon, Uefa, Copa Americas)	World Regional/National	International/National
Hallmark Events	Large sporting events in particular location(e.g. Comrades marathon, Cape Argus, Adelaide Festival)	Regional	Regional TV
Community Events	Local community sporting/cultural events	Local	Local TV/Press

Source: *The socio-cultural impact of the 2010FIFA World Cup on the Cape Town residents. SD. Visser, CPUT,2015, p15*

Mega-event: There are divergent views in terms of the meaning and definition of a mega-event, Muller (2004:625-642) identifies four characteristics that constitute elements of a mega-event and these are: visitor attractiveness, mediated reach, costs and transformative impact. Based on these characteristics Muller then classifies large events into major events, mega-events and giga-events. The differentiating characteristics are defined below:

Visitor attractiveness: Formica (2000:1) this is a combination of attractions available in a destination that creates a buzz or attractiveness perception about the area or facility or attractions. Whereas Ryan (2003) refers to visitor attractiveness as due to people's perception of the area as a result of the information disseminated about the place or experience. This could be termed marketing of the area or attraction or event. Milman (2009) found that location was an important element contributing to visitor attractiveness, he also found that studying about the area or event was another vital element especially in culture and nature based attractions. Other important elements identified were ambience and safety. This suggested that an environment that is safe and friendly gives a good impression that is welcoming. Other elements identified were courtesy and cleanliness of the venue or area. Equally important was good service, a quality product and value for money.

Mediated reach: this characteristic recognises that the majority of people who watch a major event do so on television or on the internet so this is about the power of the media to transmit the event. Advertisements drive event sponsorship and the space for advertisements during events is premium as millions of people are reached per second. In the planning stages of an event, absolute care must be taken into consideration about its reach so that it is positioned properly so that it has a wide reach beyond the spectators at the venue and in that particular country. Horner (2007:81-87). Horner further indicates that events have significant reach for the city that is hosting it and attract considerable media coverage which works well for the tourism agenda of cities if they position themselves well.

Cost: the major costs of a mega-event are those related to accommodating athletes, building facilities for the games (event facilities) and the operating costs to run the event. For mega-events this can be calculated in billions if new facilities are constructed and a new athlete's village is developed. Baade.(2006),Coates and Humphreys (2006) have all identified that costs include the investment cost, operating costs and benefits on investment in sports facilities. These are ex-ante and ex-post costs i.e. pre-event and post-event costs.

Transformative impact: recent events including the FIFA World Cup, Olympic Games and other mega-events have included these terms in their bidding documents what is termed "legacy projects". These are projects that are aimed at changing the spatial landscape of area as a result of hosting the event. It is also aimed at leaving a permanent impact in the local community or economy. These are usually referred to as specially transformative as a result of the event being a catalyst for investment in the identified sectors for the particular event. The sectors usually identified include energy, transport, accommodation and green economy among other transformative projects. Some legacy projects target people especially poor communities and the youth and develop transformative impact by introducing developmental programmes on sport development and skills development. (Horne, Manzenreiter,2006; Gaffney, 2010; Muller, 2004)

2.5.2 *Mega-Events*

Mega events can be classified into sporting and non-sporting events. The sporting events can be further grouped into a single code event or multiple code events. These are further classified into first tier events based on impact of the events and second tier events due to less precious or popularity status. The following non-sporting events are generally included in the definition of mega events as a result of their impact expos, political summits, conventions or festivals (Hiller, 1995; Ritchie and Yangzhou, 1987; Rose and Spiegel, 2011).

Sporting Events

Certain literature has only recognised or focussed on sporting events as mega events. Horne & Manzenreiter, (2006). In their definition of a mega event they have considered the number of spectators and television viewership as critical to the definition. The number of attendees to the event and participants are also important but do not necessarily indicate the size of the event. The authors have therefore deduced that most people would consider the event as mega based on the revenue it produced. The location and time of the event was noted by the authors to have an impact on whether the event was mega or not. The time change factor was also noted to have a contributing factor as it influences major television markets across the world and viewership numbers. Zimbalist, (2012a)., Maennig & Zimbalist. (2012a).

First tier events

Two global events are acknowledged as the main mega events in the world. This is based on size, impact, popularity and cost. These events are the Olympic Games and the FIFA World Cup. Whereas the FIFA world cup is a single code sporting event the Olympic Games is a multiple code event. The 2014 FIFA World Cup in Brazil was catalytic to the cities that hosted it as it contributed to new infrastructure development, 120 projects linked to the it and was hosted in 12 host cities. The infrastructure developed include stadia, transport infrastructure, airports, ports, security installations, telecommunications and tourism sites. In terms of popularity it reached world audience and the country received an increase in international visitors. The cost of the games is estimated at US\$15 Billion.

Second tier events

The Winter Olympics has been mentioned by certain authors as a mega-event (Andranovich, Burbank, & Heying, 2001., Andranovich, Burbank, & Heying. (2001). In the contrary other scholars do not regard them as mega-events but rather second tier events. Coates(2012). Maennig and Zimbalist (Eds.), Elgar.; Horne, (2007).

In recent times more codes have developed World Cup games resulting in other single codes outside football also being accorded the status of mega events. These are single code sports like the Rugby World Cup or the Super Bowl, (Fourie & Santana-Gallego, (2011), Gold & Gold.(2008). For the sake of this study I have defined mega-events as those events that are of a significant size, economic impact and attract significant visitors to the city or country due to their international nature. The budget expenditure used as a proxy for event spend will in the main consider a national treasury vote that is used for arts and culture, religion and sports and recreation where these events reside.

Another category of events that will be considered as it is also budgeted for at national government level are special events. These are usually big events but do not have the same prestige or viewership and participation as the mega events. An example would be the Commonwealth Games. A special event is a regional event which may be global in nature or of only one type of sport. During the study period South Africa was announced as a host of the Commonwealth Games for 2023 but due to heavy financial obligations of hosting the games was later withdrawn as a host.

The games are commonly referred to as “the Friendly Games”. The Commonwealth of nations host the games in order to meet five objectives :

1. Sentimental and historic value,
2. Trade and investment and currency agreements,
3. Population migration discussions,
4. Common objectives on education, professional and judicial heritage and

5. Sports exchange. The projected cost of the games for Durban were projected at R8.6bn including operational costs.

Non Sporting events

These are usually conferences and trade fairs which are huge enough to attract a world audience. E.g. The International AIDS Conferences, International Trade Faires, World Economic Forum, etc.

2.5.3 Hallmark Event

Hall, GeoJournal (1989) defines a hallmark events as ... major faires or exhibitions, expositions, cultural and sporting events of international status which are held on either a regular or a one-off basis. A primary function of the hallmark event is to provide the host community with an opportunity to secure high prominence in the tourism market place. In our region the Comrades Marathon would qualify as such an event. These events are sometimes confused with mega-events which are International events with wider tourism appeal and media appeal. For this study we will not delve into detail on hallmark events.

2.5.4 Community Events

These are local events that usually are of interest to the local community and are limited in impact and cost. They are usually funded privately or by local government.

TABLE 3: MAJOR EVENTS HELD IN SOUTH AFRICA SINCE 1994

Description of event	Category of event
• 2013 Africa Cup of Nations	Special event
• 2010 Fifa World Cup	Mega-event
• 2010 BMX World Championships	Special
• UCI MTB World Cup	Special
• 2009 ICC Champions Trophy	Special
• 2009 Fifa Confederations Cup	Special
• 2009 Indian Premier League	Special
• 2007 World Twenty20 Championships	Mega
• A1 Grand Prix (since 2006)	Special
• Fina Swimming World Cup (since 2003)	Special
• Red Bull Big Wave Africa (1999-2008)	Special /hallmark
• Six-star rated surfing events (annual)	Hallmark
• 2006 Paralympic Swimming World Champs	Special
• 2005-2008 Women's World Cup of Golf	Special
• 2003 President's Cup	Special
• 2003 Cricket World Cup	Mega
• 1998 World Cup of Athletics	Mega
• 1996 World Cup of Golf	Mega/special
• 1996 African Nations Cup	Special
• 1995 Rugby World Cup	Mega

2.6. Conclusion

Many authors that have tested the relationship between event spend and economic development have generally agreed that event spend on infrastructure for the games is a catalyst for economic development. However, there is still uncertainty on whether the stadia that usually take the bulk of the spend contribute to sustained economic development in the long term. Collier is adamant that the economic impact studies are overly exaggerated and the real economic benefit achieved is minimal. Collier (2007), Mattheson (2006) as well as Du Plessis and Maennig (2011) are key authors on the subject matter that have shaped some of the thinking on this study.

The current study focuses on mega-events and special events hosted in South Africa post 1994 up to 2016. The study does not include hallmark and community events as their impact is limited and has little or no catalytic impact to the city or country. (H2) will look at natural capital as reflected by the area specific characteristics and measured through GDP against economic development.

