



## **THE ROLE OF SERVICESCAPES IN SPECTATORS' ATTENDANCE AT SELECTED SOCCER STADIA**

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**M Tech: Marketing**

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## DEDICATION

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**I thank God Almighty for giving me strength and determination, as well as guidance in conducting this study, regardless of complications.**

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## ABSTRACT

Spectators are key constituents of sport organisations' success as a large spectator base attracts sponsors. Once a spectator enters a sport stadium, the physical environment and the experience of the game may lead to a relationship with the environment and a team resulting in the spectator either revisiting a sport stadium, recommending the venue to others or avoiding the environment. Spectator attendance at sports stadia is also a primary sources of revenue for sport events. Stadium attendance also brings different benefits for spectators as a stadium can add excitement and atmosphere to an event experience and opportunities for socialisation within the environment. The main purpose of this study was to determine the role of servicescapes in spectators' attendance at selected sport stadiums in Gauteng. Since sport depends on the facility for its production and service delivery, place (distribution) is an essential component in the marketing mix, as it can lead to approach or avoidance behaviours.

The study was conducted at two different stadiums namely (Soccer City (*formerly FNB*) and Orlando stadiums) in the Gauteng Province. A quantitative research approach was used. A structured questionnaire was administered to 200 spectators using non-probability convenience sampling. Data from a total of 170 completed questionnaires were analysed.

Data analysis was undertaken in two phases: firstly by pilot testing the questionnaire and secondly by the consolidation of the main survey findings through a more detailed analysis. The data was analysed with a view to address the objectives of the study. In order to ensure high quality analysis, all evidence was considered and all major rival interpretations were also addressed. Factor analysis was used to determine the various servicescape dimensions. Seven factors of servicescape were extracted, namely scoreboard quality, refreshment provisioning, facility aesthetics, space allocation, stadium accessibility, seating comfort and stadium cleanliness. The findings in this study indicate that there is significant positive correlation between the seven factors and future attendance and also a desire to stay within the stadium. The regression analysis reported significant predictive relationships between the stadium servicescape, future attendance and also a desire to stay within the stadium. Regression models depict

that spatial allocation and functionality followed by stadia cleanliness made the greatest impact on spectators' desire to stay within a servicescape and seating comfort and facility aesthetics significantly contributes to future patronage.

Recommendations in this study suggest that stadium management and sport marketers should not concentrate on one factor but on several servicescape factors in order to maintain spectator patronage on sport stadium. By fulfilling spectators' expectations, sport marketers and stadium management should ensure that spectators are satisfied with the stadium facilities and the physical environment to maintain their retention and loyalty to the stadium.

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## **CHAPTER 1**

### **INTRODUCTION AND PROBLEM ORIENTATION**

#### **1.1 INTRODUCTION AND BACKGROUND OF THE STUDY**

This chapter comprises the background and scope of the study. The problem statement and research objectives are outlined. In addition the research methodology is briefly delineated.

Spectators are key constituents of sports organisations' success as a large spectator base attracts sponsors (Garland, McPherson & Haughey, 2004:2). Once a spectator enters a sports stadium, the physical environment and the experience of the game may lead to a relationship with the environment and a team resulting in the spectator either revisiting a sports stadium, recommending the venue to others or avoiding the environment (Sven & Yassim, 2007:43). By fulfilling spectators' expectations, sport marketers can ensure that spectators are satisfied with their game experiences and the surroundings, which in turn would assist in spectator retention.

Environmental psychologists have determined that physical environment has an effect on human behaviour and that it influences the behaviour of individuals in a spectator setting (Countryman & Jang, 2006:534). Mehrabian and Russell (1974) defined environmental psychology as the direct impact of physical stimuli on human emotions and the effect of physical stimuli on a variety of behaviour such as work performance or social interactions. Physical environments create emotional responses, which in turn elicit either approach or avoidance behaviours in an environment.

The importance of the service environment to the growth and long-term survival of every organisation was recognized as far back as 1970 by Kotler (1973:61) who asserted that the servicescape might in the future become the major form of competition. Bitner (1992:59) coined the term "servicescape" in reference to the physical surroundings as fashioned by service organisations to facilitate the provision of service offerings to spectators which comprise both tangible aspects such as buildings, decorations and fixtures and intangible aspects such as temperature, colour, scent and music which make up the service experience (Hoffman & Turley, 2002:42).

