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The strategies implemented by major South African construction companies before and after the 2010 FIFA World Cup

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration

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ABSTRACT

When countries get awarded to host a major sporting event such as the FIFA World Cup, construction companies play an important role, as they help develop the infrastructure required. Due to the environmental change in the South Africa at the time of the 2010 FIFA World Cup, construction companies needed to adapt their strategies in order to accommodate for unexpected changes in the needs of the country. Construction companies needed to acclimatise their strategies for the preparation of the World Cup and, once preparation was completed, needed to change them again. The effect of the World Cup for South Africa was different to past hosting countries as South Africa is a developing country compare to other first world countries, such as France or Germany, which required the country to invest in large amounts of infrastructure that previous World Cup hosts already had.

The study analyses and presents the core strategies implemented by major South African construction companies and will assess the changes before and after the 2010 FIFA World Cup.

The research was conducted using a qualitative methodology, based on six interviews with industry experts with data being assessed using thematic content analysis.

Construction companies changed their strategies in order to adapt to the change in environment. They used the basic components of business strategy namely, scope of business, competence and resources, competitive advantage, synergy and the external environment. The lessons learnt by these South African companies can be used to assist other developing economies in similar situations.

The key message taken from this study is that the planning and timelines put in place to meet the demands of construction can either make or break such a large project. In South Africa, shortfalls in expertise and management, sharp increases in demand, and poor time management resulted in substantial additional costs being incurred by the state as well as the companies. The study addresses these issues, detailing which methods worked well and which methods failed, which companies succeeded and capitalised from the opportunities presented by the world cup, and which companies could not handle the increased pressure.

DECLARATION

I, Sergio Panayi, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

_____

Sergio Panayi

Signed at Wits Business School, Johannesburg

On the 13th day of November 2014

DEDICATION

I would like to dedicate this dissertation to

My Mother, Neophyta Panayi,

who made all the sacrifices in her life to raise and educate me.

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I would like to express my sincere gratitude:

To my supervisor, Mr Trevor Lake, for the continuous support, patience and motivation throughout my dissertation.

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CHAPTER 1: INTRODUCTION

1.1 Purpose of the Study

The purpose of this study is to assess the impact that the 2010 FIFA World Cup had on the construction industry in South Africa, being a developing country, and the different strategies these companies adopted before and after the event. The report will evaluate whether the major construction companies maintained the same strategies and, if not, how these strategies changed after the World Cup. It will evaluate which companies succeeded and which companies failed.

The study will use a qualitative research method and will gather information using a semi-structured interview approach. It will use an explanatory comparative design to compare the strategies of these companies.

1.2 Context of the Study

Major sporting events such as the Fédération Internationale de Football Association (FIFA) World Cup and the Olympic Games are the largest sporting events defined by attendance and financing needs (Sterken, 2006). Sterken (2006) also mentions that these events create hype and excitement for the hosting countries. They contribute to economic growth, investment in infrastructure and telecommunication, labour productivity and urban development. They also increase the tourism, consumer confidence and local availability of jobs, thus escalating the local growth rate.

During the 2005 FIFA World Cup bid, South Africa was privileged by being elected to host the 2010 FIFA World Cup. For South Africa being a developing country, this was a great opportunity to accelerate improvement and growth in various sectors within the country. Allmers and Maennig (2009) discusses the objective was to aid South Africa with the improvement of infrastructure, financial growth and job creation. In addition to this, build its nation by branding and improving the image of the country to promote tourism.

Construction companies play an important role in the preparation for these major events as they help develop the infrastructure of the country to meet the requirements for the event. They boom as they have to develop stadiums, transport systems, roads, hotels and other structures to host such an event. According to Statistics South Africa (Stats SA), statistician-general Pali Lehohla states that "*Income in the sector reached R267-billion in 2011, down from R285-billion in 2009, the year the industry probably benefited most from the construction of infrastructure for the 2010 Soccer World Cup*" (Venter, 2013). This showed how the total income for the construction industry dropped in 2011. After these events, construction companies will have fewer projects resulting in a decrease in their revenue and profits. This may cause problems for the organisation.

According to the recent Business Monitor International (BMI) quarterly infrastructure report, the construction industry in South Africa is characterised by an oligopolistic environment where five companies account for 75percent of the industry output. These construction companies are Aveng (owner of Grinaker-LTA), Murray & Roberts, Wilson Bayly Holmes-Ovcon (WBHO) Construction, Group Five and Basil Read (Bond & Cottle, 2011). Additional to the five major construction companies, Stefanutti Stocks and The Liviero Group were also involved with the preparation of the World Cup.

Aveng Grinaker-LTA was founded in 1889 by James Thompson in Durban. Today they are a construction and engineering group that is operating in South Africa, Africa, Middle East Asia, Asia Finland, Australasia, United States of America and Chile. They are anchored in South Africa and focus on power, mining, infrastructure, commercial and industrial, oil and gas.

Murray & Roberts is South Africa's leading engineering, contracting and construction services company. They focus on specialist construction markets such as industry and mining, oil and gas, power and energy, building, infrastructure and service and the management of concession operations. Murray & Roberts originated in South Africa and was established in 1979. Their geographical expansion goes beyond South African borders and they are

involved in projects in the Middle East, Africa, South East Asia and the Americas.

Wilson Bayly Holmes-Ovcon (WBHO) Construction was founded in 1970 when Wilson-Holmes [Pty] Ltd was formed by John Wilson and Brian Holmes. Many mergers occurred, finally resulting in WBHO in 1994. WBHO is one of the largest construction companies in Sub-Saharan Africa. Their main divisions are Building Construction, Civil Engineering, Roads and Earthworks. The geographic expansion extends from Southern Africa to the Middle East and various Indian Ocean islands.

Group Five was established in 1974 and is one of South Africa's and Africa's leading construction companies. They operate in Southern, East, West and Central Africa, Middle East Asia and Eastern Europe. Group Five has many divisions in construction services, materials and infrastructure investment.

Basil Read was created in 1952 by Mr Basil Leonard Read. There are four divisions; Construction, Development, Engineering and Mining. The Construction Division involves projects in buildings, civils and roads across the Sub-Saharan region. The Development Division focuses on transforming informal settlements with sustainable housing for South Africans. The Engineering Division is the process and power generation design and project execution company. The Mining Divisions a mining specialist operation across Southern Africa.

Even though Stefanutti Stocks does not fall under the big five construction companies, it is still one of South Africa's leading construction groups. Stefanutti was established in 1970's holding the name Stefanutti & Bressan. In 2007, Stocks Limited joint the Stefanutti group creating the name Stefanutti Stocks and now they employ over 12 000 employees and the company has the ability to carry out a wide range of projects. Stefanutti Stocks extends across the construction of fixed infrastructure, municipal services, mining & industrial facilities and buildings. They are based in South Africa, throughout Africa and in the Middle East countries.

The Liviero Group is South Africa's largest privately owned construction company. Liviero was founded in 1955 in Italy and immigrated to Zimbabwe in 1965, relocating to South Africa in 1983. They operate mainly in South Africa, specialising in civil engineering, roads and earthworks, building, property development, mining infrastructure, open cast mining and yellow metal plant hire.

During the preparation of the 2010 FIFA World Cup, South Africa's major construction companies flourished. This study will investigate how these companies adapted to the change in the environment before and after the World Cup.

The study will further research some issues Brazil is facing with the preparation of hosting the 2014 FIFA World Cup. It will assess what effects the sporting event is having on them as well as any strengths or weakness in their strategies, as can be compared to the lessons learned in South Africa.

Brazil and South Africa are both members of BRICS, which forms part of the developing or newly industrialised world. De Melo (2011) mentions that South Africa and Brazil have many similarities and differences. They both are the largest economies in there continents, they both have high levels of income inequalities and have informal markets with very low personal incomes. Both countries have infrastructural problems and poor organizational abilities to host international sporting events such as the FIFA World Cup. The difference between these two countries is the high unemployment rate, South Africa is sitting on 25% and Brazil is 7.3%. This means that the Brazilian population is better off than South Africa's. Brazil also have a stronger football culture and is an important feature in their country (de Melo, 2011).

Developing countries have major competitive disadvantages when bidding to host major world-wide events compared to developed countries, with a most obvious disadvantages being the lack of sufficient infrastructure (Zhou & Ap, 2009). The study of Brazil will investigate whether the country is following the same strategy trends as South Africa.

1.3 Problem Statement

To analyse and present the core strategies implemented by major South African construction companies and to assess the changes before and after the 2010 FIFA World Cup

1.4 Significance of the Study

The study fills a gap in determining the strategies and precautions construction companies should take when an influx of work is received due to major events which last for a relatively short period of time.

The study not only has value to developing economies, but to construction companies in developed societies too. There are similarities in any economy experiencing an extraordinary economic boom, followed by a sudden decrease in demand. Assessing which strategies work and during which part of the business cycle is key in understanding how to deal with such situations. Added to this, the effects of an impending global economic crisis and how South African companies dealt with this concern will give valuable insight into future similar scenarios.

The data and results can be utilised by other emerging countries as a benchmark. The strategies implemented by the South African companies can be analysed and strategies can implemented or corrected based on these results.

1.5 Limitations of the Study

- The study will focus on the five major construction companies and two smaller developing companies only. These five major construction companies are Aveng Grinaker-LTA, Murray & Roberts, Wilson Bayly Holmes-Ovcon (WBHO) Construction, Group Five and Basil Read. The two developing companies are Stefanutti Stock and Liviero.

- The study will only focus on two sections in the construction industry. It will focus on stadiums and transportation, the two main infrastructures concerning the World Cup.

1.6 Definition of Terms

- FIFA World Cup – The most prestigious international football tournament played every four year by the top footballing countries in the world (Coggin, 2013).
- The Olympic Games – The largest international athletics competition, hosted every four years by different cities around the world.
- Strategy – Refers to techniques and ideas implemented by the company involved to avoid a negative turn post the sporting event.

1.7 Assumptions

The necessary personnel interviewed will supply the required information. If there are any confidentiality concerns, both parties will discuss what can and cannot be made public. If the personnel do not desire to disclose strategies and other necessary information, they will inform the interviewer.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This section discusses the literature review for the study. The first section will discuss the impact the FIFA World Cup had on South Africa, while the second section will analyse the theoretical strategies and situate them for the construction industry. The section will close with an outline of the main findings.

2.2 Background Discussion

Countries are competing with each other for hosting major sporting events as they gain benefits for the local community and businesses (Bohlmann & Van Heerden, 2008). However, these communities ignore the negative impacts that may occur (Kim, Gursoy, & Lee, 2006). The reason for these countries wanting to host these events are for creating awareness of their country, creating new trading partners, increasing tourism, creating jobs and new business opportunities, new developments such as housing and infrastructure and building a legacy of sports infrastructure (Preuss, 2000). Similarly, Danny Jordaan, the chief executive of the South African World Cup 2010 Organizing Committee, states that *"The World Cup is about nation building, it's about infrastructure improvement, it's about country branding, it's about repositioning, it's about improving the image of our country, and it's about tourism promotion. It's also about return on investment, job creation and legacy. These are the things that drive not only our nation but the nations of the world."* (Allmers & Maennig, 2009).

Hosting a major sporting event requires a great commitment from the hosting country as there are certain guarantees which the hosts will have to meet that are agreed upon by the hosts and the respective sporting federation. Consideration should be taken as there is long and difficult period leading to the actual event.

Any country that wishes to host a FIFA World Cup must provide a number of guarantees before football's governing body will grant it the right to host the event. These guarantees, however, are not intended to benefit FIFA alone. Rather, fulfilling the guarantees will also help to improve infrastructure and accelerate development within the hosting country (Mabugu & Mohamed, 2008).

Host cities are responsible for fulfilling the obligations contained in the host city agreements signed with FIFA, with support from national and provincial government. The host city agreements include aspects such as stadiums and official training grounds, supporting infrastructure, an official fan park, city beautification and compliance with FIFA marketing guidelines within the cities. Moreover, it requires many other services such as parking areas, supplementary commercial and recreational activities and well organised transportation networks for to cater for vast crowds (Erten & Özfiliz, 2006).

2.3 The Effects of the 2010 FIFA World Cup

2.3.1 *Prior to the 2010 FIFA World Cup*

Major sporting events are usually reserved for developed countries with well-established infrastructure, as the amount of capital investment needed for preparation for these events is normally too large for developing economies to handle (Bohlmann & Van Heerden, 2008). Being a developing nation, South Africa creates expectations with special importance, therefore economic effects have been assessed relatively early (Allmers & Maennig, 2009). Even though informed opinions suggested that South Africa would be ready for the World Cup, a lot still needed to be done for a successful World Cup (Pillay & Bass, 2008). Mabugu and Mohamed (2008) mentions that the responsibilities for the government for hosting the World Cup were to define, design, cost and execute projects to ensure compliance with FIFA regulations. These government organisations were Home Affairs, Finance, Safety and Security, Sports and Recreation, Communications, Transport, Environment and Tourism, Trade and Industry, Justice and Constitutional Affairs, Foreign Affairs and Health.

Cornelissen and Maennig (2010) mentions that there are three types of infrastructure needed for the preparation of the World Cup; stadiums, transportation and accommodation. Approximately R9 billion was allocated for six stadiums which were newly constructed or refurbished and four current stadiums which were upgraded.

Transportation systems were needed to avoid traffic and ecological problems during the event. Therefore, the government allocated another R9 billion on upgrading the national roads and airports.

Table 1 shows the vast amount of resources, R17.4 billion, that were allocated for the construction of stadiums and transportation - only 60% of the total cost. This information gave construction companies an indication of how much development was still needed leading up to the World Cup, and a guideline for increasing their resources to handle the amount of work. Furthermore, investment in the construction of stadiums and transportation systems led to higher demand for within other construction sectors, such as trade and accommodation, electricity and water, agriculture and mining (Mabugu & Mohamed, 2008). This view is further supported by Bohlmann and Van Heerden (2008).

Table 1: The predicted costs in 2006 for hosting the 2010 FIFA World Cup

Project	Cost
Stadiums	R8.4 billion
Transport	R9.0 billion
Broadcasting	R400 million
ICT	R2.5 billion
Safety and Security	R666 million
FIFA	R3.1 billion
Ports of Entry	R1.573 billion
Training of Volunteers	R25 million
Community Mobilisation	R17 million
Legacy Projects	R337 million
Arts and Culture	R150 million
Organising Committee	R3.2 billion +

Source: Business Unity South Africa (2006) in (Mabugu & Mohamed, 2008).

2.3.2 *Post 2010 FIFA World Cup*

There are both positive and negative impacts following such a large event. The high investment prior to the World Cup will have created more sustainable structures with lingering effects, while the sudden decrease in production and construction would create a potential vacuum and a slowdown of the industry.

One area of the economy that feels a high increase in demand is property, with prices soaring in such times. When hosting a major sporting event, changes in infrastructure in and around the hosting area are likely to take place (Cashman, 2003). These upgrades and changes are meant to have a positive impact on the region and thus on property prices.

In this World Cup, the majority of the expenditure was spent on infrastructure and operations. It was estimated in 2006 that R17.4 billion would need to be spent. In 2010, R30.3 billion was spent on infrastructure and an additional R9 billion by cities and provinces, bringing the total of R39.3 billion (Cottle, 2010).

The budgets for the construction of stadiums and transportation infrastructure were exceeded significantly by 2010, caused by factors such as the increase in material costs and the delays in scheduling, creating a rise in total costs (Cornelissen & Maennig, 2010). With the government spending R39.3 billion on hosting the World Cup and only receiving R19.3 billion, a significant loss was incurred by South Africa, while construction companies made significant revenues and profits (Cottle, 2010). The table indicates the budgeted cost against indicated final costs of the ten 2010 FIFA 2010 World Cup Stadiums (Baloyi & Bekker, 2011).