The literature looking at the relationship between human capital and economic development (H3) indicates that human development catalyses economic development. The study looks at gross enrolment rate (GER) data for both males and females with secondary education and look at whether GER correlate with economic development as indicated by tourism visitor statistics . The theoretical domain that formed the basis of hypothesis (H4) that links social cohesion and economic development is highlighted by the fate of two cities - North and South Korea and how their economy developed in the opposite direction when all other conditions are the same except the political geography issues that resulted in a socially cohesive and a non cohesive situation impacting on economic development. As will be shown in the methodology chapter, social expenditure is tested against economic development to establish if a relationship exists.

The next chapter endeavours to test the four hypotheses H1, H2, H3 and H4 and will use reliable and validated secondary data collated by reputable institutions, the Statistics South Africa, South African Reserve Bank and World Bank to determine the relationship between the key variables of this study: event spend, social cohesion, natural capital and human capital.

Chapter Three: Research Methodology

3.0. Introduction

The study looks at events bidden on and hosted by cities from 1994 to 2016 and has focused on mega events and special events as defined in chapter 2. Four research questions have been asked and through literature review culminated in four hypotheses that will be tested. The questions seek to determine the relationship between event spend, natural capital, human capital, social cohesion and economic development. The questions that have been asked are:

1. How is event-spend related to economic development?
2. How are the physical attributes of the region (natural capital) related to economic development?
3. How is social cohesion related to economic development?
4. How is the human capital influencing economic development?

As a result of the questions asked the following hypotheses are framed and are being tested:

H1: Event spend influences economic development

H2: Natural capital influences economic development

H3: Human capital influences economic development

H4: Social cohesion influences economic development

3.1. Research design

The research is a quantitative study and uses secondary data from national and international reputable data sources (Statistics South Africa, National Treasury of SA, Brand South Africa, World Bank and United Nations Development Programme (UNDP) to test the four hypotheses objectively as outlined in the foregoing section. This study collects time series data on each of the four variables of the study from 1994 -2016.

TABLE 4: FUNDAMENTAL DIFFERENCES BETWEEN QUALITATIVE AND QUANTITATIVE RESEARCH STRATEGIES

Orientations	Qualitative	Quantitative
Principle orientation to the role of theory in relation to research	Inductive; generation of theory	Deductive; testing of theory
Epistemological orientation	Interpretivism	Positivism
Ontological orientation	Subjectivism/constructivism	Objectivism

Source: Adopted from Bryman (2004)

Table 4. outlined above illustrates the fact that as a quantitative study, the role of theory in relation to the research is deductive in that the conclusion is made based on a theory that is already known whereas in qualitative studies we use inductive reasoning which means that there must be support provided for the reasoning and through that process we generate theory. Clément Renaud describes the philosophies of Ontology and epistemology as... epistemology is about *the way we know things* whereas ontology is about *what things are*.

Positivism is described by Dudoviskiy (2016) as a... philosophy that can be scientifically proven or capable of mathematical proof thereby rejecting metaphysics and theism. Positivism focuses the researcher to concentrate on facts, whereas interpretivism or phenomenology focuses on the meaning and has provision for human interest. Phenomenology is a variation of Interpretivism, it focuses on experiences, events and occurrences but pays little or no regard to the external and physical reality.

Crowther and Lancaster (2008) further indicate that as a general rule, positivist studies usually adopt a deductive approach, whereas inductive research approach is usually associated with Interpretivism or phenomenology philosophy.

Five principles of positivism are highlighted by Dudoviskiy (2016) in their philosophy; one relates to no differences in the logic of inquiry across sciences; secondly that research has a basic aim of explaining and predicting; thirdly that research is

empirically observable through human senses; fourthly that inductive reasoning should be used to develop statements (hypotheses) to be tested during the research process and fifthly that science is not the same as common sense and is value-free and should be judged only by logic.

Positivism as an epistemology has the following disadvantages - relies on experience as a valid source of knowledge and disregards basic concepts such as cause, time and space are not based on experience. It also assumes that you can perceive all types of processes as either a variation of actions of individuals or relationships between individuals. It is also noted that findings in positivism lack insight into in-depth issues.

3.2. Ordinary Least Squares (OLS) and Time Series Research approach

The study will use ordinary least squares regression test; a method used to test and evaluate a relationship between multivariate factors that have a dependent variable(y) as well as various independent variables (x). This method is used when the relationship between a dependent variable and one or more independent variables is being described and tested. Simply put we will use known variables (independent variables) to predict how the unknown variable (dependent) will behave. In a normal correlation equation (y) and (x) are treated in a symmetrical manner whereas with regression equations the dependent variables are considered random (stochastic) whereas the independent variables are treated as fixed (non-stochastic) the distribution of the dependent variable is therefore expected to have a probability distribution. OLS recognizes that there could be errors in the relationship between dependent and independent variables. It also asserts that if there is no error in an identity it is always true.

For estimation and interpretation of the Ordinary Least Squares regression, the following statistical tests will be used; the f-test to determine the overall significance of the model whereas the r-square test will test the goodness of the model. β is a parameter used to test the magnitude, direction and significance of the hypothesis. In order to make sure that the assumptions are valid we will check for the linearity, normality, homogeneity and independence of the assumptions. Linearity will refer to the relationship between the predictor and the outcome variable that it is linear in

parameters. Normality will look at errors and homogeneity looks at variances while independence refers to errors associated with one variable are not correlated with errors of other observations. Linear regression is defined as an analysis that assesses whether one or more predictor variables explain the dependent (criterion) variable. Five key assumptions are made:

- Linear relationship
- Multivariate normality
- No or little multicollinearity
- No auto-correlation
- Homoscedasticity

The stationarity of a series can strongly influence its behaviour and properties, if non stationary the persistent shocks will result in infinite non stationary series. If a variable or two are trending over time there may be an unstable R^2 . If the variables in the regression model are not stationary, then the standard assumptions will not be valid. The t-ratios will not follow a t distribution and the regression test cannot be performed to test the hypothesis.

Multicollinearity has been defined in literature as ...a phenomenon in which two or more predictor variables in a multiple regression model are highly correlated, meaning that one can be linearly predicted from the others with a substantial degree of accuracy (Wikipedia).

When measuring variables in regression, a sequence or a vector of random variables is homoscedastic if all random variables in the sequence or vector have the same finite variance. This is also known as homogeneity of variance. The complementary notion is called heteroscedasticity (Wikipedia). Cointegration is defined as the condition of two non-stationary time series whose linear combination is stationary. A cointegrating relationship may be seen as long term.

Error Correction Modelling (ECM) will be used as the analytic tool, we intend to analyse the change in one variable and establish if it is related to the change in another variable (Cottrell A, 2004: Economics 215). ECM measures the gap in the variables in the past period. It is a time series modelling methodology.

3.3. Data description

The study documented in this dissertation uses time-series data to test the hypothesis presented above. The main sources of data that will be used for empirical analysis consists of annual time-series panel data sourced from world class international databases available from the UNDP, the World Bank, South African National Treasury, Statistics South Africa and Brand South Africa. The regression models tested in the study include the interaction of human capital, social cohesion, natural capital event spend and economic growth. The study is correlational in nature since it looks at the how a variable results in the change in another variable.

3.4. Data Source

The study used data from reputable sources on economic development and economic growth related to tourism and events, human development indicators related to Human Development Index, Gross Domestic Product over a period of time as a proxy for natural capital, social cohesion indices as measured in the Country Index. The data covers the period from 1994 -2015 and is specific to South Africa. The following data sources publish time series data and were utilised for the purpose of this investigation:

- Country tables in the World Bank annual publications of key economic indicators
- World Bank Tables on GDP
- SARB Social Assistance Expenditure statistics
- Domestic Tourism Surveys by Statistics South Africa
- Statistics SA reports on Expenditure on Culure,Sports and Recreation

The advantages of using secondary data sources is that the study design and data collection is already done and therefore cheaper to access data. It makes it easier to gain access to historical datasets of higher quality due to large samples and larger target populations that had been used to form the dataset. The disadvantage is that the study design and data collection is already done and information on study design and collection may not be available. Constructs may be operationally defined by a single item and create a challenge of reliability and validity (Koziol 2014).

3. 5. Variables and operationalisation

Variables. The analysis considered four major independent variables included in the base model: natural capital, human capital and event spend. Economic development is the dependent variable. A second equation looked at the relationship between event spend and social cohesion.

As indicated in Table 5, *Economic Development* was measured using the Tourism Employment Index which looks at an aggregation of transport, accommodation, food and beverage services, recreation and entertainment and travel agencies employment data. This is then published by Statistics South Africa as a contribution of the tourism sector to the economy.

TABLE 5: VARIABLES, MEASURES AND DATA SOURCE FOR THE CURRENT STUDY

Variable	Measure (proxy)	Data Source
Economic Development	Tourism employment annual data	Statistics South Africa
Event Spend	Annual Expenditure on Culture, Sports and Recreation Budget votes	Statistics South Africa
Human Capital	Gross enrolment ratio (secondary)	WorldBank and United Nations Development Programme (UNDP)
Natural Capital	Gross Domestic Product	Statistics South Africa
Social Cohesion	Social Assistance Expenditure data	South African Reserve Bank

Gross Domestic Product (GDP): In order to measure the variable, natural capital, the country's GDP will be used as a proxy. It measures the total value of goods

produced and services provided in a country in a particular year. The World Bank releases annual figures and in the recent released publication of 217 countries, South Africa ranked 33rd (World Development Indicators database, World Bank, 22 July 2016). GDP (current US\$) for 2015 was valued at 314,571,945,857.40 current US\$.