Servicescape variables are an essential part of the service encountered in the delivery process because spectators cannot see a service as such. Hence, variables associated with the service serve as cues for the invisible services. Kotler (1973:63) contends that each market is made up of customers with varying tastes. To be competitive, servicescapes should be based on what a target

audience seeks from the sports experience and the ability of the servicescape to compete with servicescapes of competitors.

## **1.2. PROBLEM STATEMENT**

Servicescape is rich in cues (Harris & Ezeh, 2007:61). Even before the consumption of a service, spectators commonly look for cues in an environment. These cues are influential in spectators' responses (Bitner, 1992:57). Hence, the lack of physical evidence, over-promising and incompatible or inconsistent servicescape may cause distress, displeasure, gloom and non-arousal in spectators that may lead to avoidance behaviour. As a result, a spectator may make a decision not to stay, explore or affiliate with an environment.

Leisure and sport services require spectators to spend extended periods of time in the physical surroundings of the service provider (Wakefield & Blodgett, 1996:45). Servicescape plays an important role in determining whether or not spectators are satisfied, which in turn influences how long they desire to stay in the facility and whether or not they intend to re-patronise the leisure facility. If spectators perceive the servicescape to be of low or poor quality, they become less interested to return to the facility or to visit the place at all (Wakefield & Blodgett, 1994:72).

Sports organisations rely on the “field of dreams”, “if we built it they will come” mentality (Garland *et al.*, 2000:1). In South Africa, there is a gap in research on servicescapes. There is a surprising lack of empirical or theoretical research addressing the role of physical surroundings in a sport consumption setting. Managers continually plan, build, change and control sport stadia's' physical surroundings but frequently the impact of a specific design or design change on ultimate users (spectators) of the facility is not fully understood. Therefore, within a South African context, this research study is essential especially in the light of the FIFA 2010 World Cup <sup>TM</sup> that was staged and new stadia that were either built or renovated.

## **1.3 OBJECTIVES OF THE STUDY**

### **1.3.1 Primary objective**



The main purpose of this study is to determine the role of servicescapes in spectators' attendance at sports stadia in Gauteng.

### **1.3.2 Theoretical objectives**

In order to achieve the primary objective, the following theoretical objectives were formulated for the study:

- Conduct a literature review on atmospherics and servicescapes.
- Conduct a literature review on the roles and components of servicescapes in service encounters.
- Conduct a literature review on stadia servicescapes.
- Conduct a literature review on servicescapes and future attendance at sport stadia.

### **1.3.3 Empirical objectives**

- To identify the various elements of servicescapes in sports stadia.
- To examine the relationship between the servicescapes dimensions with the desire to stay and future attendance at sports stadia.

## **1.4 RESEARCH DESIGN AND METHODOLOGY**

Two methods of research were undertaken in this study namely, a literature review and an empirical study.

### **1.4.1 Literature review**

A literature review on the elements and roles of servicescapes on spectator attendance, dimensions of servicescape, internal responses and behavioural responses to servicescapes was undertaken. The study utilised a wide range of reference materials, which include textbooks on servicescape and atmospherics, journals and the Internet.

### **1.4.2 Empirical study**

In designing the empirical study, a quantitative research approach was adopted. Quantitative research is the method that seeks to quantify data and typically applies some form of statistical analysis (Creswell, 2003:95). Malhotra (2004:137) emphasised that in quantitative research a large number of representative cases are used, the data collection is structured, the data analysis is statistical and the outcome recommends a final course of action. The following steps outlined below by Malhotra (2004:329) were used in developing the sampling procedure for the empirical study.

#### **1.4.2.1 Target population**

Target population is the entire set of objects or people which is the focus of a research and about which the researcher wants to determine some characteristics i.e. the complete set of events, people or things to which the research findings are to be applied (Bless, Smith & Kagee, 2006:98). The target population in this study was restricted to spectators residing in the Gauteng province who attend soccer games at the FNB (Soccer city) and Orlando stadia. The population comprised spectators, both male and female.

#### **1.4.2.2 Sampling technique**

A non-probability sampling technique was used in the study. With non-probability sampling, the chances of selection for the various elements in the population are unknown (McDaniel & Gates, 2002:67). The nature of the research study necessitated the use of convenience sampling. Convenience sampling is a sampling method primarily used for reasons of convenience

(McDaniel & Gates, 2002:67). Convenience samples are samples drawn at the convenience of the researcher (Bush & Burns, 2006:345).