Table 2: Initial budget versus final costs

Stadium cost Indicated	Initial budgeted	final cost
Soccer City – Johannesburg	R 2.2 billion	R 3.3 billion
Ellis Park – Johannesburg	R 240 million	R 253 million
Moses Mabida – Durban	R 1.6 billion	R 3.7 billion
Mombela – Nelspruit	R 600 million	R 1 billion
Green Point – Cape Town	R 2.9 billion	R 4 billion
Nelson Mandela Bay – Port Elizabeth	R 2.1 billion	R 1.45 billion
Peter Mokaba – Polokwane	R 1.3 billion	R 1.24 billion
Royal Bafokeng – Rustenburg	R 360 million	R 483 million
Mangaung – Bloemfontein	R 245 million	R 359 million
Loftus Versfeld – Pretoria	R 122 million	R 131 million

Baloyi and Bekker (2011) mentions that there are various factors that cause cost and time overruns. For cost the factors are the increase in material cost, external inaccurate material estimates, shortage of skilled labour contractor, late contract award, project complexity, and others. For time the factors are incomplete drawings, design changes, clients' slow decision-making, late issue of instructions, shortage of skilled labour, poor planning and scheduling, labour disputes and strikes, shortage of manpower.

There were other negative effects that occurred after the World Cup unrelated to finance. Although there was large job creation in the construction industry

during the preparation of the World Cup, this was primarily on short term basis, which did little for the unemployment rate in the long term (Pillay & Bass, 2008). According to Cottle (2010), immediately after the World Cup, Statistics South Africa released its Labour Force Survey which mentions that that there was a yearly decrease of 4.7% of employment, approximately 627 000 jobs for the whole economy. Loss driven by the construction industry was 7.1% or 54 000 employees in the formal sector. After the preparation for the World Cup, 111 000 jobs were lost in the construction industry.

There were many labour strikes during the construction of the stadiums demanding increase in wages, bonuses, transportation allowance and improved health and safety (Cottle, 2010). A 70 000 construction worker strike brought the construction of infrastructure to a stop. The strike ended after eight days once the labourers were promised a 12% increase in their wages (Cottle, 2010). This indicates that the labourers were paid more during the preparation of the world cup and may have resulted in negative effects once their projects were completed.

Cottle (2010) argues that the preparation of the World Cup also created a backlog in service delivery. R23 billion was needed to avoid wastewater treatment works from collapsing. In 2010 there was a housing backlog of 2.1million units, effecting 12 million people through more than 2700 informal settlements. The amount spent for the preparation of the World Cup could have developed these houses.

As is evident, there was high investment during the World Cup, but due to poor time management and resource allocation, there were significant negative side effects that could have been avoided. On the other hand, the effects of a large amount of the infrastructural change are still felt today, that would not have been there if it were not for this event.

2.4 Strategy for the Construction Industry

Andrews (1990) in Betts and Ofori (1992) defines strategies as "…ways of doing things; finding methods and favourable conditions for achieving objectives: to impose upon the market the place, time and conditions of trade preferred by oneself" (p. 522). Businesses need to change the way they provide goods and services, they need to provide goods and services more economically to survive and recover from difficulties. This this will improve performances, create growth for the organisations and satisfy client's needs (Betts & Ofori, 1992).

With today's environment, situations change frequently and companies need to be responsive to these deviations and have strategic procedures to overcome these changes (Porter, 1996). Thompson and Martin (2010) mention that organisations need to identify where they are currently standing, where they are going and how to manage these changes. Managers need to know what their duties in the organisation are and how they can contribute to strategic changes (Thompson & Martin, 2010). Management need to be proactive and take control of the situation for a business strategy to be of essence (Ramsay, 1989).

The 2010 FIFA World Cup created opportunities and difficulties for the construction industry and these companies needed to adapt their strategies to overcome these changes. As much as it is an easy change of strategy to increase production during a booming economy, as was the case in the time leading up to the World Cup, companies need to be aware of the difficulties faced in order to reduce production following such an economic boom. This is why it is so important for management to balance short term goals with long term objectives.

2.4.1 *Theories of strategic management*

Ramsay (1989) used a framework that has four components of business strategy. The components are: (1) Scope of the business; (2) Competence and resources; (3) Competitive advantage; and (4) Synergy. Collis and Rukstad

(2008) also use a similar method in their article "*Can you say what your strategy is?"* This study will use Ramsay (1989) framework with an additional component being the business environment.

- **Scope of the business**

Scope of the business covers three areas; these areas are customer or offering, geographic location and vertical integration (Collis & Rukstad, 2008). Betts and Ofori (1992) similarly discuss that the scope of activities addresses what kind of projects an organisation wants to employ; looks into the geographical location of an activity; and the customer preference. From these areas, an organisation should see what on what activities it should focus and on what they should not. The objective of a company is assessing their long term goals. It can be broken into the profitability, the growth and the survival of the company (Warszawski, 1996).

- **Competence and resources**

Competence and resources refers to the skills and abilities to compete successfully in a competitive market (Warszawski, 1996). Companies need strategies to respond quickly and with agility when the market changes. A company needs to examine their capabilities internally; they need to look into their strengths and weaknesses, see what the company does best and where their strengths are (Chinowsky & Meredith, 2000). Identifying a core skill for an organisation is vital to corporate strategy (Ramsay, 1989). In order for a company to stay ahead in a competitive market, they need know what they do best and using that lead to improve on other aspects to increase their competitive advantage (Betts & Ofori, 1992).

- **Competitive advantage**

Competitive advantage is a critical aspect of strategic management. Competitive advantage focuses on two elements; customer value propositions and unique activities (Collis & Rukstad, 2008). Customer value propositions are the organisation's unique attributes that attract customers and they are driven by resources and capabilities. Unique activities are the activities that deliver the company's customer value proposition (Collis & Rukstad, 2008). Michael Porter

(1996) (p.13) states*, "Competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value."* This emphasises that competitive advantage is about being unique, offering either low cost or differentiation to customers (Porter & Millar, 1985).

- **Synergy**

Synergy is how the firm's processes can be combined (Betts & Ofori, 1992). It is the way you interact various elements in a system to produce a system greater than the individual elements (Segal-Horn, 2004). This is done by reviewing the company and its external environment, choosing a strategy with regards to the company's resources and the competitive market in which it competes (Warszawski, 1996).

- **Business environment**

Warszawski (1996) mentions the business environment is also an important component of business strategy. Business environment revolves around the opportunities that the company can exploit and the threats the company can prevent. Some factors that can affect the environment are economic activities, national and local government, laws and regulations, potential clients and competitors and main production factors.

2.4.2 *Strategic management for the construction industry*

The study will analyse the above components mentioned and put them in the construction context.

- **Scope of a business within construction**

In the construction industry, the scope of work is separated into many divisions; namely, residential, roads, power, mining, infrastructure, commercial, industrial, oil and others. The scope also regards the geographical expansion, if the company is based locally, regionally, nationally and/or internationally. The organisation needs to know what the best scope for the company is by the owner's preference, the perception of the market or other considerations (Warszawski, 1996).

- **Competence and resources within construction**

Warszawski (1996) describes that there are various elements that *competence and resources* have in the construction industry. These elements are construction and project management, procurement, marketing, organisational infrastructure, personnel, finance and knowledge.

❖ *Construction and project management*

The construction element will concentrate on a company's ability to execute during the development of projects. These are construction planning, monitoring, directing and control (Warszawski, 1996). The company will look at the preferred construction methods. In order to determine a suitable strategy, speed, quality and costs need to be considered.

Atkinson (1999) mentions in project management they use the cost, time and quality constraints to determine their strategy. The time refers to the amount of time to complete a project, the cost refers to the budget available and the quality refers to finishing product. These three constraints generally compete with each other:

- Increasing quality typically means increasing time and cost,
- A tight time schedule could mean increasing costs and reducing quality,
- A limited budget could mean increasing time and reducing quality.

❖ *Procurement*

As Warszawski (1996) mentioned above, the company needs to look into their resource management. They need to look into the way the suppliers and sub-contractors are adjudicated and selected, taking into account the cost and quality of the product supplied. Under difficult situations, the company may need to save cost by producing some of their own materials and purchase or hire plants.

Companies also need to look at whether they hire labourers and purchase their own materials or appoint sub-contractors. This may save costs for the company in difficult situations but, however, may result in the loss of production time.

- *Marketing*

Betts and Ofori (1992) and Warszawski (1996) mention that a construction company needs to know what market it should target and by informing their potential clients about the company's capabilities and services in their value chain. A market strategy needs to take place in order for a company to attract their potential clients. Construction companies may need to look for relationships with clients rather than once off project (Betts & Ofori, 1992).

- *Organisational Infrastructure*

The organisational infrastructure is the activities and responsibilities for developing a system (Ransom, Somerville, & Warren, 1998). In the construction industry, a company needs procedures for planning and executing projects. Companies also need to adapt to fast completion of projects and regular design change (Warszawski, 1996). An IT system is also important for the infrastructure as it eases and integrates the organisation within one system, creating efficiencies.

- *Personnel*

According to Warszawski (1996) and (Hillebrandt, 1990) a company's personel is the most important resource in a competitve market for the construction industry. This is because every day decisions need to be made as there are regular unforseen circumstance in such an industry. Management in a construction company has both technological and business tasks. Technological tasks are tasks revolving around the construction of a project such as project planning, construction methods, budgeting and estimating and quality control. The business tasks are the back-of-house overhead management tasks; namely, financial management and accounting, marketing and procurement. Companies can improve their personnel either by hiring new management or offering training programmes for existing employees.

❖ *Finance*

Finance is a vital aspect in strategic planning. Capital decisions and resource allocation are sensitive to change and, without finance, it is difficult to invest in personnel, marketing, facilities, procurement and knowledge. The better the company's financial position is, the greater the opportunities to perform its strategic plans are (Warszawski, 1996). By having financial resources, it may help to gain direct advantages from clients, sub-contractors and suppliers.

❖ *Knowledge*

Like personnel, Warszawski (1996) mentions that knowledge focuses on the two aspects; the technological and managerial spheres of construction. The technological aspect centres on the construction methods, details and standards. The managerial aspects are information systems, decision tools and procedures. Knowledge also focuses on the capability of the company to handle more complex and advanced projects. A company needs experience to adapt to unforeseen circumstances. Changes for more efficient and economic designs also need to be researched and implemented.

- **Competitive advantage**

Tendering and minimising cost are not the only way of creating competitive advantage in the construction industry. In today's world, quality and value for money are equally as important (Tatum, 1988). Betts and Ofori (1992) also mention that product differentiation needs to be used for a construction company. They need to see where the market and competitors lie and see what strategy needs to be implemented. It can either be low cost or offering design, services and customer relationship.

- **Business environment**

Warszawski (1996) argues that in a construction industry the economy activity may affect the construction activity such as economic growth, availability for funding, inflation and mortgage market. Government investment programs in housing, infrastructure, laws and regulations will also create change in the

environment. The demand for private and public sector may play a part as well as the supply of sub-contractors, labourers and supplier.

2.5 Conclusion of Literature Review

From the above literature in Section 2.3, the 2010 FIFA World Cup created a different environment for the construction industry than before the World Cup. Before the World Cup, construction companies had to develop facilities such as stadiums and transportation. The government spent a lot of their budget in order to get these facilities ready for the event. The budgets for the construction were exceeded significantly, caused by factors such as the increase in material costs and the delays in scheduling, creating a rise in total costs. Without these facilities, the 2010 FIFA World Cup could have been taken away from South Africa, resulting in many negative implications for the country. Construction companies had to come up with different strategies to handle and exploit these changes to the environment.

After the World Cup, the environment has changed completely, requiring the construction companies to take a different strategic direction. The market has dropped and a more conservative approach is now needed to remain competitive.

A questionnaire was designed from the literature review focusing on the elements of the strategies noted above such as scope of work, objectives, procurement, competitive advantage, personnel and finance.

2.5.1 *Research Question*

How did the major South African construction companies adapt to changes in the environment and, consequently, how did the strategies change before and after the FIFA 2010 World Cup?

CHAPTER 3: RESEARCH METHODOLOGY

The research methodology chapter discusses the qualitative research method followed by the design of the research. The procedures and method sections outline the data collection and instruments used, the target population that is being analysed, ethical consideration, data processing and analysis and the description of the respondents. Finally, the research reliability, validity and limitations are discussed.

3.1 Research Strategy

This study used the qualitative method to investigate and analyse the results required (Bryman, 2004). The objective of the qualitative design is to gain a constructive understanding of the effects that occur and the perceptions of the respondents on certain events (Fellows & Liu, 2009). Crawford, Pollack and England (2006) used the qualitative approach to investigate the techniques for the analysis of risks in major projects. This method is suitable for the study because it was the best approach to gain a clearer understanding from the respondents.

3.2 Research Design

The research design is an explanatory comparative study. A comparative design is comparing data from two or more different societies (Ragin, 1989). Aouad & Price (1994) uses a comparative design to compare construction planning and information technology between construction industries in the United Kingdom and the United States of America. In this study, the purpose was to explain the different strategies these construction companies did around a major sporting event, focusing on areas, but not limited to, Cost, Time, Resources, Cash Flow, Maintaining Employment and Brand Building.

3.3 The Research Instrument

The research instrument used was a semi-structured interview to gain the main data (Appendix A). An interview allows researchers to visit their respondents personally to understand and express their situation and views (Creswell, 2013). Semi-structured interviews were used in the Bresnen & Marshall (2000) case study to investigate the clients and contractors collaboration in the United Kingdom construction industry. This instrument was used as it gives the interview a structure to follow a prearranged route of questions and the flexibility to expand on further important information for the study (Sexton, And, & Aouad, 2006).

3.4 Population and Sample

3.4.1 *Population*

The population is the major construction companies involved with the infrastructure for the preparations of the 2010 FIFA World Cup.

3.4.2 *Sample and sampling method*

A quota sampling strategy (Henry, 1990) was taken to identify the appropriate personnel. Sexton, and et al (2006) has used quota sampling to identify a set of small construction companies that mirrored a certain criteria. This method was used because senior management from each company needed to be chosen to conduct the interviews. These management teams were used due to their expertise and knowledge about the strategic methods and their implications around that period. This study aimed to interview these companies on the different constructions fields mentioned in the study. Interviews were requested telephonically and if respondents were unaware or unavailable in the interview period, they directed me to appropriate alternative respondent.

Table 3: Confirmed Respondents

Company	Position	Number of Respondents
Aveng Grinaker-LTA	Director	1
Murray & Roberts	Director	1
Wilson Bayly Holmes-Ovcon (WBHO)	N/A	Did not respond
Group Five	Director	1
Basil Read	Director	1
Stefanutti Stocks	Director	1
Liviero	Director	1

3.5 Data Collection

Prior to the interview, a document was emailed to the respondents, giving an overview and reasoning for the study. This was followed by a telephonic conversation asking if the respondents received the email and if they were interested or if they could indicate who the appropriate management to approach would be. Once the meeting was arranged, a semi-structured interview was used to interview senior management in the major construction companies involved with the preparation of the 2010 FIFA World Cup. Interviews took roughly an hour to complete and took place in their offices. The questionnaire was comprised of nine questions, giving the individual approximately seven minutes per question. This created a formal business interview as well as an analysis of the working environment for each company. There were two fields being investigated so therefore a senior management member who was involved in both fields was interviewed per company. During the interview, a request for recording was asked to gather the data. Once the interview was done, it was transcribed into documents for further analysis. An observation of the office was also being examined; which indicated the culture and atmosphere of the company.