Gross Domestic Product per capita: Gross Domestic Product is defined by the World Bank as “.....the sum of gross value added by all producers in the economy plus all taxes minus the subsidies not included in the value of the product.” Deductions for depreciation are not effected before the calculation is made. Whereas the GDP per capita refers to GDP that is divided by the size of the population at midyear. To determine the natural capital we will apply the GDP per capita for the post 1994 era.

Accessed on: Monday, 06 February 2017. Source: World Bank. Original data: <http://www.data.worldbank.org/data-catalog/world-development-indicators>

The primary source of the data is the World Bank which collects development indicators, compiled from officially-recognised international sources. It presents the most current and accurate global development data available and includes national, regional and global estimates.

Human Capital has been measured using Gross Enrolment ratio from the WorldBank, we used the secondary education index for both sexes. It is calculated per enrolment grade i.e. the number of actual students enrolled divided by the number potential students and is then expressed as a percentage.

The United Nations Development Programme (UNDP) uses this ratio in its measurement of the Human Development Index. This index looks at three criteria; state of life expectancy, education, and per capita income indicators, which are used to rank countries into four tiers of human development. Human Development Report (2015). One hundred and ninety (190) countries were used to calculate the index, representing 98% of the world population. South Africa’s rank of 117 makes it a Medium Human Development country.

Social Cohesion has used the social assistance expenditure statistics available through the South African Reserve Bank as a proxy for social cohesion. In line with Dickes micro based index of social cohesion which include people’s well being,

economic growth, education, health and demographic characteristics and job market, the closest proxy that affects these attributes is the social assistance expenditure by national government and this includes the State Old Age Grant, War Veterans' Grant, Maintenance Grant, Care Dependency Grant, Foster Child Grant and Grant-in-Aid. This will be tracked over a 20 year period from 1995.

To measure *Event spend* we will use National Treasury Budget Allocation data for arts and culture, religion, sports and recreation as published by Statistics SA.

3. 6. Model Specification Using an Error Correction Model (ECM)

The study intends to answer one cardinal question derived from the research questions above:

What is the effect of event spend, natural capital, human capital and social cohesion on economic development? This study specifies an ordinary least squares regression of this type:

$$Y = \alpha + \beta_1 \text{Event spend} + \beta_2 \text{natural capital} + \beta_3 \text{human capital} + \beta_4 \text{social cohesion} + \varepsilon \quad (1)$$

ECM estimates the speed at which a dependent variable Y returns to equilibrium after a change in an independent variable X. The basic structure of an ECM is as follows:

$$\Delta Y_t = a + b\Delta X_{t-1} + b(\text{EC})_{t-1} + e_t \quad (2)$$

Where EC is the error correction component of the model, and measures the speed at which prior deviations from equilibrium are correlated, and e_t measures the error term (Brooks, 2008). In the Engle and Granger Two-Step Method the EC component is derived from cointegrated time series (Z).

$$\Delta Y_t = b_0 \Delta X_{t-1} - b_1 Z_{t-1} \quad (3)$$

b_0 captures the short term effects of X in the prior period on Y in the current period. b_1 captures the rate at which the system Y adjusts to the equilibrium state after a shock. In other words, it captures the speed of error correction.

To prevent the use of non-stationary data Unit Root test (Augmented-Dickey-Fuller (ADF) test was carried out to test for stationarity of the variables in the equation.

3.7. Ethical Issues

Literature raises challenges of obtaining consent by secondary researchers when utilising secondary data for studies unrelated to the primary reason for which the data was collected. The need to trace and get informed consent is debated and conclusion is that it is unlikely that there is a need to solicit informed consent at this stage if the participants are adequately protected and informed consent was attained at the initial stage of the primary study. A balance is therefore suggested to protect the sources and also to ensure that research is conducted without hindrance; guidance is that sources should remain anonymous, pseudonyms are used, ensure that unedited data is only retained within the research team and by creation of anonymisation logs of replacements and separate them from unedited data source.

3.8. Validity and reliability issues

Validity refers to whether the test measures what we think it is measuring whereas reliability refers to the consistency of the test or measure. If the test is reliable we expect to get the same result repeatedly whereas when the test or measure is valid it will produce results that are accurately reflecting what is being measured all the time. Therefore a precise and exact result will attain if the data is valid resulting in proper and correct results or conclusions. We will look for internal validity, external validity, construct validity, statistical conclusion validity and type one and type two error validity. These are as a result in the challenges related to:

- Insufficient data collected for the conclusion to be valid
- Test or measure done with too few measurement variables
- Too much variation in data or outliers in data
- Samples selected were wrong
- Inaccurate measurement method taken for analysis

3.9. Concluding remarks

The study uses Error Correction modelling (ECR) to determine the interrelatedness of event spend, natural capital, human capital and economic development. The study looks at a time series model over a 20 year period using a 100 data points. Unit root test was used to ensure that the variables are stationary in level or at difference (first, second or third). Each series may not be stationary but may have a common thread therefore cointegrated. The unit root was measured using the Augmented Dickey-Fuller test (ADF). Stationary data is expected to have an ADF value that is greater than the Critical value at 1% or 5% level. To confirm whether the null hypothesis for non stationarity can be rejected at level or at difference. A p-value 0.01 gives more confidence than a p-value of 0.05 but both are significant. Least Squares was used to confirm cointegration.

R-squared was used to determine the variance explained by the variables in the model. The direction of the relationship was determined by the positive or negative sign of the beta coefficient of the regression output.

In conclusion, the developed model will confirm the effect of independent variables on economic development and further determine the strength and direction of the relationship. This model may determine prioritization of budgets in the future between spending on major events as compared to focusing on service delivery needs of communities and social cohesion.

Chapter 4: Findings

4.1. Introduction

The study looks at the interrelatedness between event spend, human capital, natural capital, social cohesion and economic development. The objective of the study is to develop a model that will guide policymakers in decision making when resources are allocated to towards major events. The four hypotheses predicted to inform the research question as stated in chapters two and three are:

H1: Event spend influences economic development

H2: Natural capital influences economic development

H3: Human capital influences economic development

H4: Social cohesion influences economic development

Based on the study findings further research studies could be directed at identifying levers that if invested in, among the independent variables being measured, could significantly impact on economic development or on another variable. This chapter will state the data used, sources of the data and statistical information of each variable. Each variable would be tested for stationarity of the data. The null hypothesis would then be confirmed or rejected. The causal relationship and direction would also be confirmed or rejected.

4.2. Data description and descriptive statistics of study variables

As indicated in chapter 3, economic development was measured using the number of jobs as a result of tourism (tourism employment index), event spend used arts and culture, religion, sports and recreation budget vote expenditure figures. Natural capital used the Gross Domestic Product per capita data as a proxy whereas human capital utilised gross enrolment ratio for secondary education as a proxy and social cohesion used social expenditure data. The results are indicated on table 6 below:

TABLE 6: DESCRIPTIVE STATISTICS OF THE VARIABLES OF THE STUDY

Descriptive Statistics	Economic Development (No. of jobs)	Event Spend (Rm)	Natural Capital (R)	Human capital (enrolment ratio)%	Social Cohesion (Rbn)
Mean	740791.7	1.59E+09	37163.93	88.24763	72457.95
Median	650988.5	1.21E+09	33110.64	89.20447	61016.50
Maximum	1061169.	5.39E+09	70313.52	93.80900	170422.00
Minimum	553712.0	3.40E+08	14413.85	80.00000	15781.00
Bservations	20	20	20	20	20

Event spend results indicate that the minimum amount spent was R340 176 000, which according to National Treasury records was spent in the 1995/1996 financial year on Arts, Culture, Religion and Sports vote. The maximum amount spent on this variable was R5 387 000 000. This spend was achieved in the 2014/2015 financial year. Obvious in the figures is that there has been an exponential growth in the amount spent over the last 20 years and peaks can be identified in certain years. The peaks can be closely linked to the years when major events were hosted by the country, as an example, the FIFA world Cup in 2010, the expenditure moved from R1.1bn in the 2005/2006 to R2.4bn in the 2010/2011 financial year as a result of additional funds towards the event. Table 4 in Chapter 2 identify all major events hosted during the 20 year period.

Natural Capital as measured by looking at the GDP per capita, indicates that South African GDP adjusted by the Purchasing Power Parity for the whole population is 70% of the world's average. The minimum was in R14 413.85 in 1995 and the maximum of R70 313.52 was reached in 2014 suggesting a growing economy.

Human capital was measured with gross enrolment ratio for secondary education and the results indicate that in 1995, 80 percent of the pupils attained secondary education compared to 93.8% in 2015 an increase of only 13.8% over a period of 20

years. This is in contrast to a growing economy as shown by the trend of natural capital, the growing economy has not impacted greatly on improving secondary education attainment.