### **1.4.2.3 Sample size**

Sample size refers to the number of elements to be included in the study (Malhotra, 2004:318). Determining a sample size that is adequate is complicated. Based on past research studies by Garland *et al.* (2004:318), Mcpherson, Garland and Haughey (2000:745), Eroglu, Machleit and Barr (2005:1148), Hill and Green (2000:150), Mattila and Wirtz (2006:229) and Gentry and Burns (2001:73) a sample size of between 150-200 respondents was deemed adequate.

### **1.4.2.4 Methods of data collection and the measuring instrument**

A survey method approach was used because spectators were in a position to observe and experience the servicescape directly and offer more valid responses regarding the stadium environment. Data was collected using face-to-face interviews through a structured questionnaire. The questionnaire comprised five sections.

**Section A:** covered servicescape elements, to elicit information on how the servicescape affects spectators' attendance at stadia.

**Section B:** covered aspects relating to desire to stay at stadia.

**Section C:** covered aspects on perceived over-crowding.

**Section D:** covered aspects on future intentions of spectators to attend the stadium.

**Section E:** covered aspects relating to demographic data of spectators.

## **1.5 STATISTICAL ANALYSIS**

Descriptive statistics were used to analyse the composition of the sample. Statistical techniques that were employed in the descriptive analysis included central tendency (mean) and distribution (frequency table of distribution). Factor analysis was used to establish specific servicescape dimensions. Correlations and regression analysis were also computed to examine the relationship

among variables. Reliability and validity of the questionnaire were also established. The Statistical Package for Social Sciences (SPSS – Version 17.0 for windows) was used to analyse the data.

## **1.6 DEFINITIONS AND TERMINOLOGY**

### **1.6.1 Ambient conditions**

Ambient conditions are identified as factors that affect perception of human responses to the environment (Bitner, 1992:65). McGoldrick and Pieros (1998:176) define ambient factors or conditions as background conditions that exist below the level of immediate awareness of spectators, and typically draw attention to themselves only when they are absent or pleasant e.g. temperature and noise levels.

### **1.6.2 Analysis of variance (ANOVA)**

Analysis of variance (ANOVA) is a statistical technique for examining the differences among means for two or more populations (Malhotra & Peterson, 2006:476).

### **1.6.3 Approach-avoidance behaviour**

Approach behaviour refers to moving toward and avoidance behaviour refers to moving away from various environments and stimuli (Olson & Peter, 2005:485). Elliot (2006:112) defines approach behaviour as the energisation or the direction of behaviour toward the object, event or possibilities. Approach behaviour is a positive stimulus whereas avoidance behaviour is a negative stimulus.

### **1.6.4 Atmospherics**

Sullivan and Adcock (2002:149) define atmospherics as the effort to design a service provider's environment to produce emotional effects in the spectator that enhance attendance probability.

Atmospheric elements are often viewed as background or a peripheral stimulus which is intended to influence spectators on a more subconscious level.

### **1.6.5 Correlation analysis**

Correlation analysis is the analysis of the degree to which changes in one variable are associated with changes in another (McDaniel & Gates, 2002: 560). According to Malhotra and Birks (2007:573) correlation is defined as the simplest way to understand the association between two metric variables.

### **1.6.6 Crowding**

Crowding is a state of psychological stress that results when one's demand for space exceeds the supply (Machleit *et al.*, 2000:29).

### **1.6.7 Environmental psychology**

Environmental psychology deals with behaviour in relation to the physical environment. Environmental psychology refers to the use of physical environments and their influence on the perception and behaviour of individuals (Hoffman & Bateson, 2002:229). De Young (1999:1) defines environmental psychology as the interrelationship between environments and human behaviour as people tend to seek out places where they feel competent and confident; places where they can make sense of the environment whilst also being engaged by it.

### **1.6.8 Facility aesthetics**

Facility aesthetics refers to the interior and exterior appearance and décor of the stadium that contribute to its attractiveness. According to Wakefield, Blodgett and Sloan, (1996:19) facility aesthetics refers to the physical elements which spectators view to evaluate a stadium's artistic quality. These elements are the extras that contribute to a spectators' sense of pleasure when watching a game (Harris & Ezeh, 2007:65).