3.6 Ethics

Ethical considerations have been taken into consideration when drafting the questionnaire. Ethical consideration was taken into account and guaranteed the protection of human rights - these include disclosure of the study, privacy, confidentiality and harming the participants, either physically, by stress, self-esteem or persuading participants to perform reprehensible acts (Kylmä, Vehviläinen-Julkunen, & Lähdevirta, 1999). The questionnaire did not invade privacy or involve dishonesty. Addition to this, prior to the interview, an ethical consent form was sent to the respondents. This consent form was retrieved from the UK Data Archive (see Appendix B)

3.7 Data Analysis

Thematic data analysis is the process for encoding qualitative information(Boyatzis, 1998). This was used in the study as it is an ideal method for a better understanding when concepts emerge which can be broken up into identifiable central themes and sub-themes(Aronson, 1994). The relevant data was identified into the classified themes and explained. This helped with reputations in each theme to gain a comparative study. It also focused on similarities and difference across the themes. Thematic data analyses can also emphasis on the way respondents perceive concepts depending on the position they hold in the company. Raidén and Dainty (2006) used a thematic data analysis to present a case study research of the human resource development strategy, policy and practice. This research was based on the concept of learning organisations for construction contractors based in the United Kingdom.

3.8 Description of the Respondents

The ideal respondents that were interviewed were senior management involved with the strategy of the company. They had been in the company during the preparation and post-World Cup. Management that were interviewed were from the fields involved in the World Cup (construction of stadiums and transportation). The interview took place in their office or board room.

3.9 Validity & Reliability

This study used external and internal validity to test the legitimacy of the research.

3.9.1 *External validity*

External validity notes whether or not an observed causal relationship should be generalised across similar measures (Calder, Phillips, & Tybout, 1982). This study can be transferred to other developing countries that are hosting major sporting events. It may also give insight to students that would like to investigate the strategic measures taken within the construction industry.

3.9.2 *Internal validity*

Internal validity is used to describe the accuracy of the theories and how they can be distinguished from each other (Messick, 1990). It also indicates how good the match is between the observation and the theoretical ideas. If the answer remains consistent no matter how many ways the question is asked, then the data is reliable (Abowitz & Toole, 2009).This study confirmed internal validity by giving each respondent a similar interview. The researcher did not compromise the respondents and also followed ethical consideration. Analysis of financial reports and other articles assisted with the validity of the data.

3.9.3 *Reliability*

Reliability is a measure of the consistency of the study across similar research (Kayes, 2005). For a reliable study the data should produce the same results when other factors remain constant. Using data from existing sources is more consistent, reliable and stable than using self-reported data which may cause bias and inaccuracy (Abowitz & Toole, 2009). A full description was given of how the samples were chosen and the questionnaires were adopted from the literature review. Once the interviews were completed, the recordings were transcribed accurately to documentation. The interviews were arranged around the same time creating more accuracy.

3.10 Limitations

3.10.1 *Research sample*

This study is limited to developing countries and the construction industries involved in major sporting events. The sample size was limited to six interviews. This is due to the limited time frame and the difficulty in getting respondents to interview. With issues around the Competition Commission of South Africa, there were limitations in getting all the questions answered within each interview. The appropriate respondents did not want to participate in the interview due to time constraints or legal implications and this may have led to personnel that were not fully qualified in answering the questions.

3.10.2 *Other limitations*

The time frame to gather data was limited to three months taking into account the festive season. This limited the overall magnitude of the study. The respondents may not have answered the questions truthfully as it may have implications for the company which the interviewer was unable to determine. The respondents may also have not had the expertise to answer all the questions in the interview.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

The results of the study were gathered from a number of interviews held with senior management within some of the major construction companies of South Africa. Further information was obtained from annual financial statements and their official websites. The results will be presented in a thematic data analysis table describing various main themes and sub-themes, and the interviewees' responses to each theme. The response to each of the themes will be discussed with the sub-themes following.

4.2 Demographic of Profile Respondents

The interviews were the primary source of data and were attained from senior management within the major construction companies of South Africa. The respondents were various directors that were involved around the time of the World Cup. A total of six interviews were conducted, one respondent per company. The respondents were all highly experienced in the construction industry and most of their working years were within the industry. Four of the interviews were from construction companies which form part of the major five construction companies of South Africa and two interviews were from large construction companies that played a part in the preparation of the World Cup. Initially, the plan was to conduct seven interviews, the five major construction companies and two companies involved in the preparation of the World Cup. However, due to the investigation from the Competition Commission Board and time constraints, the initial plan changed as some companies were unwilling to supply certain market-relevant information.

4.3 Results Pertaining to Themes

The thematic analysis was used to obtain the main and sub-themes from the interviews. The interviews resulted in the founding of the following six main themes:

- Projects with which the construction company was involved,
- The main objectives they focused on,
- The procurement systems,
- The personnel strategies,
- Financial outcomes,
- The closure of the projects and company.

The above six elements were subdivided into sub-themes that are linked to these themes.

Table 4: Thematic Content Analysis

Themes	PRIOR WORLD CUP						POST WORLD CUP					
	Group Five	Aveng	Basil Read	Murray & Roberts	Stefanutti Stock	Liviero	Group Five	Aveng	Basil Read	Murray & Roberts	Stefanutti Stock	Liviero
Projects												
Stadia	X	X	X	X	X	X						
Transportation												
GFIB	X	X	X			X	X	X	X			X
Others	X	X	X	X	X	X	X	X	X	X	X	X
Objectives**												
Time	1	1	1	1	1	1	5	4	5	5	5	4
Quality	2	3	2	2	2	3	2	2	2	3	3	2
Costs	3	2	3	3	3	5	1	1	1	1	2	1
Cash Flow	4	4	4	4	4	4	4	3	3	2	1	5
Maintain Employment	5	5	5	5	5	6	3	5	4	4	4	6
Brand Building	6	6	6	6	6	2	6	6	6	6	6	3
Procurement												
Purchase Manufacturing Company	X		X									
Change in Systems	X	X					X					
Personnel												
Managerial Structure Change		X		X	X	X		X		X		X
Hire New Personnel	X	X	X	X	X	X		X		X	X	X
Additional Training Programs	X	X		X								
Finance												
Additional Finance	X	X	X	X	X	X						
Positive Closure												
Maintain Employment							X					X
Projects							X	X	X	X	X	X
Payment								X	X			

***Objectives were prioritised: 1 being most important and 6 being the lowest priority.*

4.3.1 *Projects*

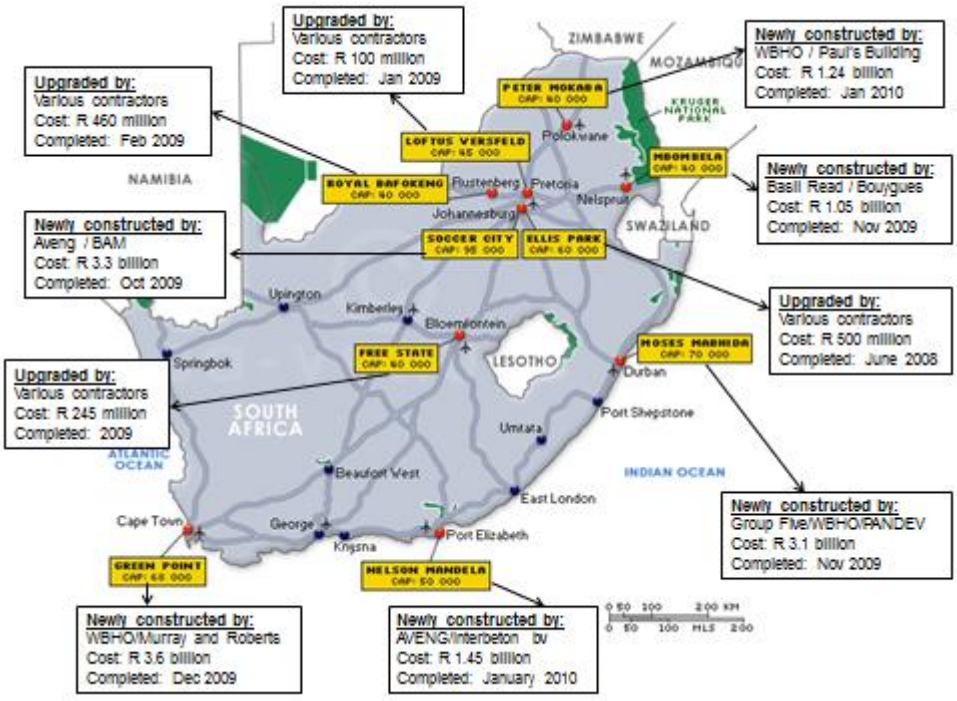
This theme concentrates on the projects these companies were involved with during and after the World Cup. The study concentrates on the construction of stadiums and transportation and therefore the study will give a detailed description of the selected divisions and a brief summary of the other works.

(The following information was taken from Group Five (2014), Aveng Group (2014), Basil Read (2014), Murray and Roberts (2014), Stefanutti Stocks (2014) and Liviero (2014))

- **Stadiums**

All of the selected construction companies were involved with the stadiums for the World Cup. In figure 1 below shows all the stadiums part of the World Cup. Six stadiums were newly constructed and four of them were renovated. The information below was gathered from interviews and substantiated from various articles and annual reports mentioned in the literature review.

Figure 1: 2010 FIFA World Cup Stadiums



Source: SA-Venues (2014).

- *Group Five*

Group Five were involved with the Moses Mabhida stadium in Durban and the Cape Town Stadium in Cape Town. Group Five was the lead player in the construction of Moses Mabhida stadium holding approximately 75% of the value at R3.3 billion and they did a joint venture with WBHO and PANDEV. WBHO fabricated the compression ring, columns supporting the compression ring and temporary support steelwork for the main arch of the stadium. Group Five played a minor role as a sub-contractor in the Cape Town Stadium which was a joint venture with Murray and Roberts and WBHO.

- *Aveng Grinaker-LTA*

Aveng Grinaker-LTA was involved with Soccer City in Johannesburg and Nelson Mandela Bay Stadium in Port Elizabeth. The total value of Soccer City was R3.3 billion and the Nelson Mandela Bay Stadium was R1.45 billion. Aveng Grinaker-LTA did a joint venture with Royal Bam, a company from Holland, which had the ability to tackle the civil works of the stadium such as the mechanical, electrical and access works. A joint venture was made with Interbeton b.v. for the Nelson Mandela Bay Stadium.

- *Basil Read*

Basil Read was only involved in one stadium, Mbombela Stadium in Nelspruit. It was valued at R1.05 billion and they did a joint venture with Bouygues Travaux Publics, a construction company from Paris, France. Bouygues Construction is the world's leader in building, civil engineering, electrical contracting and maintenance. The skills that they brought were all the high level skills, such as the planners and engineers. They also controlled the finance and administration of the contract.

- *Murray and Roberts*

Murray and Roberts went in a 50% joint venture with Murray and Roberts for the Cape Town Stadium. It was valued at was R2.86 billion

❖ *Stefanutti Stocks*

Stefanutti Stocks had a minor role as sub-contractors in the Moses Mabhida stadium and the Royal Bafokeng stadium.

❖ *Liviero*

Liviero got awarded a sub-contract job from Aveng Grinaker-LTA to do the earthworks for Soccer City. Initially, the earthworks were valued at approximately R40 million and went to R120 million with the extensions. Liviero was also involved with the upgrade of the Royal Bafokeng Stadium

❖ *Industry Summary*

All major construction companies were involved with the newly built stadiums. They were either in consortium with each other, with smaller local construction companies or with international companies. The upgrade stadiums were managed by selected project managers and they sub-contracted the works out to various trade contractors.

- **Transportation**

Like the stadiums, all the construction companies interviewed were involved with improvement of the roads, airports and train stations all over the country.

❖ *Group Five*

Group Five were involved with several types of transport projects. Such as the Roads, Bus Rapid Transit (BRT), Railways, Airports, Harbours

They started the constructions of freeways and some of the national highways before the World Cup, and the projects that were not completed prior to the World Cup were finished after.

They were involved with The Gauteng Freeway Improvement Project which included lane additions and improvements to interchanges for SANRAL in the Gauteng region such as:

- Package A - N1 freeway between Diepkloof Interchange and 14th Avenue.

- Package E - N3/N12/N17 freeway complex, including the Reading and Elands interchanges.
- Construction of 5.6km of the N17 road linking Soweto to Soccer City at Nasrec. The contract included new bridges and the jacking of a bridge under the New Canada railway line.

In addition to the above, Group Five constructed the Bus Rapid Transit (BRT) trunk route station located across the Johannesburg CBD, Soweto and Nasrec in the Gauteng region. This BRT comprised of the construction of 71 bus stations in and around Johannesburg in two phases, namely 1A & 1B.

They were also involved with the expansion of the Koeberg Interchange in Cape Town between the M5 and the N1, which included the construction of new bridges, widening existing bridges, construction of pedestrian bridges and the addition of new lanes.

Group Five built the Nasrec Metrorail in Johannesburg which was a new rail infrastructure to service the 2010 FIFA World Cup. Works included earthworks, formation layer works, lateral support, track laying, Overhead Track Electrification (OHTE) and signalling, bridge construction and services. In Durban, Group Five formed a consortium with WBHO for the construction of the new King Shaka International Airport in Durban. The Durban Harbour involved the widening of entrance by 100m, removal of existing north break and deepening of harbour entrance to 19,0m. All three contracts were completed mid-2010.

❖ *Aveng Grinaker-LTA*

Aveng Grinaker-LTA was involved with Gauteng Freeway Improvement Project, Cape Town International Airport and Port of Ngqura in Port Elizabeth.

Aveng Grinaker-LTA partnered with Moseme Road Construction and Boitshoko Road Surfacing and Civil Works to carry out two contracts for the Gauteng Freeway Improvement Project. The projects were:

- Package C on the N1, Buccleuch to Brakfontein interchanges which was 21km long,

- Package F on the N3 from the Geldenhuys interchange to Buccleuch interchange which was 17.6km long.

The projects started prior the 2010 FIFA World Cup and were completed after the sporting event. They consisted of roadwork's adding extra lanes, upgrading intersections and building new bridges to improve traffic flow in both sections. A total of eight new bridges were built.

Aveng Grinaker-LTA did the Construction of the New Integrated Terminal at Cape Town International Airport and created a joint venture with Stefanutti Stocks. The construction of the airport was a new integrated terminal of 74,500 m^2 gross area, 62,000 m^2 new build and 12,500 m^2 refurbishing existing buildings.

Port of Ngqura Container Terminal situated close to Port Elizabeth, established a 150,000 m^3 concrete slab, as well as supplementary underground works. It also included road works and construction of a bridge.

❖ *Basil Read*

Basil Read was involved with many road works in South Africa. They were involved with roads that were needed for the World Cup and other roads in SA. They are still currently busy with roads all other road works. The completed jobs were:

- The Gauteng Freeway Improvement Project: Phase 1 (D1 and D2 packages),
- The N1 Winburg project,
- R59 passing Sasolburg.

After the World Cup they still had major road works to complete, namely:

- The Gauteng Freeway Improvement Project: N12 Tom Jones (Package K),
- Postmasburg, Northern Cape,
- The N17 upgrade,
- N1 Fonteintjie.

Phase 1 (D1 and D2 packages), the project had a joint venture between Read, Roadcrete Africa, Dip Civils and Chavani. This was valued at R1.9 billion, which was completed to exceptional standard, ahead of the deadline.

The N1 Winburg project involved the rehabilitation of 25km of the existing N1 from Glen Lyon in Bloemfontein to Zandkraal in Winburg, including the construction of two new dual carriageways. The contract was completed six months early and handed over to the client on 6 June 2009.

Basil Read did a joint venture with Set Time and Thulahohle Construction to construct two sections of the R59 passing Sasolburg between the Vaal River and the N1 highway.

Basil Read constructed most of the stations for the Gautrain. They did the OR Tambo International Airport Station, Rhodesfield Station, Marlboro Station, Pretoria Station and Park Station.

In 2009, Basil Read Roads was awarded another contract for the Gauteng Freeway Improvement Project, Package K, involving the N12 Tom Jones and Rietfontein Interchanges on the East Rand.