Social cohesion was measured using social assistance expenditure and the minimum spend per year was in the 1995 period with only R15.7bn spent on 2.9 million of the population, 7.9% of the budget at the time and a maximum spend was achieved in the 2014/2015 period with R170.4bn for over 15 million people and 10.6% of budget expenditure.

Economic development was measured using tourism jobs developed over 20 years and indicates that the minimum of 553 712 were achieved in 2006, this may be confirmed by a financial recession experienced in the period and poor tourism numbers visiting South Africa resulting in fewer jobs created. The maximum jobs were 1 061 169 in 2005 prior to the financial recession period. In the paper "The Great Recession and its Impact on Africa: Focus on Ghana and South Africa", indicates how the 2007 recession saw food and fuel prices become exorbitant and Africa's export produce was no longer in demand and a fall in FDI resulted.

4.3. Unit Root test

The results of the Augmented Dickey-Fuller (ADF) test for unit root for the variables are listed below. This test is used to test for the stationarity of the data. The ADF tests the t-value against the critical values. If stationary the ADF is greater than the critical values at 1% or 5%. The null hypothesis is that the exogenous variables have a unit root and is non stationary -5. The rejection of the null hypothesis for ADF test is based on the Mackimom (1996) critical values and p-values 5%.

Null Hypothesis: ECONOMIC DEVELOPMENT has a unit root

TABLE 7: UNIT ROOT TEST

Variable	In level series		1 st difference series		2 nd difference series	
	ADF	P value	ADF	P value	ADF	P value
Economic Development	-1.941	0.0691	-4.686	0.0002	-5.258235	0.0002
Event Spend	3.282	0.0059	-4.247	0.0006	-4.648746	0.0005
Natural Capital	4.513	0.0003	-2.007	0.0619	-5.8207	0.0000
Human Capital	0.111	0.9135	-3.960	0.0011	-5.3845	0.0001
Social Cohesion	4.4544	0.0003	-2.007	0.0619	-3.7879	0.0068

The results in Table 7 show that the null hypothesis of unit root can be rejected for event spend, natural capital and social cohesion in the in level. In other words in level series for these variables yielded stationary variables at in level. ($p < 0.005$). At first difference economic development, event spend and human capital variables were stationary ($p < 0.005$). At second difference all variables were stationary ($p < 0.005$). All the variables are stationary at second difference and the ADF is also negative indicating that they all have a unit root.

4.4. Testing Hypothesis 1: Event spend influences economic development

TABLE 8: TESTING HYPOTHESIS 1

Dependent Variable: ECONOMIC_DEVELOPMENT__TO
 Method: Least Squares
 Date: 04/03/17 Time: 21:22
 Sample (adjusted): 1995 2014
 Included observations: 20 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EVENT_SPEND	0.000248	5.86E-05	4.239031	0.0004
R-squared	-10.298538	Mean dependent var		740791.7
Adjusted R-squared	-10.298538	S.D. dependent var		165915.9
S.E. of regression	557698.0	Akaike info criterion		29.34973
Sum squared resid	5.91E+12	Schwarz criterion		29.39952
Log likelihood	-292.4973	Hannan-Quinn criter.		29.35945
Durbin-Watson stat	0.128371			

95% confident that the hypothesis is valid with a $p < 0.0005$. The Least Squares in a regression model are used to determine the causal relationship and the strength of

the relationship. R-Squared is used to determine the relationship, the stronger the R-Squared the stronger the relationship. (a scale from 0-100). The +/- sign indicates the direction of the relationship. The event spend relationship to economic development is weak at R-Squared of -10.298538 and a similar adjusted R-Squared.

4.5 Testing Hypothesis 2: Natural capital influences economic development

TABLE 9: TESTING HYPOTHESIS 2

Dependent Variable: ECONOMIC_DEVELOPMENT__TO
 Method: Least Squares
 Date: 04/17/17 Time: 13:16
 Sample (adjusted): 1995 2014
 Included observations: 20 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NATURAL_CAPITAL_GDP_PER_	0.156345	0.022226	7.034418	0.0000
R-squared	-5.099322	Mean dependent var		740791.7
Adjusted R-squared	-5.099322	S.D. dependent var		165915.9
S.E. of regression	409759.2	Akaike info criterion		28.73323
Sum squared resid	3.19E+12	Schwarz criterion		28.78302
Log likelihood	-286.3323	Hannan-Quinn criter.		28.74295
Durbin-Watson stat	0.115077			

99% confidence of the hypothesis with $p < 0.0001$. The R-Squared is weak as well and shows a negative direction.

4.6 Testing Hypothesis 3: Human capital influences economic development

TABLE 10: TESTING HYPOTHESIS 3

Dependent Variable: ECONOMIC_DEVELOPMENT__TO
 Method: Least Squares
 Date: 04/22/17 Time: 15:47
 Sample (adjusted): 1995 2014
 Included observations: 20 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HUMAN_CAPITAL_GROSS_ENRO	8374.892	430.8959	19.43600	0.0000
R-squared	-0.052783	Mean dependent var		740791.7
Adjusted R-squared	-0.052783	S.D. dependent var		165915.9
S.E. of regression	170238.3	Akaike info criterion		26.97649
Sum squared resid	5.51E+11	Schwarz criterion		27.02628
Log likelihood	-268.7649	Hannan-Quinn criter.		26.98621
Durbin-Watson stat	0.582392			

99% confident < 0.0001 but R-Squared is less than 1 indicating no relationship of human capital to economic development.

4.7 Testing Hypothesis 4: Social cohesion influences economic development

TABLE 11: TESTING HYPOTHESIS 4

Dependent Variable: ECONOMIC_DEVELOPMENT__TO
 Method: Least Squares
 Date: 04/17/17 Time: 13:41
 Sample (adjusted): 1995 2014
 Included observations: 20 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SOCIAL_EXPENDITURE_DATA	6.706480	1.271325	5.275187	0.0000
R-squared	-7.919954	Mean dependent var		740791.7
Adjusted R-squared	-7.919954	S.D. dependent var		165915.9
S.E. of regression	495529.2	Akaike info criterion		29.11335
Sum squared resid	4.67E+12	Schwarz criterion		29.16313
Log likelihood	-290.1335	Hannan-Quinn criter.		29.12307
Durbin-Watson stat	0.090671			

99% confident that the hypothesis is valid with a $p < 0.0001$ but the R-Squared is low (-7.919954) indicating a weak relationship between social cohesion and economic development.

4.8 The simultaneous effect of all variables on economic development

TABLE 12: TESTING THE SIMULTANEOUS EFFECT OF ALL INDEPENDENT VARIABLES ON ECONOMIC DEVELOPMENT

Dependent Variable: ECONOMIC_DEVELOPMENT__TO
 Method: Least Squares
 Date: 04/17/17 Time: 13:49
 Sample (adjusted): 1995 2014
 Included observations: 20 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EVENT_SPEND	7.26E-05	6.19E-05	1.172866	0.2580
NATURAL_CAPITAL_GDP_PER_	0.158222	0.241511	0.655131	0.5217
HUMAN_CAPITAL_GROSS_ENRO	0.082196	0.030806	2.668181	0.0168
SOCIAL_EXPENDITURE_DATA	-9.480658	9.412278	-1.007265	0.3288
R-squared	0.290993	Mean dependent var		740791.7
Adjusted R-squared	0.158054	S.D. dependent var		165915.9
S.E. of regression	152240.5	Akaike info criterion		26.88117
Sum squared resid	3.71E+11	Schwarz criterion		27.08031
Log likelihood	-264.8117	Hannan-Quinn criter.		26.92004
Durbin-Watson stat	0.863518			

Estimation Equation:

=====

$$\text{ECONOMIC_DEVELOPMENT} = C(1)*\text{EVENT_SPEND} + C(2)*\text{NATURAL_CAPITAL} + C(3)*\text{HUMAN_CAPITAL} + C(4)*\text{SOCIAL_COHESION}$$

Substituted Coefficients:

=====

$$\text{ECONOMIC_DEVELOPMENT} = 7.25994682049e-05*\text{EVENT_SPEND} + 0.158221546222*\text{NATURAL_CAPITAL} + 0.0821958485098*\text{HUMAN_CAPITAL} - 9.4806576164*\text{SOCIAL_COHESION}$$