### **1.6.9 Factor analysis**

Maull, Tranfield and Maull (2003:609) state that the purpose of factor analysis is to detect underlying patterns of correlation in data, i.e. for grouping of variables and for reducing a large number of variables to a smaller number of components. Factor analysis begins with the construction of a new set of variables based on the relationships in a correlation matrix (Cooper & Schindler, 2003:635).

### **1.6.10 Layout accessibility**

Layout accessibility refers to the way in which furnishing and equipment, service areas and passageways are arranged and the spatial relationships among these elements (Wakefield & Blodgett, 1996:47).

### **1.6.11 Regression analysis**

Regression analysis is a powerful and flexible statistical procedure for analysing associative relationships between a metric-dependent variable and one or more independent variables (Malhotra & Peterson, 2006:503).

### **1.6.12 Reliability**

Zikmund (1999:221) defines reliability as the degree to which a measure is free from random error and therefore yields consistent results. Reliability is the extent to which a scale produces consistent results if repeated measurements are made (Golafshani, 2003:598).

### **1.6.13 Servicescapes**

Servicescape refers to the use of physical evidence to design service environments (Hoffman & Bateson, 2006:9). The fact that services are intangible in nature, their assessment and evaluation cannot be achieved during consumption (Pantouvakis & Lympelopoulou, 2008:623). Nguyen (2006:230) defines servicescape as the packaging of the service.

#### **1.6.14 Service encounter**

Service encounter is the period of contact between the spectator and the service provider during which the service transaction takes place (Newman & Cullen, 2002:285). Four components that contribute to service encounter are:

- *Service setting* (such as furnishings, atmospherics, décor, equipment);
- *Service process* (such as routines, stages, complexity, queue length);
- *Service staff* (such as gates staff, security, tour guides); and
- *Spectators* (patrons, clients, guests).

Within a stadium environment a service encounter is the interaction between the spectator and the service provider. It is a service performance in which both the spectator and the service provider have roles to enact (Bitner, Booms & Tetreault, 1990:72).

#### **1.6.15 Stadium accessibility**

Stadium access includes issues such as availability of parking, the ease of entering and exiting the parking areas and the location of the parking relative to the stadium (Wakefield, Blodgett & Sloan, 1996:18).

#### **1.6.16 Validity**

Validity is the extent to which the measuring device measures what it was designed to measure and it asks the question “are we measuring what we want to measure?” (Dillon, Madden & Firtle, 1993:293).

## **1.7 CHAPTER CLASSIFICATION**

**Chapter two: Servicescapes:** This chapter covers the elements and roles of servicescapes, dimensions, internal responses and behavioural responses to servicescapes.

**Chapter three: Research methodology:** The design and method of research used in the study is covered in this chapter. The sampling, data collection methods, data analysis and statistical technique are discussed in detail in this chapter. In addition, reliability and validity issues are addressed.

**Chapter four: Data analysis and interpretation:** This chapter addresses the analysis, interpretation and evaluation of the research findings.

**Chapter five: Conclusion and recommendations:** Recommendations emanating from the study are discussed. This chapter provides an overview of the study. Limitations and the implications for further research are also addressed in this chapter.

## **1.8 SYNOPSIS**

This chapter introduces the research study and briefly describes servicescapes. Servicescape is the environment in which the service is assembled and in which seller and spectator interacts with tangible commodities that facilitate performance or communication of the service (Palmer, 2005:80).



The problem statement of the study was briefly highlighted in this chapter. The primary, theoretical and empirical objectives that were formulated in the study were outlined. The research design was briefly described, namely literature review, target population, sampling technique, sample size, methods of data collection and measuring instruments. In addition the statistical analysis used was briefly described. Key definitions and the classification of chapters that comprise the study were stated.

The next chapter covers the literature review on servicescapes. The information was collected to examine the impact of servicescapes in different environments. Various aspects of servicescapes and stadia servicescapes are described.

## **CHAPTER 2**

### **SERVICESCAPES**

#### **2.1 INTRODUCTION**

Chapter one provided a background to the study, the problem statement, research objectives and sample design procedure in order to plan and to provide a logical structure of the research.