Postmasburg in the Northern Cape is the 33km of railway line worth approximately R140 million. Basil Read Roads with associated roads and drainage structures have formed a joint venture to construct all the civil and earthworks.

Basil Read in a Joint Venture with Dip Civils, worked on the N17 Section 3 between Trichardsfontein and Bethal in Mpumalanga. This contract holds a value of approximately R343 million.

The N1 Fonteintjie near Bloemfontein had new lanes to be constructed; this also included the construction of seven bridges that needed to be improved, along with one bridge that was entirely replaced.

Basil Read was also involved with the Waterkloof Airport Base Phase 1, 2 and 3. This was the rebuilding of the main Runway and Taxiway at Waterkloof Air force Base.

- *Murray and Roberts*

The Gautrain Rapid Rail Link was built by Murray and Roberts and they had a joint venture with Strategic Partners Group (25%), Bombardier (17%) and Bouygues (17%). The project is an 80 kilometer transport system which includes five anchor stations in Johannesburg, Sandton, Pretoria and at OR Tambo International Airport. Additional stations along the route include Rosebank (which Murray and Roberts constructed), Marlboro, Midrand, Centurion and Rhodesfield (these four stations were constructed by Basil Read). After the awarding of the 2010 FIFA World Cup, they rescheduled the project into Phase 1 and Phase 2, Phase 1 being the link from OR Tambo International Airport to Sandton and phase 2, linking Rosebank Station in Johannesburg to Hatfield Station in Tshwane.

Murray and Roberts was the manufacturer and distributor of asphalt surfacing materials for the Gauteng Freeway Improvement Project and the Cape Town Roads. This was valued at R867 million.

- *Stefanutti Stocks*

Stefanutti Stocks also played a minor role in the road works of the country. They worked on several roads and bridges around Moses Mabhida stadium and Soccer City. They also did a joint venture with Aveng Grinaker-LTA to Construct the New Integrated Terminal at Cape Town International Airport

- *Liviero*

Liviero got involved with the Rosebank underground station sub-contracting for Murray and Roberts. At the same time, they did a joint venture with Group Five to construct the freeways around Gauteng. They also constructed a R60 million project, frontage roads for the PWV3, linking the Greenstone Park, Hill and Modderfontein area to London Road. It was completed in August 2009 for the World Cup.

- *Industry Summary*

Most of the major construction companies took a section of the roads in the Gauteng Freeway Improvement Project and every company was involved with

some part of the road work. Other transportation systems such as the BRT, railways, airports, harbours and the Gautrain were also constructed by these major construction companies.

The smaller companies were also involved with the roads and other transportation systems but they did the sub-contract works for the major construction companies.

Roads and other transportation systems needed to be rehabilitated and built after the World Cup as well.

4.3.2 *Objectives*

The objectives were categorised into sub-themes of cost, time and quality. Further to this, the study added another three objectives that were mentioned in interviews. These are Cash Flow, Maintaining Employment and Brand Building.

Table 4, shows what objectives each company followed before and after the World Cup. Objectives were prioritised, 1 being most important and 6 being the lowest priority.

- *Industry prior the World Cup*

The table above shows that during the preparation of the 2010 FIFA World Cup all the companies had the same objectives. Time was the biggest objective for all the companies followed by quality. They major construction companies including Stefanutti Stocks said that cost was the next objective they followed but it wasn't one of the core objections during the preparation of the World Cup. Liviero being a small company mentions that other objectives such as Brand building and cash flow were more important than the cost factor. None of the major companies worried about the cash flow, retrenchment and brand building.

- *Industry post World Cup*

After the World Cup, the results have shifted to costs and cash flow being the main objectives. For all the companies except for Stefanutti Stock, cost became

the most important factor. For Stefanutti Stock, cash flow was more important followed by costs.

Quality still remained in the top objectives for all the companies. Time fell to one of the bottom objectives with maintaining employment and brand building as they were not important after the World Cup.

4.3.3 *Procurement*

This theme revolves around the procurement of the construction company during the preparation on the 2010 FIFA World Cup. It focuses on the purchasing of manufacturing companies and the change in the procurement system.

- **Purchasing of manufacturing companies**
  - *Group Five*

Quarry Cats was acquired by Group Five in the late 2006 which produced commercial aggregates to ready-mix, stone and sand supplier. Quarry Cats was bought for R750 million.

Sky Sands, a supplier of plaster and washed sand products that produced for building materials merchants, the building industry and the precast concrete products industry was bought by Group Five in 2007 for R124 million.

In 2007 Group Five bought Bernoberg, a manufacturer of cement extender valued at R32 million. Granulated Blast Furnace Slag is also a by-product of the steel manufacturing process which is crushed and sold to ready-mix concrete producers.

  - *Basil Read*

Basil read acquired a small crushing company and sold it before they made a loss on it.

❖ *Industry Summary*

Besides Group Five and Basil Read, the major companies did not purchase any manufacturing companies for the World Cup.

- **Change of procurement systems**
  - ❖ *Group Five*

Group Five did not change their purchasing system but they changed their procedures. They generally procure materials from companies with high BEE ratings. During the World Cup they ignored that procedure. They bought materials as they were available. After the World Cup, they went back into selecting higher rated BEE suppliers.

❖ *Aveng Grinaker-LTA*

Aveng Grinaker-LTA had the same systems and procedures during the World Cup. However, Aveng Grinaker-LTA used silos from Afrimix, a ready mix company, to set up plants at the stadiums. They did not own these silos, they still belong to Afrimix.

❖ *Industry Summary*

None of the construction companies had major changes to their purchasing systems and procedures for the World Cup and they did not change their strategies later.

4.3.1 *Personnel*

This theme looks into the managerial and skill aspects of employment. It focuses on the change in Managerial Structure, hiring of new personnel and training development.

- **Change in managerial structure**
  - ❖ *Group Five and Basil Read*

There was limited change in the managerial structure for Group Five and Basil Read.

- *Murray and Roberts*

Murray and Roberts hired new top managers to replace the existing ones. These new managers changed the strategies, structure and philosophies of the company. They also did a joint venture with Bouygues to assist with the Gautrain.

- *Aveng Grinaker-LTA*

The Aveng Grinaker-LTA managerial system changed as they brought expertise from an international company to assist in managing the technical works for Soccer City. Aveng Grinaker-LTA took over the finance, reporting, management and systems, while Royal Bam, a company from Holland, tackled the civil and technical works of Soccer City.

Aveng Grinaker-LTA also hired a new management team which changed the managerial structure of the company completely.

- *Stefanutti Stocks*

Stefanutti Stocks listed in 2007 and this resulted to major managerial change. However, this was for capital injection and not for the World Cup.

- *Liviero*

Liviero was a developing company and, therefore, managerial change was made. They hired new managers and existing manager left. After the World Cup, Liviero is still changing the managerial structure.

- *Industry Summary*

The managerial structure aspect for the industry was very different throughout all the companies. Some companies' managerial structure stayed the same, others changed completely and the smaller companies changed as they are in the developing stage.

- **Hiring of new personnel**
    - ❖ *Group Five*

Group Five needed to hire new personnel to assist with the World Cup projects such as the stadium and pipelines. They needed welders, pipe fitters, electrical engineers and engineers from Germany, United Kingdom and Belgium. Group Five got rights from the government to import 2000 temporary skilled personnel and labourers from all over the world. The Moses Mabhida Stadium was designed by German engineers. The criterion was education, skills and experience. Group Five formed consortiums to get the required skills.

❖ *Aveng Grinaker-LTA*

Aveng Grinaker-LTA did not hire new employees and specialists and they used Royal BAM expertise. These people where highly skilled engineers, technical people and planners. However, they did hire new top managerial staff.

❖ *Basil Read*

Basil Read got new management from other companies. Basil Read gained resources for the World Cup from acquiring new small companies. Engineers, foremen and labours were brought in from other regions Philippines.

❖ *Murray and Roberts*

Murray and Roberts hired new personnel in the senior management position and they brought in management that did not necessarily have any construction experience.

❖ *Stefanutti Stocks and Liviero*

Stefanutti Stocks and Liviero head hunted managers from other companies.

❖ *Industry Summary*

All the construction companies needed to hire new managers and skilled employees to assist with the World Cup. They either got people internationally, from other local construction companies or other local companies that were not

involved with the industry. The most important factor was that all companies were only interested in the skill of their employees.

- **Additional training**
    - ❖ *Group Five*

Group Five conducted substantial training. They have a Group Five academy, and they put between 12,000 and 17,000 people in training interventions annually. They have training centres all over South Africa and across all sites.

- ❖ *Aveng Grinaker-LTA*

Aveng Grinaker-LTA had a training school next to the stadiums. Added to this, they have a culture of hiring highly skilled individuals into their ranks.

- ❖ *Murray and Roberts*

Murray and Roberts had training programs before the World Cup with the Gautrain and that was moved to World Cup projects.

- ❖ *Industry Summary*

In the construction industry there is always training that is needed and supplied. Most companies simply continued with the general trend of training unskilled labour but no additional training was conducted, beside the usual training programmes already in place by some of the companies.

4.3.2 *Finance*

This theme looks at whether the companies needed additional finance for developing projects during the preparation on the 2010 FIFA World Cup or not.

- **Additional finance**
    - ❖ *Group Five*

Group Five needed additional finance to run the issues revolving around the World Cup projects.

- *Aveng Grinaker-LTA*

Aveng Grinaker-LTA needed finance but they did not specifically need finance for the World Cup.

- *Basil Read*

Basil Read did not need finance for the preparation of the World Cup

- *Murray and Roberts*

Murray and Roberts did not need to find capital for the World Cup projects but they had issues with getting finance for the Gautrain.

- *Stefanutti Stocks*

Stefanutti Stocks went listed but this was unrelated to the World Cup.

- *Liviero*

Liviero needed finance for the World Cup sub-contract works they were doing.

- *Industry Summary*

Most companies needed finance, either for the World Cup, or for other reasons such as capital for growth or other issues.

4.3.3 *Closure*

This theme deals with the manner in which these companies closed off projects and partnerships relating to the World Cup.

- *Group Five*

Group Five closed off the road and stadium contracts very well. The negative issues were the manufacturing companies they bought and they are still trying to settle some of the commercial buildings they were involved in.

- *Aveng Grinaker-LTA*

All projects closed well and finance was not an issue. However, they did not close off well with regards to management structures and, thus, staff was retrenched.

- *Basil Read*

The projects were all completed as scheduled before the World Cup. The turnover increased during the World Cup showing good profits.

- *Murray and Roberts*

Murray and Roberts projects were completed on time. There are still some defects and financial issues that need to be resolved for the Gautrain.

- *Stefanutti Stocks*

Stefanutti Stocks closed off the World Cup projects they sub-contracted for.

- *Liviero*

The Building Division of Liviero retrenched a few people but the Civil Division did not retrench anyone. They completed the works on time but battled getting cash flow from the main contractors. Liviero hit a rapid growth rate during the World Cup and it led to further growth after the World Cup.

- *Industry Summary*

The companies closed off the World Cup projects well but some of the roadwork still needed to be completed after the World Cup. There are some issues left unfinished such as finances, cash flow and retrenchment.

4.4 Brazil

Additional results were found from various articles to assess what Brazil has done during the preparation of the 2014 FIFA World Cup with regards to South Africa's findings.

According to many articles and news feeds, Brazil is involved in disputes and delays over the preparations for the 2014 FIFA World Cup, which may result in them not being ready to host the 2014 FIFA World Cup successfully.

- *Projects*

The main construction projects that Brazil needed to focus on for the preparation of the FIFA World Cup were the construction of stadiums and transportation infrastructure. The Brazilian construction industry had to complete the construction or refurbishment of 12 stadiums, 37 transport projects, 13 airports and 7 ports(Cottle, do Canto Capela, & Meirinho, 2013).

- *Objectives*

Brazil has issues with completing the World Cup projects on *Time* (Antunes, 2013). In May 2012, only 25% of the transportation projects had completed the tender process and 41% of the 2014 World Cup project had not started (Cottle, do Canto Capela, & Meirinho, 2013).

FIFA have concerns with Brazils *Quality and Safety* as they had incidents with the stadiums (Antunes, 2013; Gibson, 2014).

Brazil had poor *Cost* budgeting and cost overruns for the construction of the infrastructure of the FIFA World Cup. Brazil's stadiums cost three times more then they initially anticipated (Antunes, 2013).

- *Personnel*

Brazils unemployment rate increased to 5.6% in February 2013 and the construction industry hires approximately 2.5 million formal workers and 1.5 million informal workers

Brazil has assistance from BMP, a German architectural firm to assist them with the construction of the 2014 FIFA World Cup projects

- *Finance*

Information was not found for construction companies and their financial state due to the World Cup.

- *Closure*

As the 2014 FIFA World Cup has not yet happened, the closures cannot yet be finalised but some information can be mentioned that has occurred already.

Construction companies in Brazil, made significant amount of profits with the construction of the World Cup projects (Cottle, do Canto Capela, & Meirinho, 2013).

Brazil is under pressure with completing the stadiums in time and other infrastructures won't be completed by the 2014 FIFA World Cup.

Brazil construction companies are under investigation with the Competition Commission Board with cartels (Cottle, do Canto Capela, & Meirinho, 2013).

4.5 Summary of the Results

In answering the initial question of:

"How did the major South African construction companies adapt to changes in environment and consequently how did the strategies change before and after the FIFA 2010 World Cup?",

We analysed major South African construction companies with regards to their strategies pertaining to stadiums, transportation, financing and several other key facets of their businesses.

The underlying theme throughout the companies was that they all needed to change their competitive mentality in order to create partnerships amongst each other. This was needed in order to manage resources, finances, personnel and timelines more efficiently, so as to be able to delivery on a strict timeline. This is

supported by the way in which the prioritisation trends changed before, during and after the World Cup.

In analysing these results, one would need to interpret the above results to assess whether these strategies were successful, if so, why they were successful, and if not, why they were not.

CHAPTER 5: DISCUSSION OF RESULTS

5.1 Introduction

The study will use Ramsay (1989) framework which has four components of business strategy. The components are: (1) Scope of the business; (2) Competence and resources; (3) Competitive advantage; and (4) Synergy. With the limitations of the Competition Commission Board, the study will omit the competitive advantage. The study will use the remaining three components to analyse the strategy construction companies used during the change in the external environment with the preparation of the World Cup.

Each theme and sub-theme was derived from the literature review and the results will be discussed per company. This will be followed by a summary of the industry as a whole and how these results compared to our findings in the literature review.

5.2 Demographic of Profile Respondents

From the six interviews that were conducted, the following demographic was:

- Two of the respondents worked for both two companies during the World Cup and therefore answered questions for both of the companies.
- All four of the respondents were males, which shows that the industry is male dominated.
- All four of the respondents were white which shows the lack of empowerment in the industry
- All four of the respondents were senior management with high experience in the industry.
- All four of the interviews were held in the office board-room.

5.3 Discussion Pertaining to Themes

5.3.1 *Projects*

This theme was derived from the literature review under the scope of a business. It focuses on what type of divisions these construction companies employed. This study focuses on the stadiums and transportation as it was the client's preference at the time. The geographic location was focused around the areas in South Africa where the World Cup was getting held.

- **Stadiums**
  - ❖ *Group Five*

Group five held the majority of works for Moses Mabhida Stadium in Durban. As it was one of the biggest stadiums being built for the 2010 FIFA World Cup, they formed a joint venture with WBHO and PANDEV to assist them with the project. Group Five played a minor role with the Cape Town Stadium sub-contracting works for Murray and Roberts and WBHO. This was done as they did not want to take on too much work, to the detriment of the quality.