Pairwise Granger Causality Tests

Date: 04/17/17 Time: 13:55

Sample: 1995 2015

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
EVENT_SPEND does not Granger Cause ECONOMIC_DEVELOPMENT__TO ECONOMIC_DEVELOPMENT__TO does not Granger Cause EVENT_SPEND	18	0.65626 0.48730	0.5352 0.6251
NATURAL_CAPITAL_GDP_PER_ does not Granger Cause ECONOMIC_DEVELOPMENT__TO ECONOMIC_DEVELOPMENT__TO does not Granger Cause NATURAL_CAPITAL_GDP_PER_	18	0.89738 3.67794	0.4314 0.0542
HUMAN_CAPITAL_GROSS_ENRO does not Granger Cause ECONOMIC_DEVELOPMENT__TO ECONOMIC_DEVELOPMENT__TO does not Granger Cause HUMAN_CAPITAL_GROSS_ENRO	18	0.29969 0.17008	0.7460 0.8454
SOCIAL_EXPENDITURE_DATA does not Granger Cause ECONOMIC_DEVELOPMENT__TO ECONOMIC_DEVELOPMENT__TO does not Granger Cause SOCIAL_EXPENDITURE_DATA	18	2.94788 0.44674	0.0880 0.6492
NATURAL_CAPITAL_GDP_PER_ does not Granger Cause EVENT_SPEND EVENT_SPEND does not Granger Cause NATURAL_CAPITAL_GDP_PER_	18	0.85655 0.47128	0.4473 0.6345
HUMAN_CAPITAL_GROSS_ENRO does not Granger Cause EVENT_SPEND EVENT_SPEND does not Granger Cause HUMAN_CAPITAL_GROSS_ENRO	18	0.02934 2.04610	0.9712 0.1688
SOCIAL_EXPENDITURE_DATA does not Granger Cause EVENT_SPEND EVENT_SPEND does not Granger Cause SOCIAL_EXPENDITURE_DATA	18	0.78542 0.67315	0.4764 0.5270
HUMAN_CAPITAL_GROSS_ENRO does not Granger Cause NATURAL_CAPITAL_GDP_PER_ NATURAL_CAPITAL_GDP_PER_ does not Granger Cause HUMAN_CAPITAL_GROSS_ENRO	18	1.83325 2.06871	0.1989 0.1660
SOCIAL_EXPENDITURE_DATA does not Granger Cause NATURAL_CAPITAL_GDP_PER_ NATURAL_CAPITAL_GDP_PER_ does not Granger Cause SOCIAL_EXPENDITURE_DATA	18	0.49388 12.7583	0.6213 0.0009
SOCIAL_EXPENDITURE_DATA does not Granger Cause HUMAN_CAPITAL_GROSS_ENRO HUMAN_CAPITAL_GROSS_ENRO does not Granger Cause SOCIAL_EXPENDITURE_DATA	18	1.98237 0.79712	0.1772 0.4715

Based on the probability values reported in the above tables ($p > 5\%$) for all variables the hypothesis that economic development does not Granger cause event

spend, nor natural capital, human capital or the opposite cannot be rejected therefore no causality runs for economic development, event spend, human capital and natural capital and vice versa. However, the hypothesis that natural capital does not Granger Cause social cohesion has been rejected.

4.9. Conclusion

The results show that there is a positive and statistically significant relationship between natural capital and social cohesion. The causal relationship between event spend and economic development or vice versa could not be established neither could the causal relationship between human capital and economic development or vice versa. No causal relationship could be established between natural capital and economic development or vice versa.

Chapter 5. Discussion and Conclusion

5.1. Introduction

The study looked at the interrelatedness of event spend, natural capital, human capital, social cohesion and economic development. The research question that was crafted out of the four predicted hypotheses is as follows: *What is the effect of event spend, natural capital, human capital and social cohesion on economic development?* The study model is therefore resultant on this relationship.

The study's theoretical framework is the political geography theory, loosely defined as the interaction between the physical space, people and natural habitat with people's aspirations and day to day challenges. Painter and Jeffrey (2017) define it as a study of the spatial dimensions of politics. It covers human geography especially territory, the state, power and borders and the politics refers to institutions of society - governmental and non-governmental - that influence or impact on geography. In the nineteenth and twentieth century political geography was characterised by racism, imperialism and war. The 1950s were generally characterised by a lull followed by radical forms of geography that emerged due to political and cultural challenges in the 1960s resulting in feminism, sexism and Marxism among other forms of "radical geography" according to Castree, Kitchin and Rogers (2013). In recent times political geography is influenced by modern day challenges such as climate change, food security and energy challenges.

Geopolitik defined this philosophy in the 1940s with the rise of the rightwing forces in Germany to assert the power of the state and authoritarianism. Following the second world war the French also modelled their political geography on developing and defining states, boundaries and elections models of governance. Regionalism was also popular with the French geographers. Harley (1988,1992) asserts that maps are associated with authority and boundaries. New challenges emerged within the boundaries and territories, problems of "self interest".

The development of boundaries was based on a balance of security and opportunity basis. Social norms and values were of secondary concern. Sovereign states

emerged out of political considerations and lacked rigour of consultation and explanation (Archer and Shelley 1985:16-17). Henriksen (1980), Murphy (1988) indicate that in the 1980s newer thinking expanding political geography beyond traditional state power and boundaries into other areas by using sophisticated spatial-analytical methods to address diplomatic relationships, international and civil wars and other levers of state power.

In the current environment political geography deals with local issues and how politics, power and policies affect territories, land and people. The mobilisation of communities for bidding and hosting of major events requires both politics and geography aligned in order for the populace to embrace and host a successful event. The buy-in of the population to invest in infrastructure, delay some service delivery imperatives and believe that the benefits arising out of the event will benefit the whole population with jobs and the benefits of the economy trickling to all sectors including the informal economy. This scenario requires strong pillars of society to engage with state power, policies to guarantee that benefits accrue to the population and credible governance structure to administer the process.

The bidding process commits the people of a city or country to spending towards infrastructure, delivery of the event and in return promises a legacy programme, economic development, human capital and social development to accrue to the community. The study will look at whether the jobs created result in economic development, the money spent trickles down to benefit the local economy and whether human capital has benefited through the attainment of secondary education as a spin off of economic development. We have hypothesised that socially cohesive communities result as a consequence of the investment made to major events and tourism.

Natural capital is the natural wealth and beauty of the land and cities use their uniqueness to attract events and craft their tourism programmes around this feature. The weather, climate, natural beauty, culture and scenic views are some of the attributes that are linked to this variable. Political geography therefore overlays the people, the land with its attributes and power, policies and governance.

Storey (2009) identifies some of the major themes in political geography as identity and citizenship, electoral geography, environment, territory and territoriality, state, geopolitics and nationhood.

Literature review revealed that event spend has not been quantified and no model exists to guide policymakers on which events to invest in and to determine the rate of return from the investment made. The economic studies done to justify hosting the event are usually exaggerated and are not able to predict with accuracy how the economy will benefit, generic principles related to sizes of families and spending patterns are usually used in a similar manner for all events irrespective of the vast differences in events and audiences attracted with differences in spending power.

Literature could not reveal how the local economy can be protected from international sponsors who impose restrictive conditions of trade to local communities thus locking them out from benefitting from major events.

Social cohesion definition and measurement is vast and complex and sometimes contradictory. Further study to refine and develop models of measure is necessary. Another gap identified is that no study could be identified that had followed up four independent variables over a 20 year period and attempted to develop an econometric model on economic development.

5.2. Discussion of findings

Each chapter of the study critically laid the basis for the development of a model to evaluate the interrelatedness between event spent, natural capital, human capital, social cohesion and economic development. The literature review chapter identified the theoretical framework that is the backbone of the study. It also identified that two schools of thought exist with contradictory views on whether major events contribute to economic development or job creation.

The dominant view identified is that hosting of major events is a catalyst for capital development but no long-term economic development could be attributed to major events that had previously been hosted except for legacy projects in London which

contributed to vitalising dilapidated areas of the city and Athens which focussed on cultural precincts and revitalising historical sights following the hosting of the Olympic Games and a profitable Atlanta Olympic Games which is now the gold standard for hosting successful games.

Chapter 3 focussed on each variable, the data sources and how variables are measured. The model was specified and methodology used to look at time series data outlined. Error correction method was outlined in detail including its uses and how the results are tested for integrity. The focus on reliability and validity of the data through identification of ethical issues and limitations of the study was also emphasised.

The focus of chapter 4 has been on the findings of the study. Chapter four also aggregated all the variables and looked at the relationship between independent variables to the dependent variable

5.2.1. Hypothesis 1: Event spend influences economic development

The study results indicate that event spend does not influence economic development. The study used national treasury arts and culture, religion and sports and recreation expenditure vote to identify amount spent towards events. Literature had indicated two points of view one suggesting that no evidence exists to indicate that event spend influences economic development whereas other authors indicated that pre event spend on major capital infrastructure had an impact on economic development but this was short term and not sustained.

The 2010 FIFA World Cup in South Africa is a case in point where pre-event major infrastructure was developed and other major developments to the airports and road infrastructure contribute to job creation during the building stage of the infrastructure but this did not result in permanent jobs post the building stage. It can therefore be concluded that event spend should be targeted but not aimed at economic development but at catalysing major infrastructure revitalisation.

Literature review confirmed this factor, looking at Ex-post econometric studies of World Cups, Baade and Matheson (2004) had not found any positive short term

economic effects for the World Cup 1994 in the USA, other authors quoted in the same publication Hagn and Maennig (2008a) could not find any economic benefits for 2006 World Cup in Germany. Hagn and Maennig (2008b) illustrates that neither shortterm nor long-term labour market effects were found for World Cup 1974 in Germany. Literature also quotes the findings of Szymanski (2002), who had looked at the world's 20 largest economies over the last 30 years, he concluded that the growth of these countries was significantly lower in World Cup years.