  - ❖ *Aveng Grinaker-LTA*

Aveng Grinaker-LTA, being the biggest construction company financially, could take a lot more work for the 2010 FIFA World Cup. They also sub-contracted a large volume of the works to other companies, which did not take away the resources and skills from their own other works. The total value of Soccer City was R3.4 billion. Of that, R2.5 billion was sub-contractor and special trades. The sub-contractors' work is omitted as it does not affect the structure of the company. This left approximately R900 million in earthworks, civil and building for Aveng Grinaker-LTA. Over the three year period, it amounted to approximately R300 million per annum, which was a negligible sum for Aveng Grinaker-LTA. Nelson Mandela Bay Stadium was the same but it cost R1.8 billion and R600 million related to civil and building work. Over the three years, it valued at R200 million per annum. The stadiums jointly were R500 million per annum and this was not a large amount of work needed. Aveng Grinaker-LTA also had the assistance of Royal BAM, a well-known construction company

from Holland, which had the experience with building stadiums as they were the contractors for the Germany World Cup. This alleviated the pressure for Aveng Grinaker-LTA as Royal Bam took control of the civil, mechanical, electrical and access works while Aveng Grinaker-LTA took over the earthworks, civil and building as well as the admin and financials aspects.

- *Basil Read*

Basil Read created a consortium, with Bouygues Travaux Publics holding 60% for the development of the Mbombela Stadium. This was done due to capacity concerns, because at the time of planning, they did not have the capacity for the project. Furthermore, Basil Read was under the impression that they would be involved in developing another stadium which was not built. Bouygues Travaux Publics was also at one stage the main shareholder of Basil Read.

- *Murray and Roberts*

Murray and Roberts only constructed one stadium, Cape Town Stadium. They had a 50% joint venture with WBHO. Murray and Roberts were under the perception that they would take on a lot more work involving the 2010 FIFA World Cup but with the Gautrain being developed, they used all their resources and skills to construct and resolve all the issues the Gautrain have caused for them. They also lost staff member to other construction companies which limited them to expand their works for the World Cup.

- *Stefanutti Stocks*

Stefanutti Stocks were under the conversion of being a listed company in order to expand. They took minor roles in the construction of the World Cup as they were changing their strategy and were unable to carry out their business as usual. They did small works for the Moses Mabhida stadium and the Royal Bafokeng Stadium. Stefanutti Stocks was still one of the smallest players at the time when projects were put out for tenders. Their strategic plan was also to take on projects that were not involved with the 2010 FIFA World Cup, capitalising in a gap in the market.

- *Liviero*

Liviero, being a small privately owned construction company, tendered and got awarded the earthworks contract from Aveng Grinaker-LTA for soccer city. Aveng Grinaker-LTA Civils was too large to take on a small earthworks project for the stadium which was valued at approximately R40 million. The R40 million job went to R120 million which resulted in great growth for Liviero.

- *Industry Summary*

All companies interviewed were involved with the construction of the stadium because it was one of the core requirements needed to host the 2010 FIFA World Cup.

The newly built stadiums were too big for a single company to do on their own so they formed consortiums with each other, smaller local construction companies or international construction companies.

At least one of the major construction companies was involved with each of the stadiums, either as a major or minor holder. These companies also needed assistance from experienced international companies to assist with the construction of the stadiums. A lot of the works were sub-contracted to other traded companies and the major construction companies took control of the general works, admin and finance of the projects.

The smaller construction companies took sub-contracting work from the major construction companies as they were too small to take control of a stadium on their own.

The research agrees with Preuss (2000) and Allmers and Meannig (2009) who mention that these events create new business opportunities, new trading partners and new developments such as housing and infrastructure and building a legacy of sports infrastructure.

- **The Gauteng Freeway Improvement Project**

Group Five, Aveng Grinaker-LTA, Basil Read and Liviero were involved in the Gauteng Freeway Improvement. This project was created to upgrade the roads, bridges and intersections and to improve traffic flow as part of the overall Gauteng Freeway. The tenders comprised of many separate packages which was the result of SANRAL inviting bids from pre-qualified consortia. SANRAL were required to include large, medium, and small contractors. This was instructed in order to improve the SMME and BEE participation. Chapter 4 mentions with which packages each company was involved.

- **Other transportation**
    - ❖ *Group Five*

Group Five were involved with most of the works related to the World Cup, although the road works was not solely done for the World Cup. For the World Cup they had to improve access from the airport and all the access around soccer city. They did this by constructing the (BRT) trunk route station located across the Johannesburg CBD, Soweto and Nasrec in the Gauteng region to allow for easy access to the stadiums and around Johannesburg. The stadiums needed to be serviced and therefore the Nasrec Metrorail in Johannesburg was built to accommodate the World Cup. Durban constructed a new airport to accommodate international flights. This was not constructed because of the World Cup but it still played an important role as it helped tourists and supporters to get to Durban more conveniently. Group Five did other transportation work that was not involved with the World Cup and these works still required resources from the company.

- ❖ *Aveng Grinaker-LTA*

The New Integrated Terminal at Cape Town International Airport was constructed to improve flights going in and out of Cape Town. Like King Shaka Airport, it was not constructed because of the World Cup but it assisted tourists and supporters to get to Cape Town more conveniently.

- *Basil Read*

Basil Read was involved with several roadwork projects, the most out of the major five construction companies. They were and are still currently constructing roads all across the country. They were more involved with the road works outside the Gauteng region and, like every other company, they continued with the road works after the World Cup.

Murray and Roberts had a lot of work and problems involving the Gautrain which resulted in Basil Read constructing most of the stations for the Gautrain. They did the OR Tambo International Airport Station, Rhodesfield Station, Marlboro Station, Pretoria Station and Park Station.

- *Murray and Roberts*

The Gautrain project had already commenced before the preparation of the 2010 FIFA World Cup and therefore it did not form part of it. Once South Africa was awarded the hosting of the 2010 FIFA World Cup, they rescheduled the link from OR Tambo International Airport to Sandton, Phase 1, to be done for the 2010 FIFA World Cup which was successfully completed 19 days ahead of schedule. The second phase, linking Rosebank Station in Johannesburg to Hatfield Station in Tshwane was completed after the World Cup on 2 August 2011. Murray and Roberts were only involved with the Rosebank Station.

- *Stefanutti Stocks*

As mentioned above, Stefanutti Stock were under the transformation of getting listed and therefore did not take on a lot of work for the World Cup. Instead they looked for the gap in the market to take on work that was not involved with the major sporting event. However, they sub-contracted works for Group Five and WBHO for the Moses Mabhida stadium and Aveng Grinaker-LTA for Soccer City.

Stefanutti Stocks also did a joint venture with Aveng Grinaker-LTA to assist them with the Construction of the New Integrated Terminal at Cape Town International Airport.

- *Liviero*

One of the biggest boosts for Liviero was when they got involved with the Rosebank underground station sub-contracting for Murray and Roberts. This was a great step for them being a small construction company. Further to this at the same time they did a joint venture with Group Five to construct the freeways around Gauteng and a sole job on the Frontage roads for the PWV3. These jobs increased their turn over incredibly, giving them an opportunity to compete with the major companies for new tenders.

- *Industry Summary*

As with the stadiums, all companies interviewed were involved with the construction of transportation systems. These contracts were not solely for the World Cup, but played a major role in the hosting of the event.

Most of the major construction companies took a section of the roads in the Gauteng Freeway Improvement Project and every company was involved with some part of the road work. The road works was a massive project that needed to be done for the country and needed the assistance from all major and other construction companies. Other transportation systems such as the BRT, railways, airports, harbours and the Gautrain were also constructed by these major construction companies.

With the large amount of roads and other transportation systems that needed to be rehabilitated and built, these companies needed to continue with the roads after the World Cup as well. During the event all construction had to stop one month prior to the event. There were certain lanes which had to be finished to accommodate the people for the World Cup. All construction had to stop and whatever was done had to be fully operational, construction companies had to clear the roads. All roads that were semi-completed had to be surfaced and those roads had to be operational. After the World Cup they had to undo the surfacing and continue with the road works again.

The smaller construction companies boomed during the preparation of the World Cup because it opened business opportunities for them as mentioned by Preuss (2000) and Allmers and Meannig (2009) in the literature review. Other

smaller companies worked on other jobs that were not involved with the World Cup opening a gap in the market to exploit. The smaller companies were still involved with the transportation but took sub-contracting work from the major construction companies.

Mabugu and Mohamed (2008) mentions in the literature review that this will help to improve infrastructure and accelerate development within the hosting country. This was true, as the roads, airports and other infrastructure were improved and accelerated during the preparation of the World Cup. Erten and Ozfiliz (2006) mentions that the World Cup also increased the well organise transportation network, this was catered for the World Cup but was maintained and the people of South Africa use it as daily transportation.

The World Cup had improved South Africa's transport system well and in the end the country benefited from it immensely.

5.3.2 *Objectives*

The themes were derived from the literature review in project management of the cost, time and quality constraints to determine their strategy. Further to this, Mabugu and Mohamed (2008) mentions in the literature review that the responsibilities for the government for hosting the World Cup were to define, design, cost and execute projects to ensure compliance with FIFA regulations. Other important objectives derived from the interviews were cash flow, maintaining employment and brand building.

- **Prior to the 2010 FIFA World Cup**

Since the companies had similar objectives before the World Cup, the importance of each objective and why it was taken into account will be discussed.

- *Time*

Prior to the World Cup, the key objectives for the projects were deadlines, as they were non-negotiable. Fortunately, South Africa was controlled by FIFA at the time which was an excellent entity to assist in the meeting of the deadlines.

FIFA gave local organisers no choice but to finish on time as the kick off time could not be moved. In order for these deadlines to be met, a lot of additional people needed to be employed. Other projects involved with utilities infrastructure, e.g. power stations, all had deadlines to meet but most were missed. Local organisers were more focused on the image of South Africa to the external world rather than concentrating on the country's fundamental development, affecting the internal factors of the country.

Allmers and Meannig (2009) mentions in the literature review that it is all about improving the image, country branding and repositioning. The research and results correspond with the literature review as they mention the government was more interested in saving the image of South Africa to the external world. Furthermore, the literature by Cottle (2010) also mentions the World Cup created a back log for service delivery which collates with the research.

- *Quality*

FIFA was pedantic about the quality. Quality needed to be finished from a world class standard as South Africa had many visitors who expected 1st world standards. The unfinished works such as the roads needed to look finished. Quality also involved safety for pedestrians and visitors. The access to the stadiums needed to be free from harm as security around the stadiums was a fundamental requirement. Safety was also a huge factor that needed to be addressed.

- *Cost*

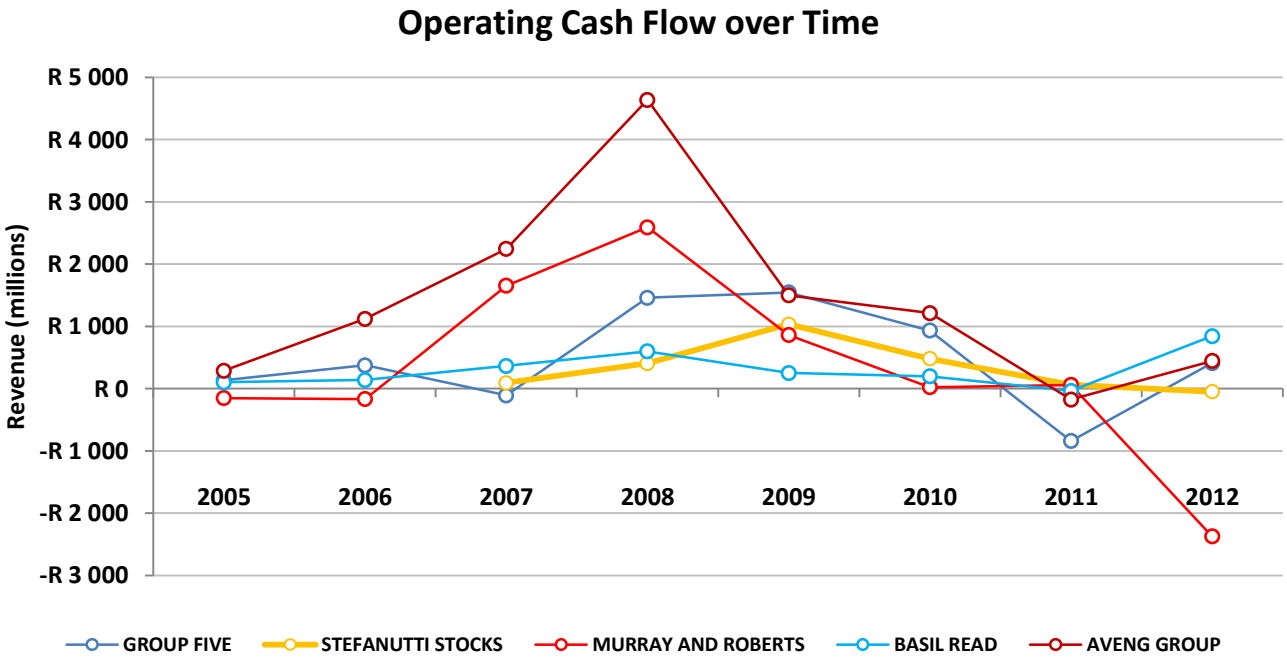
Cost was out of the control of the organisers and the construction companies, due to the strict deadlines. As with any project, in order to meet deadlines, cost always suffers in the trade-off for time and quality. As Atkinson (1999) mentions in the literature review, to decrease time and increase quality, cost will increase.

The research agrees with Cornelissen & Maennig (2010) and Baloyi and Bekker (2011) as they mentioned that the budgets for the construction of stadiums and transportation infrastructure were exceeded significantly by 2010, caused by factors such as the increase in material costs and the delays in scheduling, creating a rise in total costs.

❖ *Cash Flow*

The major construction companies did not worry about the cash flow for the preparation for the World Cup. In the super cycle days, cash flow was not important because it was sufficient. The government paid on time as the works needed to be completed urgently. The government could not take chances with not paying as the works had to be completed before the expected deadlines. Graph 1 shows the trend of operating cash flows over the World Cup period. It shows a positive cash flow during the preparation of the 2010 FIFA World Cup and a sudden decrease post-World Cup.

Graph 1



Source: Companies' financial statements

❖ *Retrenchment*

There were no issues with retrenchment at all. FIFA was in control of the organisers and the deadlines were priority as deadlines could not be moved. Due to the tight time schedule, companies needed to hire more personnel to complete the works which resulted to problems post World Cup.

❖ *Brand Building*

Liviero, being a small company, had similar objectives to the major construction companies but they also needed to build their brand. Liviero needed to get their name out there which meant the works needed to be in excellent quality and projects needed to be handed over to the clients on time. Fortunately, their costs were low due to the smaller overheads they had compared to the major construction companies.

- **Post 2010 FIFA World Cup**

The literature mentions that after an investment event such as the World Cup, there will be a sudden decrease in production slowing the industry down. Therefore, these companies needed to change their objectives for the change in the environment.

❖ *Time Vs. Cost*

After the World Cup, the objectives changed from time exceeding cost objectives to cost exceeding time. Cost has become important because companies' profits decreased and they needed to find ways to maintain their profits. This was done by reducing costs from overheads and production. Time actually became the least important objective because, in order to save costs, resource management was crucial, meaning companies could not allocate as many resources as would be required for timely completion of projects. Atkinson (1999) mentions in the literature review, to save costs, may result in increasing time and reducing quality.

❖ *Quality*

Even though costs were reduced, the quality of works was still one of their top priorities. These major companies always look to give the best quality because the major clients are very pedantic about quality.

- *Retrenchment*

Group Five found that this objective was necessary for the company. Post World Cup, the construction industry let go of approximately 100,000 workers country wide. For Group Five, the big issue was trying to maintain employment after the World Cup as the company had to save costs. This was due to the fact that the companies had to hire many people to meet the deadlines, so employment contracts were required. With the reduction in contracts and tenders, and saving costs post World Cup, workers have been retrenched and unemployment continues. However, other major opportunities such as the roads and power stations have helped with retrenchment as employees moved from the World Cup projects to these major jobs.