The only author that has been quoted to find that World Cups have a positive effect is Sterken (2006) but concedes that the effect is quite limited. The result of this study in relation to event spend influencing economic development is therefore consistent with literature findings.

5.2.2. Hypothesis 2: Natural capital influences economic development

The study uses GDP as a proxy for natural capital, research indicated that is diverse and includes both flora, fauna, mineral resources, physical attributes and all these influence the economy of the region. South Africa also has a distinctive climate and culture and these are also used to attract events to South Africa, these same characteristics are used to attract investors to the country. Post 1994 a lot of investors came to the country growing the economy of the country and pushing the GDP per capita growth from R14 313.82 in 1995 to R70 313.52 in 2005.

The Trading Economics an Online website focusing on economic trends that uses the Statistics South Africa information, recently wrote in its notes on GDP Growth for South Africa the following reasons as pertinent issues affecting the economy “ *South Africa is the second largest economy in Africa. The country is rich in natural resources and is a leading producer of platinum, gold, chromium and iron. From 2002 to 2008, South Africa grew at an average of 4.5 percent year-on-year, its fastest expansion since the establishment of democracy in 1994. However, in recent years, successive governments have failed to address structural problems such as the widening gap between rich and poor, low-skilled labour force, high unemployment rate, deteriorating infrastructure, high corruption and crime rates. As a result, since the recession in 2008, South Africa's growth has been sluggish and below African average.*”

Research indicates that natural capital alone cannot be relied on as a driver of economic development as it is influenced by other factors as well like recession as indicated in literature that the 2007-2009 period was affected by a global recession. During such periods certain countries suffer more than others resulting in unequal growth. South Africa as a developing country is affected severely by this negative impact during hard financial times and capital moves to safe havens or areas of higher growth. The dependency of the country on a mineral resource based economy, heavily dependent on exchange rates also influences the GDP of the country. The results of the study therefore could not reject the null hypothesis *that natural capital does not Granger cause economic development.*

5.2.3. Hypothesis 3: Human capital influences economic development

Human capital was measured using gross ratio for secondary education for both males and females, a 20 year statistics was identified using the United Nations Development Programme statistics and tools to calculate the variable. From the information available a 13.8 percent increase has occurred between 1995 and 2015 in the numbers of pupils registered who had attained secondary education. This is despite the exponential spend on events over the same period of over 50%. This indicates that there has been little impact on human capital by event spend and the economic development as indicated by jobs created over the period. This result is confirmed in an article published in the Mail and Guardian, "Matric is failing SA's lost children" on the 10th of January 2014 by Nic Spaul, which analysed the 2013 matriculation results and the 78.2% pass rate attained, *"at the matric class of 2013, there were 562 112 full-time candidates, of whom 439 779 passed, yielding a matric pass rate of 78.2%. But how many pupils were there to begin with? If we look at the 2013 grade 12 cohort, we see that there were as many as 1 111 858 pupils in grade two (in 2003), 1 094 189 in grade 10 (in 2011) – but only 562 112 in grade 12 (in 2013). What happened to the other 549 746 that never made it to matric? Most dropped out in grade 10 and 11."* This statistic indicates that secondary education attainment is not in line with resources that have been pumped in but exogenous factors may be at play which require further research. If the scenario of 2013 as outlined by the Mail and Guardian is true for all other years than research needs to understand why at least 550 000 learners are lost in the 12 years of school in South

Africa. It is still possible that if another proxy had been chosen results could have been different.

5.2.4. Hypothesis 4: Social cohesion influences economic development

Social cohesion used social assistance expenditure as a proxy and the results indicate that social cohesion does not influence economic development. The increase in economic development had no influence on social cohesion but evidence exists that natural capital influences social cohesion with a $p=0.0009$. This means that natural capital is related to social cohesion. In our study we asserted that if we leverage on the natural resources, climate and culture of the area, it has a positive influence in how the community rallies around an event and owns the event. If we exploit the natural resources as defined under natural capital we will have more cohesive and inclusive communities.

If we were to look at Festinger (1950, p. 274) and his definition of social cohesion as “the resultant of all forces acting on the members of a group to remain in the group,” we would understand that for the community to be cohesive individual attitudes towards the group have to be taken care of by fulfilling their individual needs. They must want to belong to the group because it benefits them to be part of it. Do major events embrace communities where they are held? Is there local ownership by hosting communities? The FIFA world cup scenario suggests otherwise; where communities invested into bread and breakfast establishments with the hope that they would enjoy the economic benefits of the event but the event organisers preferred the more established hotels and guesthouses as official accommodation facilities. By doing so they alienated the hosting communities. (Kolo 2011: 22-43)

Culture and sports were shown in 1995 during the Rugby World Cup that “it has the power to change the world” (Mandela 2000), this was later proven during the FIFA World Cup that inspite of the challenges that were identified e.g. crime, recession resulting in low visitors, but communities rallied around the spectacle that was hosted again proving that sport and culture have the power to unite the country.

It therefore will assist policymakers to invest more on natural capital that is natural environment, culture, beaches, natural parks and climate. Friedkin(2004)

acknowledges that social cohesion is complex and major dimensions of it occupy many theoretical dimensions sometimes antecedent, intervening and even as an outcome variable. In our Null hypothesis only one scenario rejected the null hypothesis that natural capital does not Granger cause social cohesion and not vice versa. This suggests that the relationship is one directional from natural capital influencing social cohesion.

1.8.5.3. Implications for future research

The Null hypothesis: Natural capital does not Granger cause Social cohesion is rejected with a p-value = 0.0009. The time series is stationary and has a unit root. Future research will aim to look at defining social cohesion further and also identify factors contributing to social cohesion. In literature review we indicated that the HDSE(2001) has identified rights that will limit social exclusion in society and promote social cohesion and these are: access to employment, access to housing, access to social protection, access to health and access to education. The results affirm what was found in literature and summed up in a study by Dayton-Johnson (2003) that concludes that social cohesion determines how an economy pulls together.

5.4. Contribution to Knowledge

A number of studies have not modelled event spend and economic development in the manner it has been done. As indicated in literature review chapter, the following studies were quoted as an example of other variables used as a measure of event spend; Coates and Humphreys (1999) used real per capita income growth whereas Mauricio Ortiz (2002:6) used available employees, Baade and Saunderson(1997) looked at job creation as a result of professional sport in a city.

This is the first study from literature reviewed that develops a time series model and looks at a 20 year period and a trend of 20 years for six tourism and economic variables. This constitutes a methodological contribution.

The study found that social cohesion is the strongest predictor of economic development, studies sited in literature have not addressed this important finding,

further studies can interrogate this relationship between social cohesion and economic development. It intuitively makes sense that gross enrolment ratio for secondary education vs. event spend trickle-down effect have not been positively affirmed as a outcome of economic development, hypotheses not confirmed. It is always assumed that the economic impact of hosting major events or of tourism is that economic benefits will trickle down to all economic participants including the informal sector (value chain trickle effect), this has not been found in this study.

5.5. Implications of the Findings to Practice

The model developed in this study will contribute towards policy formulation for cities and countries that intend to host mega events in the future. It is envisaged that South Africa will continue to host mega events as an enabler to stimulate economic development. The National Development Plan 2030 has identified tourism as one of the growth pillars for the economy of South Africa. Tourism uses among other attributes culture and heritage, historical environment and artefacts, climate, the natural habitat and sport in order to attract local and international visitors to the country.

The model will be a scientific tool at the disposal of policymakers to assist in the allocation of resources. Previous studies have developed models based on one variable but none have looked at the combination of the four identified variables. Most writers have looked at event spend using employment figures as a proxy for economic development while others have looked at human capital and economic development. The recommendations to policymakers include a clear hosting strategy for cities and national government with clearly identifiable objectives. Social cohesion should be elevated in the budgeting framework and programmes developed to streamline it in all major or catalytic projects. The role of government in hosting and funding of events should be revisited as well and, in line with literature, should identify the type of events public funds should be invested in to catalyse development. Following the same line of thinking government should consider coming in as a 'welfare investor' on major infrastructure or events that are key to social cohesion.

5.6. Study Limitations and Avenues for Further Research

Measurements used for social cohesion could be a limitation in that they only focus on social assistance expenditure whereas social cohesion, as the literature pointed out is a complex construct. Not only is it complex but it also has various determinants. For example, it is shaped or influenced by various variables such as inequality, social attributes and educational variables. The limitation is that these other indicators that capture social cohesion have not been included in this study. As such, findings of this study must be interpreted with caution. Further research will profit from interrogating social cohesion more deeper. It will benefit policy makers to understand the determinants and indicators of social cohesion.

In order to improve the robustness of the study a sensitivity analysis would have helped. Further research using alternate measures should be embarked upon. For example economic development could be measured using income growth instead of number of jobs in the tourism sector as used in this study. Social cohesion could be measured using inequality instead of social assistance expenditure. Sensitivity testing would indicate if the results remain the same under those conditions.

This study looked at an economic development model that includes four variables related to tourism, there are other variables that affect economic development related to tourism that could be modelled to gain further insight. For example; domestic visitor data, number of attractions are some of these variables. Be that as it may some variables do not have measures that capture them over time. There is dearth of tourism time series data to enable a modelling process followed in this study. Whereas Tucker (2006) recognised the limitations and bias of his model in a similar study, he also acknowledged that his study represents only the first step towards addressing the impact of the Olympic Games and called for a model of the “Olympic effect”. Likewise a refinement of model presented in this study is necessary in order to quantify the social cohesion impact on economic development.

South Africa was a pariah state prior to 1994 and was isolated from most global platforms as a result of apartheid policies. This therefore made it difficult to find data for the period prior to 1994 and also few major events took place in the country as a result of the cultural boycott against the country pre 1992. It is for this reason that the study tests four hypotheses using South African data covering the period 1994 – 2016. Although institutions had been setup post 1994, in reality the systems were only up and running post year 2000 therefore the availability of information for the whole period post 1994 has been a limitation.

References

- Allmers, S. and Maennig, W. 2009. Economic impacts of the FIFA Soccer World Cups in France 1998, Germany 2006, and outlook for South Africa 2010. *Eastern Economic Journal*, 35 (4): 500-519.
- Andranovich, G., Burbank, M. J. and Heying, C. H. 2001. Olympic Cities: Lessons Learned from Mega-Event Politics. *Journal of Urban Affairs*, 23 (2): 113-131.
- Archer, J.C. and Shelley, F.M. 1985. Theory and Methodology in Political Geography, pp. 11-40 in M. Pacione (editor), *Progress in Political Geography*. London: Croom Helm.
- Ashton, D. and Green, F. 1996. *Education, training and the global economy*. Cheltenham: Edward Elgar Publishing Limited.
- Baade, R.A., and Matheson, V.A. 2004b. Super Bowl or Super (hyper)Bowl:the economic impact of the Super Bowl on host communities. *College of the Holy Cross Working Paper 04-03*.
- Baade, R. A., Baumann, R. and Matheson, V. A. 2006. The Economic Consequences of Sports Strikes and Lockouts: Revisited. *College of the Holy Cross, Department of Economics, Faculty Research Series, Working Paper*, (06-04)
- Baade, R.A., and Saunderson, A.R. 1997. The employment effects of teams and sports facilities. *Sports, Jobs and Taxes: The Economic impact of sports teams and stadiums*. Washington DC Press. *The Brookings Institution Press*:92-118.
- Baloshenko, V. 2012. Does the winner really take it all:Assessing the impact of mega sport events on FDI flows of the hosting country.
- Barclay, J. 2009. PREDICTING THE COSTS AND BENEFITS OF MEGA-SPORTING EVENTS: MISJUDGEMENT OF OLYMPIC PROPORTIONS? *Economic Affairs*, 29 (2): 62-66.
- Berkman, L. F., Kawachi, I. and Glymour, M. M. 2014. *Social epidemiology*. Oxford University Press.
- Bohlmann, H. R. and van Heerden, J. H. 2005. The impact of hosting a major sport event on the South African economy. *Journal of Tourism*, 26 (4): 595-603.
- Briedenhann, J. 2011. Economic and tourism expectations of the 2010 FIFA World Cup—a resident perspective. *Journal of Sport & Tourism*, 16 (1): 5-32.
- Brooks, C. 2008. *Introductory econometrics for finance*. Cambridge, Cambridge University,
- Burnett, J. 2007. Britain's' civilising project': community cohesion and core values. *Policy & Politics*, 35 (2): 353-357.
- Busa, F., Min, Z., Jianzhong, W., Loscetales, V. G., Jian, C. and Bertone, T. 2011. Mega-Events as Catalysts for Urban Transformation. *Shanghai Manual—A Guide for Sustainable Urban Development in the 21st Century*: 1-36.
- Collier, P., Van Der Ploeg, R., Spence, M. and Venables, A. J. 2010. Managing resource revenues in developing economies. *IMF Staff Papers*, 57 (1): 84-118.
- Commission, N. P. 2012. National Development Plan 2030: Our future—make it work. *Presidency of South Africa, Pretoria*, 1
- Chanaron, J. J. 2014. Technology and economic impacts of mega-sports events: A key issue? Exploratory insights from literature. *Megatrend revista*, 11 (4): 9-30.

- Chidester, D., Dexter, P. and James, W. G. 2003. *What holds us together: social cohesion in South Africa*. HSRC Press.
- Cloete, A. 2014. Social cohesion and social capital: Possible implications for the common good. *Verbum et Ecclesia*, 35 (3): 1-6.
- Cloete, P., Kotze, F. and Groenewald, C. 2009. Concept paper on social cohesion/inclusion in local integrated development plans. *Final draft*,
- Cloud, D. 1998. *Control and consolation in American culture and politics: Rhetoric of therapy*. Sage.
- Cloud, D. L. 1992. The limits of interpretation: Ambivalence and the stereotype in Spenser: For Hire. *Critical Studies in Media Communication*, 9 (4): 311-324.
- Coates, D. 2012. Not-so-mega events. *International handbook on the economics of mega sporting events*: 401.
- Coates, D. and Humphreys, B. R. 1999. The growth effects of sports franchises,stadia and arenas. *J Policy Anal Manage* 18: 601-624.
- Coates, D. and Humphreys, B. R. 2006. Proximity benefits and voting on stadium and arena subsidies. *Journal of Urban Economics*, 59 (2): 285-299.
- Collier, P. 2010. The political economy of natural resources. *social research*, 77 (4): 1105-1132.
- Collier, P. and Hoeffler, A. 2007. Civil war. *Handbook of defense economics*, 2: 711-739.
- Collier, P., Van Der Ploeg, R., Spence, M. and Venables, A. J. 2010. Managing resource revenues in developing economies. *IMF Staff Papers*, 57 (1): 84-118.
- Commission, N. P. 2012. National Development Plan 2030: Our future–make it work. *Presidency of South Africa, Pretoria*, 1
- Co-operation, O. f. E. and Development. 2015. *OECD Economic Surveys: South Africa 2015*. Organisation for Economic Co-operation and Development.
- Dayton-Johnson, J. 2003. Social capital, social cohesion, community: A microeconomic analysis. *The economic implications of social cohesion*: 43-78.
- De Aragao, M. M. 2015. Economic impacts of the FIFA World Cup in developing countries. *Unpublished Honors thesis, Michigan University, Michigan*,
- Deery, M., Jago, L. and Fredline, L. 2004. Sport tourism or event tourism: are they one and the same? *Journal of Sport & Tourism*, 9 (3): 235-245.
- Dickes, P., Valentova, M. and Borsenberger, M. 2008. Social cohesion: Measurement based on the EVS micro data. *Statistica applicata*, 20 (2): 1-16.
- Du Plessis, S. and Maennig, W. 2011. The 2010 FIFA World Cup high-frequency data economics: Effects on international tourism and awareness for South Africa. *Development Southern Africa*, 28 (3): 349-365.
- Ferreira, S. L. and Boshoff, A. 2014. Post-2010 FIFA Soccer World Cup: oversupply and location of luxury hotel rooms in Cape Town. *Current Issues in Tourism*, 17 (2): 180-198.
- Festinger, L., Back, K.W., and Schachter, S. 1950. Social Pressures in informal groups: A study of Human Factors in Housing. Stanford University Press. 274.

- Fomica, S., and Uysal M. 1998. Market Segmentation of an International Cultural-Historical Event in Italy. *Journal of Travel Research*. Vol. 36(4)
- Fourie, J. and Santana-Gallego, M. 2011. The impact of mega-sport events on tourist arrivals. *Tourism Management*, 32 (6): 1364-1370.
- Friedkin, N. E. 2004. Social cohesion. *Annu. Rev. Sociol.*, 30: 409-425.
- Gammon, S. and Robinson, T. 2003. Sport and tourism: A conceptual framework.
- Gao, F., Li, M. and Nakamori, Y. 2002. Systems thinking on knowledge and its management: systems methodology for knowledge management. *Journal of Knowledge Management*, 6 (1): 7-17. Gibson, H. J. 1998. Active sport tourism: who participates? *Leisure studies*, 17 (2): 155-170.
- Gold, J. R. and Gold, M. M. 2008. Olympic cities: regeneration, city rebranding and changing urban agendas. *Geography compass*, 2 (1): 300-318.
- Gratton, C. and Preuss, H. 2008. Maximizing Olympic impacts by building up legacies. *The international journal of the history of sport*, 25 (14): 1922-1938.
- Hagn, F. and Maennig, W. 2008. Employment Effects of the Football World Cup 1974 in Germany. *Labour Economics*, 15(5): 1062-75.
- Harley, B. 1988. Silences and Secrecy: the hidden agenda of cartography in early modern Europe. *Imago Mundi*, 40:57-76.
- Hayes, G. and Karamichas, J. 2011. *Olympic Games, mega-events and civil societies: Globalization, environment, resistance*. Springer.
- Henriksen, T. 1980. Angola, Mozambique and the Soviet Union: Liberation and the Quest for influence., in Weinstein W (ed.) *Soviet and Chinese Aid to African Nations*. New York: Praeger.
- Hiller, H. H. 1995. Conventions as mega-events: A new model for convention-host city relationships. *Tourism Management*, 16 (5): 375-379.
- Hillmer, F. 2016. *Effective Sustainability Communication for Music Festivals and Other Mega-Events. Find Out how to Green the Crowd*. Anchor Academic Publishing.
- Horne, J. 2007. The four 'knowns' of sports mega-events. *Leisure studies*, 26 (1): 81-96.
- Horne, J. and Manzenreiter, W. 2006. An introduction to the sociology of sports mega-events¹. *The Sociological Review*, 54 (s2): 1-24.
- Jakobsen, J., Solberg, H. A., Halvorsen, T. and Jakobsen, T. G. 2013. Fool's gold: major sport events and foreign direct investment. *International journal of sport policy and politics*, 5 (3): 363-380.
- Jarvie, G. 2016. SPORT, THE 2014 COMMONWEALTH GAMES AND THE SCOTTISH REFERENDUM. *Routledge Handbook of Sport and Politics*,
- Johnson, D. J. 2010. A comparative study of the management and socio-economic impacts of sport tourism events in Durban and Cape Town. Cape Peninsula University of Technology.
- Johnson, D. J. 2010. A comparative study of the management and socio-economic impacts of sport tourism events in Durban and Cape Town. Cape Peninsula University of Technology.