Pillay & Bass (2008) mentions in the literature review that although there was large job creation in the construction industry during the preparation of the World Cup, this was primarily on short term basis, which did little for the unemployment rate in the long term. Cottle (2010) also mentions that job loss driven by the construction industry was 7.1% or 54,000 employees in the formal sector. After the preparation for the World Cup, 111 000 jobs were lost in the construction industry.

- *Cash Flow*

After the World Cup, cash flows became increasingly important. The government had over spent for the preparation of the World Cup and, therefore, it made them tight on budgets after the World Cup resulting to one of their key objectives being cash flow. The construction industry deals with low profit margins ranging around 3 or 4%. It is a cash generating business as it uses others cash to fund projects and gain interest. Companies looked at cash flow being either cash neutral or cash positive. The companies had pressure to maintain their turnovers after the World Cup. The turnovers did not drop after the World Cup, but profitability decreased substantially. Cash flow and profit was a big objective after the World Cup.

This shows how the companies swung the objectives completely after the World Cup, going from time and quality being their primary objective to cost and cash flow.

5.3.3 *Procurements*

This theme looks at how the construction industry manages their procurement system. The sub-themes are broken down in two parts, namely, purchasing of manufacturing companies and the change in the procurement system.

- **Purchasing of manufacturing companies**
  - *Group Five*

Group Five were unique in this department, in that they were very concerned in the supply of the materials four years prior the World Cup. Their strategy was to purchase material supplying companies. There were concerns that supply companies would be pushing prices due to excess demand and, in order to mitigate that risk, they bought Quarry Cats and Sky Sands which covered commercial aggregates and contract crushing. They also purchased Bernoberg, a manufacturer of cement extender and steel. They operated them as independent companies but gave themselves priority with regards to materials. At the start, it was wise because they had materials when needed and they managed to get the jobs done on time. If there were abnormal cost increases, it would not affect them as they were able to control the cost.

These companies were not doing well before they were acquired. Group Five believed they could purchase the companies at a discount, be able to turn them around, and sell them at a premium post World Cup. However, they suffered severe losses on sale. The problem was that they could not operate the companies profitably as this was not their core business. Added to this, the companies were already poorly managed. Group Five was competing with companies that were easily crushing old mine dumps with materials lying around, while Quarry Cats had to blast and crush. Group Five sold all the companies, suffering major losses, in order to resume with their core business in construction.

- *Basil Read*

Basil Read did buy a crushing material company but on a smaller scale. Fortunately, they got rid of it fast enough as they realised that this element of the strategy was not beneficial in the medium-to-long term.

- *Industry Summary*

One of the primary factors that increased costs during the World Cup was material costs as there was an unnatural boom in demand and the resource prices were at a premium. This argument was supported by Cornelissen and Maennig (2010) and Baloyi and Bekker (2011). During the World Cup, one of the ways that companies decided to save costs on their materials was by purchasing manufacturing companies. The literature review mentions that under difficult situations, in order to save costs, companies may need to produce their own materials. Group Five followed this strategy, as mentioned above. However, this strategy did not work for them as they accrued major losses.

Besides Basil Read, the other construction companies decided not to purchase companies and not to produce their own materials. Although suppliers were initially stretched, there was sufficient supply to meet the demands of the World Cup.

The smaller companies did not produce materials. They were minor companies concentrating on their core business. They were not in a position to expand prematurely, as the risk was far greater for them.

After the World Cup, relationships continued with the external suppliers but at a slower pace. In 2009, after events calmed down, the supply and demand swung around. Prices came down after the preparation of the World Cup. This was due to the fact that there was no longer the pressure of time and deadlines and, in order for suppliers to offload stock, they needed to become more competitive on price.

Effectively, there were two underlying strategies to meet the increases in demand. The one strategy was to continue purchasing at premium prices in the short term, while focusing on core business functions and the other was to

acquire companies that specialised on other parts of the production process, thereby mitigating the risks of increased demand and inflated prices. In this particular case, the short term risk and premium prices did not warrant the long term strategy of purchasing companies outside of the core scope of business. This was seen by the severe losses faced by Group Five, who was unable to manage the purchased companies efficiently, especially with the decrease in demand post World Cup.

- **Change of procurement systems**
    - ❖ *Group Five*

As mentioned above, Group Five purchased manufacturing companies to mitigate the shortage of materials. They never changed their procurement systems as they had a well-developed system running for the World Cup. In terms of the way they adjudicated suppliers, Group Five is a level 2 BEE company so their criteria in the procurement policies required them to procure materials from BEE companies. Due to the time constrains during the World Cup, this requirement was not met, and they procured where they could get materials. Post World Cup, they went back to meeting BEE requirements.

- ❖ *Aveng Grinaker-LTA*

Aveng Grinaker-LTA did not change in the way they managed and bought materials but they did one change with the stadium. They had a well-known concrete company, Wearne, which positioned equipment on site to produce concrete. The production plant on site was Wearne property. Aveng Grinaker-LTA had ownership of Steeldale which supplied the reinforcing but that was always part of Aveng Grinaker-LTA and was not specific to the World Cup. Steeldale was only used when their price was the competitive.

- ❖ *Industry Summary*

All companies followed the same systems and procedures with minor variances. Shortages were not as big an issue as originally thought during preparations for the World Cup and there was sufficient cement and aggregates. This was one of the strategies that failed for Group Five, as they put too much emphasis on this risk, which turned out to be insignificant. This is backed up with Baloyi and

Bekker (2011) as the shortage of materials was not one of the reasons for increase in construction costs.

5.3.4 *Personnel*

This theme looks at how each construction company managed its managerial structures and the skilled employees. The sub-themes are broken down into the change in the managerial structure, hiring of new personnel to take over the managerial team and assist with the projects and if any additional training was required.

- **Change in managerial structure**
  - *Group Five*

Group Five did not change the managerial structure as they had a lot of major projects from before and this led to a lot of people being stretched in their expertise.

  - *Murray and Roberts*

During the World Cup, there was a lot of expectation from Murray and Roberts to take on more projects. One of the main reasons they did not was because they lost a large amount of employees to other companies. There were two reasons for the loss of people, the main cause being managerial change. During the World Cup they went through some structural changes and due these changes they lost senior personnel. Murray and Roberts changed their top management team and structure of the company and the newly employed managers came with new philosophies. Several of these senior managers had little prior experience in construction and their new philosophies resulted in a lot of people leaving. The other reason was that other companies were growing and picking up work, and were offering senior positions to Murray and Roberts employees, resulting in a high personnel turnover.

Murray and Roberts brought Bouygues to assist with the Gautrain but they were not brought in for the World Cup. They were brought in as they are specialists in similar major projects.

- *Aveng Grinaker-LTA*

The Aveng Grinaker-LTA managerial system changed as they brought expertise from an international company to assist in managing the technical works for Soccer City stadium. When the World Cup came along, Aveng Grinaker-LTA was big enough to do most jobs themselves. Aveng Grinaker-LTA took over the finance, reporting, management and systems and the managing team decided to call on Royal Bam which had the ability to tackle the civil and technical works on the stadium. Stadiums are very difficult to build as the have many technical aspects to build such as the civil infrastructure, buildings, structural steel, cladding, air-conditioning, kitchens, suits, police stations, hospitals, training pitches underneath the stands and many more aspects. Royal Bam looked after the technical works such as the mechanical, electrical and access. They needed their expertise and most of it was resourced outside the country - such as the structural steel work which came from Italy.

Aveng Grinaker-LTA also had the same situation as Murray and Roberts with regards to the change of top management.

- *Basil Read*

Even though there was a lot of managerial movement across companies, the structures across companies were similar enough. The majority of these construction companies all had the same systems and procedures in place and this made it easy for Basil Read to acquire new management from other construction companies.

- *Stefanutti Stocks*

Stefanutti Stocks' entire company has been changed in the last few years due to the increase in revenue growth and new acquisitions. They were listed in 2007 which meant that they had major changes with the management team. However, this was not directly related to the World Cup. They needed capital injection to increase their production to increase turnover, which was an underlying business strategy.

- *Liviero*

Liviero grew exponentially due to the jobs they were awarded during the World Cup. As Liviero was growing, a change of management was needed. Initially they kept a lot of managers within the company. Once the company became more corporate, a lot of managers could not handle the change so they struggled, resulting to resignations. There were changes in the managerial structure because seniors left who needed to be replaced. They had changes from middle to senior level up until mid-2011.

Liviero are constantly developing new systems, simply due to their rapid growth in the civil engineering industry.

- *Industry Summary*

Every construction company that was interviewed had different strategies towards their managerial structures during the time of the World Cup. Companies that kept the same managerial team and structure were the companies that managed to handle the downfall of the effects post the 2010 FIFA World Cup.

Companies like Murray and Roberts and Aveng Grinaker-LTA changed their managerial structure completely which resulted in negative results. Warszawski (1996) mentions in the literature review that a company's personnel is the most important resource. These companies had lost their best members to other construction companies because they brought in external managerial teams that were not familiar with the construction industry. Warszawski (1996) also mentions that knowledge of a manager focuses on the capabilities of complex and advanced projects. At the time of the World Cup, the projects were at their most complex and advanced stages and that was the most critical time in resource and system management. Murray and Roberts and Aveng Grinaker-LTA did not follow the basic steps of strategies with regards to managerial structures and this lead to major problems for them.

The smaller companies in the industry such as Stefanutti Stocks and Liviero were recruiting these quality managers from these bigger companies which resulted in a success in there developing stages. These companies needed

powerful managers to control their structure and systems changes as they were moving into the corporate environment.

Companies also did joint ventures with well-known international construction companies to assist with management and skilled works of the projects. These companies implemented the managerial structure within these projects resulting in managerial changes.

- **Hiring of new personnel**
    - ❖ *Group Five*

Group Five needed to hire new personnel to assist with the complex projects. They needed skilled traits such as welders, pipe fitters, electrical engineers and engineers from Germany, United Kingdom and Belgium for the stadiums and pipeline. Group Five got rights from the government to import 2000 temporary skilled personnel and labourers from all over the world to handle the World Cup production, design and time demands. Once the World Cup works were completed, their contracts were ended. Moses Mabhida Stadiums' arch needed highly skilled riggers and technicians. The stadium was designed by German engineers but Group Five tried to use local labour as much as was possible. The criteria were education, skills and experience. Group Five also formed consortiums due to their shortage of skills.

- ❖ *Aveng Grinaker-LTA*

Aveng Grinaker-LTA did not hire employers and specialists as they called back people from projects in other countries. They also received assistance from Royal BAM as they had the expertise in building stadiums. These people where highly skilled engineers, technical experts and planners. Post and during World Cup, they lost skilled staff due to migrations to other companies. Because of the skills and experience gained during the World Cup, these employees had the opportunity and networking to move to international companies. Aveng Grinaker-LTA was forced to hire new management teams to control the top of the company and, as discussed in the managerial structure, it did not work to their advantage.

- *Basil Read*

Basil Read grew drastically and therefore the personnel grew. They got new management from other companies to assist with the growth.

Basil Read gained resources for the World Cup from acquiring new small companies. There was a consolidation of the market and a lot of acquisitions. A lot of small companies that were doing small works were absorbed and acquired by the larger companies and the resources were re-employed. In a small organisation, you may have a lot of resources doing work but in a large organisation the same amount of resources can double or triple the amount of work, maximising their economies of scale. This is because larger companies can operate more efficiently, have the ability to share overheads across the company and have the negotiating strength of a large company. Therefore, all the smaller companies' resources were absorbed into the larger companies and they grew drastically.

Labourers, engineers and foremen were brought in from other regions around the world, such as the Philippines. Due to time constraints, there was limited time to train local staff, and so foreign employment was an important necessity.

- *Murray and Roberts*

Due to the loss of personnel, Murray and Roberts were looking to bring people from outside the country. They also brought in a lot of management that did not have any construction experience. They were bringing people from other fields such as analysts to run construction. They did this to find alternatives. They were not trying to expand but rather to replace lost personnel.

- *Stefanutti Stocks*

Stefanutti Stocks head hunted managers from other companies as they started to grow and expand. They were looking for experience to take the company to the next level.

- *Liviero*

Liviero needed to hire new personnel from the effects of the growth. They had to hire new managers with experience and skills.

- *Industry Summary*

All the construction companies needed to hire new managers and skilled employees to assist with the World Cup. They used different strategies in order to assist them with the projects. Some companies had joint ventures with well-known international construction companies to help them with the development of the projects. This went well, as the complex projects got completed and the quality was up to FIFA standards.

Construction companies temporarily hired engineers, skilled construction workers and labours from all over the world in order to increase their employment to meet the non-negotiable deadlines, and to get the correct design and quality for each project. Pillay and Bass (2008) mentions in the literature review that there was a large job creation during the World Cup in order to meet the requirements.

The major construction companies acquired the smaller companies in order to increase their resources for the World Cup. This resulted in increases of new personnel as they kept the smaller companies' employees.

The smaller construction companies that were growing head hunted the experienced managers and employees from the other major companies. They did this as they needed to increase their staff and use their expertise in order to expand.

In the construction industry, the same personnel moves from company to company and when they move around, they bring their team with them. People are moving all the time in the industry and this also results to all companies having the same strategies and procedures as they move their ideas with them.

- **Additional training**
    - ❖ *Group Five*

Group Five invested heavily in training as they were worried about the lack of skills. They recognised this in 2007 and boosted their group training. According a director of Group Five, they have a Group Five academy, and they place between 12,000 and 17,000 people in training interventions annually. They look for people that want to work, asses them and train them with different skills. They use training centres all over South Africa.

- ❖ *Aveng Grinaker-LTA*

One of the requirements for both of the stadiums was to train hourly paid labourers. They had a training school next to the stadiums and the specifications were that they could not have had a job before, no skills. The nature of the industry is such that wherever these companies go, they need to hire approximately 70% local staff and therefore can only have 30% from their core teams. The problem with this is that when it comes to short term projects, once they are completed, the companies dissolve, leaving a large amount of unemployed personnel behind. However, they do take on several key employees and promote them into their core team.

- ❖ *Basil Read*

Basil Read did some direct training but not an excessive amount as there was limited time for it. They trained the basics such as shutter hands, builders etc. But most of the people were hired in.

- ❖ *Murray and Roberts*

Murray and Roberts always had very good training programs. A lot of the training they did was before the World Cup with the Gautrain and those employees were leveraged in the World Cup projects.

- ❖ *Stefanutti Stocks and Liviero*

They had standard training programs but nothing excessive or exceptional.

❖ *Industry Summary*

All construction companies had training programs intact as it is a legal requirement in construction. Companies need to hire 70% locals which meant that training was required since, generally, the locals did not have the skills needed for building. Some companies believed that additional training was needed to increase their skill for the preparation of the World Cup and other companies felt that there was no time to train so they just hired the skilled employees.

In the literature review, Warszawski (1996) mentions that resources need skills and abilities to compete successfully in a competitive market. These construction companies used different strategies in order to increase their competence and resources to construct these major projects within the time frame in perfect quality and unique designs. These companies either changed their managerial structure or hired new personnel in different ways, while training staff to develop required skills.

5.3.5 *Finance*

- **Additional finance**

This theme looks at what each company's financial position was, and whether additional funding was required in order to execute the required projects.

❖ *Group Five*

Group Five's primary concern was that they needed additional funding for the World Cup. There were many reasons that caused cash flow problems. Generally, the contracts were from government and this resulted in payment delays. Another issue was that the engineers changed during the course of the project. The problem with this was that the engineers who authorised changes and go-aheads were no longer involved with the jobs and it caused administrative delays. If it was not managed correctly, the documentation would need to be found and re-assessed. Once all of the issues has been quantified

and put on the table, no payment was made. The client needed to be equally competent.

Group Five was also affected badly with the material companies they bought. When they let the companies go, they suffered severe losses. They had to write off large sums of money which affected their cash flow.

Aside from the cash flow problems faced, Group Five's cash flow was stable and monitored closely. Group Five was one of the best performing companies in the JSE at the time.

- *Aveng Grinaker-LTA*

Aveng Grinaker-LTA did not specifically need to find cash flow for the World Cup. They lost a lot of money in the early 2000's in Africa and needed to find finance internationally to keep afloat. During the World Cup they did not need too much capital as they were paid by the clients. However, there were issues and stadiums nearly got stopped.

- *Basil Read*

Basil read did not need additional finance as during the preparation of the World Cup they had no cash problems. There were budgets and the clients paid in order to get the projects completed at a specific time. This is where the market has changed drastically. World Cup organisers had no choice as the roads and stadiums had to be finished because they needed the infrastructure for the execution of the event.

- *Murray and Roberts*

Murray and Roberts did not need to find capital for the World Cup but they had issues with getting finance for the Gautrain. The Gautrain was initially not a World Cup project, it was a concession. The capital was coming through the government but Murray and Roberts got paid in certain milestones as there was a lot of design and construction involved. It became problematic because there were major claims as the project cost three times more than the original budget.

- *Stefanutti Stocks*

Stefanutti Stocks was listed but not specifically for the World Cup. They needed to expand their company so they wanted listed to gain cash flow. They were successful and the company boomed very well and is now sitting as one of the top companies in construction.

- *Liviero*

Liviero needed financing to buy major plant equipment as they were growing rapidly from the World Cup sub-contract works they were doing.

- *Industry Summary*

Every construction company needs healthy cash flow as the construction industry is a cash generating business. However, with regards to the World Cup, Government was paying because in order to get the work done and preventing the sites to shut down, they needed to pay. The literature mentions that the responsibility of the government was to make sure the projects were executed. So even in issues of strike where the employees demanded increases in wages, the government had to pay the construction companies more to pay the staff so as not to halt the various projects. This corresponds to the literature by Cottle (2010). If the government did not pay to get the projects completed on time, there would be more severe issues. FIFA had the right to take the event away from South Africa, causing an embarrassment to the country all over the world as one of the government's goals was to improve the image of the country as mentioned in the literature review.

The smaller companies that sub-contracted for the major companies needed to get cash flow not only because they needed to expand, but also because being a sub-contractor, they needed to wait for the cash from the main contractor. In the literature review, Warszawski (1996) mentions that finance are a vital aspect in strategic planning. Without finance, it is difficult to invest in developing the company.

After the World Cup, in order for the companies to get the same turnover, an organisation will need to get many small jobs rather than the few massive jobs

and these smaller jobs are not as profitable. So the current problem is that there is a shortage of cash flow in the market. This has been the biggest problem post World Cup. As seen in Graph 1 above, it shows the drop in cash flow for all companies after 2010.

5.3.6 *Closure*

This theme was derived for the research in order to see how these companies felt they closed off with regards to the World Cup.

- *Group Five*

Group Five closed off the road and stadium contracts very well. The negative issues were the manufacturing companies they bought. They made big losses with regards to the purchasing of the companies. They are still trying to settle some of the commercial buildings they constructed. The difficulty is getting the government to pay their part. However, it is largely settled and they made provisions in the case of bad debts.

- *Aveng Grinaker-LTA*

All projects closed well even though the consultants were not geared up for something that size. The Nelson Mandela Bay Stadium had 25 different consulting companies. It was a “mess” and Aveng Grinaker-LTA ended up running it in order to complete the project on time. Finance was not an issue as they had the highest turn over that time.

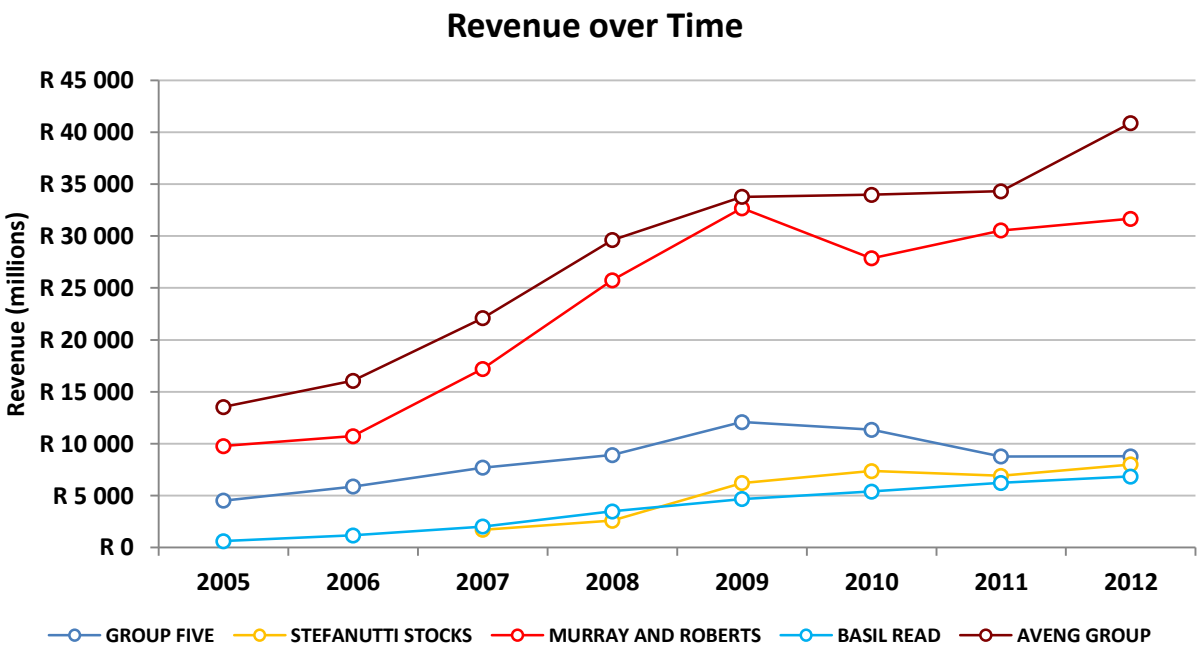
Aveng Grinaker-LTA did not close off well as they retrenched a lot of staff. They went down from late 2010 onwards when the whole board changed and currently has no construction personnel involved in it. These new managers opposed their systems, controls, mark-ups, etc. This resulted in a whole turn around on all management, with no staff remaining for the reasons mentioned above.

❖ *Basil Read*

The projects were all completed before the World Cup. They also had further assistance from their clients as they wanted the projects completed and paid premiums to get them completed.

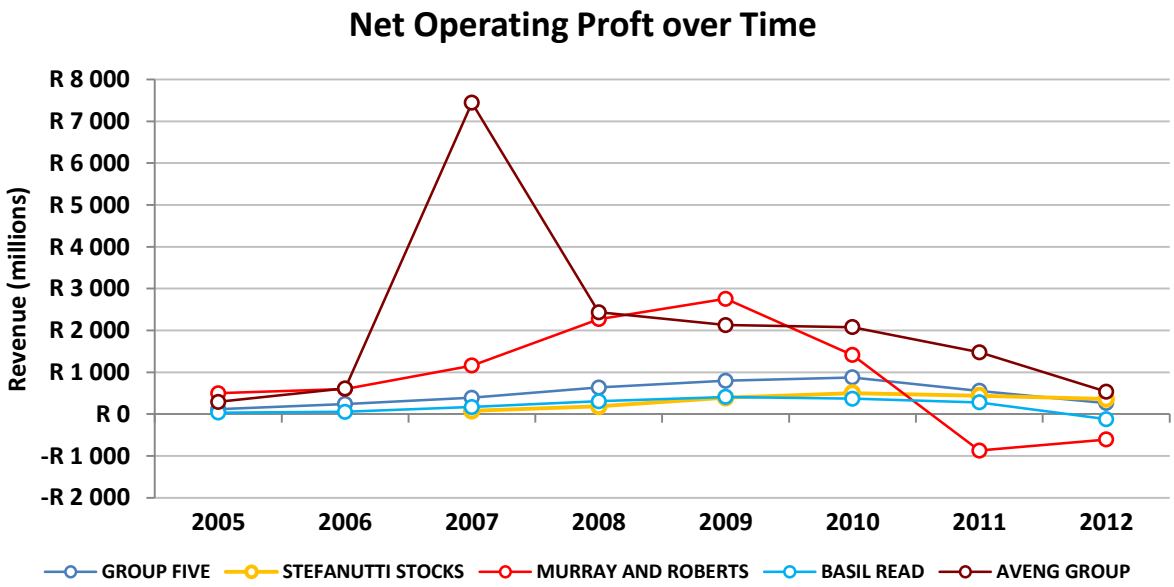
The acquisitions resulted to Basil Read growing and their turnover increasing. After the World Cup, they were still under pressure to maintain their turn over, so the turnover did not drop after the World Cup but, in order to maintain turnover, they had to sacrifice profitability. Graph 2 shows the increase in turnover during the preparation of the World Cup. After the World Cup, the turnover has dropped slightly but they are maintaining it. However, Graph 3 shows the decrease in profits after the World Cup which shows the sacrifice in profitability in order to maintain revenues.

Graph 2



Source: Companies' financial statements

Graph 3



Source: Companies' financial statements

- *Murray and Roberts*

Murray and Roberts projects were completed on time. The stadium and airport closed off well. The Gautrain has not yet closed as they have other problems to resolve like leaks and other defects. Further, the claims and commercial side is still going to take a long time to get resolved as the project cost three times more the original budget.

- *Stefanutti Stocks*

Stefanutti Stocks was not that involved with the World Cup so the closure went according to the major constructions closure. Stefanutti Stock carried on with their general business as before the World Cup.

- *Liviero*

The Building Division of Liviero retrenched a few people and was affected by the general recession. The Civil Division was managed well into a suitable business and never retrenched anyone. They completed the works on time but battled getting cash flow from being a sub-contractor. The World Cup triggered the growth of the civil sector and they managed to keep that growth sustainable. They grew at a rate of 20% a year over the last three years. Before the World

Cup, the civil division's turnover was R30 million a year and has now moved to over R600 million and Liviero as a whole company annual turnover is R1.5 billion (Liviero, 2014). This is a rapid growth rate for a company of that size.

- *Industry Summary*

The FIFA World Cup projects were all closed off well and in a timely manner. This was largely attributed to their partnerships with international companies and the regulations set out by FIFA, and the construction industry turnover increased which resulted in high profits for the industry. This argument is supported in the literature review where Cottle (2010) mentions that the construction companies made significant revenues and profits. Graphs 2 and 3 show the increase in revenue and profits during the preparation of the World Cup.

Retrenchment was a big issue in the industry. The literature review agrees with this as over the duration of the preparation of the World Cup over 100,000 jobs were lost in the construction industry.

For some companies, the finance has not been finalised successfully as they still have unresolved issues. This was due to unorganised documentation, issues around the authorisation of design, the increase of construction costs and the Competition Commission Board.

The closure of smaller construction companies was successful as they had substantial growth with the amount of work the completed.

5.4 Brazil

This section will discuss some issues Brazil is facing with the preparation of hosting of the 2014 FIFA World Cup and then will compare with what South Africa did in order to assist other developing countries that will host a major sporting event.

According to many articles and news feeds, Brazil is involved in disputes and delays over the preparations for the 2014 FIFA World Cup.

- *Projects*

Like South Africa, the main construction projects that Brazil needed to focus on for the preparation of the FIFA World Cup were the construction of stadiums and transportation infrastructure. The Brazilian construction industry had to complete the construction and refurbishment of 12 stadiums, 37 transport projects, 13 airports and 7 ports. This is substantially higher than what South Africa needed to develop (Cottle, do Canto Capela, & Meirinho, 2013).

Brazil is six time larger than South Africa and over 15 times bigger than other hosting European countries and the government decided to choose 12 hosting cities far apart from each other, some cities ranging over 2000km apart (de Melo, 2011). This required the development of unnecessary stadiums and infrastructure than if they had grouped the hosting cities together. This has put severe pressure on time, quality and cost for the country.

De Melo (2011) mentions that Brazil is inefficient and incapable of providing good transportation services while South Africa has a better infrastructure which is well maintained. 70% of Brazils road are in terrible condition. This requires a large amount of investment to construct and refurbish roads in order to utilise them for the World Cup but not much has been implemented as it takes a long time for a proposal to be finalised as it is under the continuous threat of law suits by environmental agencies and public attorneys.

Poor planning (i.e. not grouping the hosting cities together) and low investment for upgrading airports creates a deficiency of the airport capacity at the hosting cities to accommodate the tourists (Gibson, 2014). The construction of one new airport and upgrading two existing airports in South Africa improved flights and services to passengers and offered flights early hours of the morning (de Melo, 2011).

Given the long distance between cities and the operating conditions of transportations systems, traveling between hosting cities of the 2014 FIFA World Cup will be expensive and long (de Melo, 2011).

- *Objectives*

For South Africa, *Time* was the core objective for the preparation of the 2010 FIFA World Cup. However, Brazil only decided on the hosting of cities two years after getting awarded the 2014 FIFA World Cup due to political disputes (Gibson, 2014). This resulted in construction companies having less time to construct stadiums and other infrastructure. Antunes (2013) mentions that out of six stadiums that were meant to host the Confederation Cup, only two stadiums were completed on time and The Local Organizing Committee (LOC) for the World Cup said that other area of concern was urban mobility, accommodation, safety and telecommunications. Brazil had launched World Cup infrastructure projects to develop new and renovate old airports, build roads and transit systems and the restoration and construction of new white-elephant venues. Most of these will probably not be completed by the time of the World Cup and raises concerns if Brazil will be ready with such levels of disorganisation and if the government has the capacity to deliver on time. In May 2012 only 25% of the transportation projects had completed the tender process and 41% of the 2014 World Cup project has not started (Cottle, do Canto Capela, & Meirinho, 2013). This shows poor planning of the Brazilian government. The government also have admitted that that the airports will not be completed in time for the World Cup (Gibson, 2014). Other issues causing delays were safety on site, notably the death of two construction workers at the stadiums in Sao Paulo which stopped the site (Gibson, 2014).

Quality and Safety was South African construction companies' important objective while FIFA had concerns with Brazil's. The quality of the Brazilian stadiums and the safety of the people is an issue as Brazil had incidents where games have been called off by the local justice due to safety concerns associated to the stadiums construction and refurbishment plans (Antunes, 2013). Furthermore, pieces of the stadium roof in Belo Horizonte fell into the stands during a storm just hours before a game (Gibson, 2014).

South Africa and Brazil both had poor *Cost* budgeting and cost overruns for the construction of the infrastructure of the FIFA World Cup. Antunes (2013) mentions that Brazil initially wanted to spend less than a $1 billion to renovate

seven stadiums and build five more. Brazil recalculated it to cost over $3.5billion which does not include the costs for infrastructure improvements. This is three times more then what South Africa spent on their infrastructure for the 2010 FIFA World Cup. What increased the cost were mainly the unprepared arrangements between private companies and local politicians. As there was a delay in the start date for the construction for the World Cup the Federal Government had to speed up their procedures for approving tenders, Brazilian construction companies used this to their advantage to increase their tender costs, resulting in huge cost overruns (Cottle, do Canto Capela, & Meirinho, 2013).

- *Personnel*

South Africa hired a large amount of construction workers to help assist with the major developments of the World Cup but with the delays, Brazil's unemployment rate increased to 5.6% in February 2013 (Cottle, do Canto Capela, & Meirinho, 2013). The construction industry hires approximately 2.5million formal workers and 1.5million informal workers (Cottle, do Canto Capela, & Meirinho, 2013).

South Africa and Brazil both had assistance within international firms to construct the FIFA World Cup related infrastructure. Brazil appointed GMP, a German architectural firm to assist them with these projects (Cottle, do Canto Capela, & Meirinho, 2013).