- Jones, M., Jones, R., Woods, M., Whitehead, M., Dixon, D. and Hannah, M. 2014. *An introduction to political geography: space, place and politics*. Routledge.
- Kaspar, C. 1987. The Role and Impact of Mega-Events and Attractions on National and Regional Tourism Development; Introduction into the General Topic of the 37th AIEST Congress. In: *Proceedings of the 37th Congress of AIEST*. 11-12.
- Keim, M. 2003. *Nation Building at Play: Sport as a tool for social integration in Post-Apartheid South Africa*. Meyer & Meyer Verlag.
- Kitchin, R. and Tate, N. J. 2000. Conducting research into human geography. *Theory, methodology &*
- Knott, B., Swart, K. and Visser, S. 2015. The impact of sport mega-events on the quality of life for host city residents: reflections on the 2010 FIFA World Cup.
- Kolo, J. 2011. A Priori and a positivist view of FIFA 2010 World Cup in South Africa. *African Journal of Business and Economic Research*, 6 (1): 22-43.
- Koziol, L. 2014. The Myth of Executive Functioning: Missing Elements in Conceptualization: Missing elements in conceptualization, evaluation and assessment. Springer.
- Kotze, N. and Visser, G. 2008. Sport tourism: comparing participant profiles and impact of three one-day events in South Africa. *Africa Insight*, 38 (3): 61-72.
- Kwon, D.-B. 2009. Human capital and its measurement. In: *Proceedings of Proc. The 3rd OECD World Forum on Statistics, Knowledge and Policy*. 6-7.
- Lane, L. M., Wolf, J. F. and Woodard, C. 2003. Reassessing the human resource crisis in the public service, 1987-2002. *The American Review of Public Administration*, 33 (2): 123-145.
- Maennig, W. and Zimbalist, A. S. 2012. *International handbook on the economics of mega sporting events*. Edward Elgar Publishing.
- Maharaj, B., Sucheran, R. and Pillay, V. 2006. Durban—A tourism Mecca? Challenges of the post-apartheid era. In: *Proceedings of Urban forum*. Springer, 262-281.
- Mauricio, O. *Body and Spirit: Medicine and Literary Creation*. 2002. *Secretaria de Salud*.
- Matheson, V. 2006. Mega-Events: The effect of the world's biggest sporting events on local, regional, and national economies.
- Matheson, V.A., and Baade, R. A. (2004), MEGA-SPORTING EVENTS IN DEVELOPING NATIONS: PLAYING THE WAY TO PROSPERITY?. *South African Journal of Economics*, 72: 1085–1096.
- Milne, M. 2014. *Moving the goalposts: the transformation of television sport in the UK (1992-2014)*. University of Westminster.
- Morgan, B. 2007. Hosting the big sporting events. *SouthAfrica. info, The Official Gateway*. Available at www.southafrica.info,
- Msweli, P. 2011. *Writing a research proposal: Practical guidelines for business students*. Juta and Company Ltd.
- Müller, M. 2015. What makes an event a mega-event? Definitions and sizes. *Leisure Studies*, 34 (6): 627-642.
- Müller, M. 2015. What makes an event a mega-event? Definitions and sizes. *Leisure Studies*, 34 (6): 627-642.
- Municipality, E. 2013. *Integrated Development Plan (IDP) annual review 2013/2014*: EThekweni Municipality, Durban.

- Murphy, D. T. 1988. *The Heroic Earth: Geopolitical Thought in Weimar Germany, 1918-1933*. The Kent State University Press. Kent, Ohio and London, England.
- Ortiz, M. 2002. Do Professional Sports Franchises And Professional Sports Stadiums Have Any Effect On Employment In A City? Virginia Tech.
- Oxoby, R. 2009. Understanding social inclusion, social cohesion, and social capital. *International Journal of Social Economics*, 36 (12): 1133-1152.
- Pettinger, T. 2013. *Economics help*.
- Preston-Whyte, R. and Scott, D. 2007. Urban tourism in Durban. *Urban tourism in the developing world: The South African experience*: 254-264.
- Putnam, R. 2001. Social capital: Measurement and consequences. *Canadian Journal of Policy Research*, 2 (1): 41-51.
- Ramukumba, T., Mmbengwa, V., Mwamayi, K. and Groenewald, J. 2012. Analysis of local economic development (LED) initiated partnership and support services for emerging tourism entrepreneurs in George municipality, Western Cape Province, RSA. *Tourism Management Perspectives*, 2: 7-12.
- Randall, E. 2001. Health, Inequality and Social Exclusion. In: *The European Union and Health Policy*. Springer, 191-219.
- Ritchie, J. B. and Yangzhou, J. 1987. The role and impact of mega-events and attractions on national and regional tourism: a conceptual and methodological overview. In: *Proceedings of the 37th Congress of AIEST*. 17-57.
- Roche, M. 1994. Mega-Events and Urban Policy: *Annals of Tourism Research*. Vol. 21:1-19.
- Sala-i-Martin, X., Crotti, R., DI BATTISTA, A., HANOUIZ, M. D., GALVAN, C., GEIGER, T. and MARTI, G. 2015. Reaching Beyond the New Normal: Findings from the Global Competitiveness Index 2015–2016. *The Global Competitiveness Report 2015–2016*: 3-41.
- Siegfried, J. and Zimbalist, A. 2000. The economics of sports facilities and their communities. *The Journal of Economic Perspectives*, 14 (3): 95-114.
- Shuttleworth, M. 2008. Validity and reliability. Retrieved August, 6: 2013.
- Siegfried, J. and Zimbalist, A. 2006. Policy Forum: Economics of Sport: The Economic Impact of Sports Facilities, Teams and Mega-Events. *Australian Economic Review*, 39 (4): 420-427.
- Solberg, H. A. and Preuss, H. 2007. Major sport events and long-term tourism impacts. *Journal of sport Management*, 21 (2): 213-234.
- Spaul, N. 2014. Mail and Guardian. (Published 10 January 2014).
- Stanley, D. 2003. What do we know about social cohesion: The research perspective of the federal government's social cohesion research network. *Canadian Journal of Sociology/Cahiers canadiens de sociologie*: 5-17.
- Stats, S. 2008. Statistics South Africa. *Statistical release P0441*,
- Sterken, E. 2006. Economic Impact of Organizing Large Sporting Events: *International Handbook on the Economics of Mega Sporting Events*, ed. ... the World Plays Soccer. Brookings Institution Press.
- Storey, J. 2009. *Cultural Theory and Popular Culture: A Reader*. Pearson Longman.

Streb, M. and Druck, P. F. Economic development as a matter of political geography. *Estudios de Economia*, 34 (1): June 2007.

Swart, K. and Bob, U. 2004. Measuring the social impacts of events: Resident reactions to the North Sea Jazz Festival. In: *Proceedings of Proceedings of the 2005 IIPT (International Institute for Peace through Tourism) Africa Conference*. 1-5.

Szymanski, S. 2002. Collective selling of broadcast rights to sporting events: *International Sports Law Review*. 2(Feb): 3-7.

Szymanski, S. 2010. *The comparative economics of sport*. Palgrave Macmillan.

The Trading Economics. <https://www.tradingeconomics.com/south-africa/gdp-growth>

Tourism, D. 2015. *Welcome to the Official City of Durban Tourism Website*: Retrieved.

Tucker, J. A. 2006. *Regional Economic Voting: Russia, Poland, Hungary, Slovakia and the Czech Republic 1990-1999*. Princeton University.

Xiu, L. 2009. Managerial gender earnings gap in China. *Disponibile su* < <http://www.tammyschirle.org/LCERPA/>> [Data di accesso: 23/06/2015].

Streb, M. and Druck, P. F. Economic development as a matter of political geography. *Estudios de Economia*, 34 (1): June 2007.