- *Closure*

As the 2014 FIFA World Cup has not yet happened, the closures cannot yet be finalised but some information can be mentioned that has occurred already.

Construction companies from both countries, South Africa and Brazil, made significant profits with the construction of the World Cup projects. Engevix profits increased to 256% in 2011, Andrade Gutierrez profits increased to 23% in 2010 and 28% in 2011, Odebrecht profits increased to 148% in 2010 (Cottle, do Canto Capela, & Meirinho, 2013).

As mentioned above, Brazil is under pressure with completing the stadiums in time and other infrastructures will not be completed by the 2014 FIFA World Cup. South Africa completed the required projects on time and made alternatives for some of the road works that has not yet been completed.

Both South Africa and Brazil construction companies are under investigation with the Competition Commission Board with collusion to increase cost process up (Cottle et al., 2013).

5.5 Conclusion

As mentioned in the literature review, there are both positive and negative impacts following such a large event. The high investment prior to the World Cup will have created more sustainable structures with long lasting effects, while the sudden decrease in production and construction would create a potential vacuum and a slowdown of the industry.

The main project the construction industry was involved with was the development of stadiums, roads and other transportation. This was vital as the country needed that infrastructure to host the World Cup. There were other services the literature mentions that were need such as parking areas, supplementary commercial and recreational activities and well organised transportation networks for to cater for vast crowds (Erten & Özfiliz, 2006).

The construction industry prior to the World Cup focused on time and quality being their main objectives and post-World Cup it turned around to cost and cash flow.

In order to manage the shortfall in supply during the World Cup, construction companies had two strategies to counter the potentially large increases in prices. They could either continue using the same supply chains and take the risk of increased prices in the short term or could mitigate this risk by purchasing manufacturing companies and taking a long term risk. The study shows that the latter option did not work well, as the rushed acquisitions of companies lead to large inefficiencies, making them unsustainable in the long run post World Cup.

There were four strategies companies used with the change in managerial structure. These strategies were used to manage the environmental change of the industry. Companies either kept the same management structure or got assistance from well experienced international companies which worked well. Other companies changed the managerial team which changed the structure completely and this resulted to major problem. The smaller developing companies hired new senior members to change their managerial structure to accommodate the growth.

Every construction company needs healthy cash flow as the construction industry is a cash generating business. However, with regards to the World Cup, Government was paying because in order to get the work done and preventing the sites shutting down, they needed to pay

The FIFA World Cup projects were all closed off well and within the time period. The construction companies' turnover and profits increased large. However after the World Cup, the turnover had to be maintained but the profits dropped drastically.

Other service deliveries slipped as the government was more interested in saving face of South Africa to the external world rather than concentrating on the service development. From the literature, Cottle (2010) argues that the preparation of the World Cup created back log in service delivery. Power stations, water treatment plants and housing were held back as the government over spent their budget by R20 billion which limited the budget for other services.

The closure of smaller construction companies were very well as they had substantial growth with the amount of work needed. This allowed them to build on their brand, increase their revenues and develop a successful company.

South Africa and Brazil are both developing countries that were awarded the hosting of the FIFA World Cup in 2010 and 2014 respectively. However, South Africa managed to host the World Cup successfully and Brazil is having trouble being prepared for the event. These are due to many factors that South Africa

managed to mitigate. These factors were vast distance of hosting cities which created constrains to the time, quality and cost factor for the country.

South Africa and Brazil both had poor cost budgeting and cost overruns for the construction of the infrastructure of the FIFA World Cup and construction companies from both countries made significant amount of profits with the construction of the World Cup projects.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This final chapter will summarise the findings and the conclusions with regards to the research particularly with the context that has been specified in chapter 1. Then recommendations will be provided to the stakeholders on the outcome of the research of strategies implemented by construction companies prior and post-World Cup. Finally, suggestions for further research will be made.

6.2 Conclusion of the Study

It was evident from both the literature review and analysis that major sporting events such as the FIFA World Cup play an important role in the construction industry. Construction companies used the general strategies mentioned in the findings to assist them with the environmental change in the country.

The strategies that construction companies followed were the basic steps of a strategic framework. Construction companies looked into scope of work, resources and capabilities, competitive advantage, synergy and the external environment.

The scope of work in the construction was major civil building works such and stadiums and transformational systems. This was vital as the country needed that infrastructure to host the World Cup. Other services were needed such as parking areas, supplementary commercial and recreational activities and well organised transportation networks for to cater for vast crowds.

The resources and competence that were discussed were divided into various elements; these elements are construction and project management, procurement, personnel and knowledge, and finance.

Construction and project management teams discussed the objectives the construction companies would concentrate on before and after the World Cup. The construction industry prior to the World Cup focused on time and quality

being their main objectives and post-World Cup it turned around to cost and cash flow.

Procurement discusses whether construction companies needed to purchase new manufacturing companies and if they changed the procurement systems and procedures in order to manage the shortfall in supply and a large amount of resources being purchased during the World Cup boom. Construction companies had two strategies to counter the potentially large increases in prices. They could either continue using the same supply chains and take the risk of increased prices in the short term or could mitigate this risk by purchasing manufacturing companies and taking a long term risk. The study shows that the latter option did not work well, as the rushed acquisitions of companies lead to large inefficiencies, making them unsustainable in the long run post World Cup. Generally none of the construction companies changed their procedures and systems of the procurement structure.

The elements personnel and knowledge in the study focuses on the change in managerial structure, the hiring of new personnel and if additional training was needed. There were four strategies companies used with the change in managerial structure. These strategies were used to manage the environmental change of the industry. Company's either kept the same management structure or got assistance from well experienced international companies which worked well. Other companies changed the managerial team which changed the structure completely and this resulted to major problem. The smaller developing companies hired new senior members to change their managerial structure to accommodate the growth.

Construction companies needed to hire new managers and skilled employees in order to assist with the projects involved with the preparation of the World Cup. Some companies had joint ventures with well-known international construction companies to help them with the development of the projects. They also hired temporary engineers and construction workers from all over the world in order to increase their employment to meet the non-negotiable deadlines, and to get the correct design and quality for each project. Some major construction companies acquired the smaller companies in order to increase their resources

and increases their personnel as they kept the smaller companies' employees. The smaller construction companies that were growing head hunted the experienced managers and employees from the other major companies in order to use their expertise to expand. All these strategies worked well as all required projects were completed on time for the world cup and projects that were not completed were put aside neatly and safely for the duration of the 2010 FIFA World Cup.

Some companies believed that additional training was needed to increase their skill for the preparation of the World Cup and other companies felt that there was no time to train so they just hired the skilled employees.

Every construction company needs healthy cash flow as the construction industry is a cash generating business. However, with regards to the World Cup, Government was paying because in order to get the work done and preventing the sites shutting down, they needed to pay

Competitive advantage was not discussed in this study as it is a sensitive matter with regards to the Competition Commission Board.

The FIFA World Cup became a successful event as all projects were closed off well and within the time period. It was also a success to construction companies as they made substantial turnover and profits. However after the World Cup, the turnover had to be maintained but the profits dropped drastically. Smaller construction companies benefitted very well as they had substantial growth with the amount of work needed. This allowed them to build on their brand, increase their revenues and develop a successful company.

The external environment changed for the country twice over a five years span. Prior to 2010 FIFA World Cup, the country was experiencing an environment with a sudden urge to rush various project and infrastructure as time was of the essence. It was the case where the client, FIFA, said that if the projects and the infrastructure of the country are not ready by a specific deadline, then the event will be taken away from the country. This made everyone get involved and decisions were made. When they had complications like strikes, they had all sorts of high positioned people in the government to get involved as they

needed the projects to be completed. The unions were pulled in to work with the companies to get the works done. Labourers didn't have a say, they fired them when they went on strike and they got new people from all over to finish of the job. The whole world was watching and with the embarrassment factor and those pressures created an environment that could make things happen.

After the World Cup, the environment has changed again. Now the problem is that South Africa cannot even deliver simple projects such as power stations. The team has not changed. What did change were the environment, the need to deliver and what the priorities are of the delivery. At that time, the roads and stadiums had to be finished, now the priorities have changed and projects are not getting delivered. Before the World Cup decisions were made because then it was more important to take a wrong decision than not taking a decision at all. Now after the World Cup, government or any organisation do not make decision and they sit with problems in communities, taking substantially longer to resolve issues leading to inaction.

South Africa and Brazil are both developing countries that were awarded to host the FIFA World Cup in 2010 and 2014 respectively. However, South Africa managed to host the World Cup successfully and Brazil is having trouble to be prepared for the event. These are due to many factors that South Africa managed to mitigate. The vast distance of hosting cities creates a requirement for Brazil to develop unnecessary stadiums and infrastructure than they would have if they grouped the hosting cities together which constrains the time, quality and cost factor for the country. With the government's poor planning and late decisions created stress for construction companies to complete project on time and with excellent quality and safety for the event.

South Africa and Brazil both had poor Cost budgeting and cost overruns for the construction of the infrastructure of the FIFA World Cup. But Brazil stadiums cost three times more than what South Africa's cost. What increased the cost were mainly the unprepared arrangements between private companies and local politicians. Construction companies from both countries, South Africa and Brazil, made significant amount of profits with the construction of the World Cup projects.

6.3 Recommendations

6.3.1 *Major construction companies*

The recommendation to major construction companies on issues that need focus prior to and post the major sporting events are:

- The major construction companies should form consortiums with each other, smaller local construction companies or international construction companies to assist them in managing with advanced and technical construction projects.
- Employment, in terms of correct blend of skilled labour and management. A long term view of the required employment mix is important, so as not to over-hire in the short term, to the detriment of the long term vision post-event.
- In order to mitigate costs and cash flow problems after the World Cup, allow provisions from all the substantial profits that were made
- Be wary of the long term effects of purchasing manufacturing companies to mitigate the risks of increased demand and inflated prices of materials in the short term. It may be more efficient to bare the premium prices in the short term, while focusing on core business functions. This is because companies that purchased other supply companies suffered severe losses with acquiring manufacturing companies as they were not managed well because it was not their core business.
- When there are major events, do not try change your managing structure. Keep your core team, as this is the time when you need the experienced team to control major projects. Do not bring in senior managers that have little prior experience in construction, as the cost to train will far outweigh the benefits of a new view. In the past, this has resulted in losses to key employees to other construction companies as they do not agree with the new management.
- In order to complete projects on time and with high standards, hire the required personnel from all over the world to assist with World Cup production, design and time demands. Make sure they are hired on a

temporary basis to mitigate the problem of being over staffed once the projects are completed.

- Acquire small companies in order to gain resources so you can manage to complete these projects to the required standards and on time. A lot of small companies that are doing small works will be absorbed and the resources will be re-employed, capitalising on large economies of scale. This results in increases of new personnel as they keep the smaller companies' employees.
- In order to avoid administrative delays, manage all documentation correctly so they do not need to be re-assessed. This will prevent issues such as late payments, causing cash flow problems and other timeline issues.

6.3.2 *Developing construction companies*

In order for developing construction companies to grow during major sporting events such as FIFA World Cup, they need to:

- Exploit other opportunities where major construction companies left a gap in the market.
- Tender for sub-contracting work for major projects so the company has the potential to grow.
- Where there are major events like the World Cup, use such opportunities to develop a name for your company so you can be exposed to the market.
- Head hunt and recruit experienced senior managers in order to control structure and systems in time of large growth from small to large corporate structures.

6.3.3 *Government for developing countries*

In order to host major sporting events such as FIFA World Cup successfully, the government for developing countries should keep in mind:

- Award projects in consortiums so the project can be completed on time with the specified quality
- Spread out the works to all companies so they do not have an over load of work.
- Do not neglect other utilisation infrastructure as it may create back log in service delivery. These are imperative for developing countries to construct. Do not over spend in the preparation of these events as it limits the budget for other services.
- Plan more accurate costing budgets as these may cause issues to your finance later.
- Allocate hosting cities in less developed areas so these cities have an opportunity to expand by creating infrastructures
- Do not choose hosting cities far from each other as the country has poor infrastructure and will cause transportation problems. This will also result in high cost for the infrastructure.
- Try choosing the minimum amount of hosting cities with the minimum amount of stadiums to save cost. The stadiums in a developing country may not be utilised fully and will cause unnecessary maintenance cost or abandonment issues in the future
- Make decisions and planning such as hosting cities and infrastructure issues quickly in order not to delay the construction period of the event. Furthermore, this will create irrational decisions to speed up their procedures such as approving tenders causing construction companies to increase their tender costs, resulting in huge cost overruns.

6.4 Suggestions for Further Research

While the rest of the world was struggling with the financial recession, South Africa managed not to be effected fully. How did a major sporting event help a country maintain their financial position during a global recession?

Once the stadiums were built, South Africa does not have the sports capacity to utilise these stadiums from the World Cup. How is South Africa going to maintain these stadiums as they are causing a loss in the country's finance?

Why do developing countries spend a large amount of capital to deliver extravagant sports facilities that have little use after the World Cup? Is it worth it for developing countries with social problems to have sophisticated and advanced sports facilities?

Brazil and South Africa are developing countries. They do not have the advanced transport, telecommunications, energy and sanitation infrastructure as the developing countries have. They have limited public health care, limited public education systems and limited security to their people. Is it wise for developing countries to ignore their primary development and host major sporting events?

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APPENDIX A

Letter to Respondents

Dear Respondents

I am completing an MBA at The University of Witwatersrand, Johannesburg (Wits). My MBA thesis is on the review of strategies implemented by major South African construction companies before and after the 2010 FIFA World Cup. Data will be needed to be gathered and I would be grateful if I could arrange a 30minute interview with you to understand the strategy implication around the effect of the World Cup. I understand you are very busy and your agreement to contribute to my research is greatly appreciated.

All information obtained for the purpose of this thesis will remain confidential and will only be used for academic purposes.

I will be available to meet with you at a location and time of your convenience.

Thank you

Yours sincerely,

Sergio Panayi

Wits MBA student

APPENDIX B

Actual Research Instrument

Construction

1. What were the main projects the company undertook prior and after the World Cup?
2. What are the objectives of the projects prior and post-World Cup? (Cost, productivity speed, flexibility, quality)

Procurement

3. Prior the World Cup, did the company need to produce materials, have partial or total ownership with external suppliers?
    a. If so, is it only for the companies own use?
    b. What happened to the production and external suppliers after the World Cup?
4. Was there a change in the way the company purchased products before and after the World Cup?
    a. What were the changes?

Personnel

5. Where there changes in the managerial structure before and after the world cup?
    a. If so, what were they and why?
6. Did the company need to hire new personnel to assist with the effect after the World Cup? If they did, what where the criteria, education and experience they were looking for?
7. Did the company have training programs to assist with these effects?

Finance

8. Did the company have to find finance for the expansion prior to the World Cup?
9. How were these expansions managed at the closure of the World Cup?

APPENDIX C

Consistency Matrix

Research problem: To analyse the impact of the 2010 FIFA World Cup and to assess the changes made by major South African construction companies to core strategies post-World Cup.					
Problem	**Literature Review**	**Research Questions**	**Source of Data**	**Type of Data**	**Analysis**
To analyse and present the core strategies implemented by major South African construction companies and to assess the changes before and after the 2010 FIFA World Cup	(Cottle, 2010) (Allmers & Maennig, 2009) (Mabugu & Mohamed, 2008) (Cornelissen & Maennig, 2010) (Bohlmann & Van Heerden, 2008) (Pillay & Bass, 2008) (Betts & Ofori, 1992) (Porter, 1996) (Thompson & Martin, 2010) (Ramsay, 1989) (Collis & Rukstad, 2008) (Warszawski, 1996) (Chinowsky & Meredith, 2000)	How did the major South African construction companies adapt to changes in the environment and, consequently, how did the strategies change before and after the FIFA 2010 World Cup?	Literature review Semi structured interview Company documents (annual reports)	Qualitative Data	Thematic data analysis (Boyatzis, 1998).