In this chapter a literature review on servicescapes is undertaken to provide clarity and to focus on the research problem, in order to guide the methodology and to broaden the knowledge-base in the research area (Ranjit, 1999:26). The review of literature and the research study relate to the importance of servicescapes in leisure and sports encounters. A review on the elements and roles of servicescapes on spectator attendance, dimensions of servicescapes, internal responses and behavioural responses to servicescapes is undertaken.

## **2.2 ATMOSPHERICS, SERVICESCAPES AND SPORTSCAPES**

The context of service encounters has been conceptualised by a variety of scholars using different terms (Harris & Ezeh, 2008:390). The physical facility, physical surroundings or the environment where a service is performed, delivered and consumed is referred to as atmospherics in retailing and servicescapes or sportscapes in a service setting such as in the sports industry (Bitner, 1992:59).

An appropriate atmosphere favourably influences consumers' or spectators' patronage and usage patterns of a facility (McGoldrick & Pieros, 1998:173). Atmospherics is a concept which is used to define and interpret image attributes of a service setting (Milliman & Fugate, 1993:26). Atmospherics has become an important feature for service organisations such as a sports stadium because services are produced and consumed simultaneously within a service environment (Heide & Grønhaug, 2006:272).

Palmer (2005:80) defined servicescapes as the environment in which the service is assembled and in which spectators interact with tangible commodities that facilitate performance or communication of the service offering. In providing further insights into the definition, Lovelock (1992:26) describes servicescapes as the style and appearance of physical surroundings where spectators and service providers interact.

Attracting people to sporting events is a major avenue for many sports teams to increase revenue and distinguish themselves from other teams (Yusof & Lee, 2008:132). The authors further asserted that it is important for sport marketers to determine which factors influence spectators to sporting events in order to increase attendance. A review of literature indicates that aspects such as fan motivation, game attractiveness, economic factors, competitive factors, demographic factors, stadium factors (sportscares), value of sport to a community, sport involvement and fan identification have a bearing on spectator attendance at sports events (Yusof & Lee, 2008:132). All of these factors may provide avenues to marketers to implement effective market segmentation and targeting strategies which can be used as a tool to assist managers to determine those services required by spectators in order to plan and market events effectively and initiate improvements for repeat attendance so that revenues could be increased.

In sport marketing literature servicescapes is often referred to as “sportscares”. It refers to the physical surroundings of a stadium that affect spectators’ desire to stay at a stadium and ultimately return to a stadium (Shank, 2005:169). Sportscares serves as an input to spectators’ affective response or judgment of pleasure with a stadium, that is, the feeling of perceived pleasure or displeasure the spectator experiences with a stadium as an environment in which they interact.

Table 2.1 presents the dimensions of servicescapes developed by previous researchers. The purpose of the analysis is to appreciate the refinement that has gone into research and the different aspects addressed by previous researchers.

**Table 2.1 Dimensions of servicescapes**

Publications	Dimensions	Notes
Kotler (1973-1974)	Four dimensions (visual, aural, tactile and olfactory)	This typology does not include the crowd and the employee dimensions.

Baker (1986)	Three dimensions (ambient, design and social)	This typology takes into account the social dimension, but does not include the exterior design aspects of the facility.
Bitner (1992)	Three dimensions (ambient conditions, spatial layout and functionality, signs, symbols and artefacts)	This framework is the most comprehensive.
Berman & Evans (1995)	Four dimensions (external variables, internal variables, landscaping and interior design and layout)	The human component is not included in the framework and the ambient factor is considered among the internal variables.
D'Astous (2000)	Three dimensions (irritant ambient factors, irritant design factors and irritant social factors)	This framework is inspired by Baker's (1986) typology.
Turley & Milliman (2000)	Five dimensions (general exterior, general interior, layout and design, point of purchase and decoration and human variables).	This framework is built on Berman & Evan's (1995) typology. It includes the human component.

**Source: Skandrani, Mouelhi and Malek (2011:53)**

For the purpose of consistency the study employs the term servicescapes which was adapted from Bitner (1992:67) to relate to a sport context “as the design of the physical environment and service staff qualities that characterise the context which houses the service encounter, which elicits internal reactions from customers leading to the display of approach or avoidance behaviours” in an environment.

## **2.3 THE ROLE OF SERVICESCAPES IN SERVICE ENCOUNTERS**

Service encounters is defined as a period of time during which a spectator or customer interacts with a service environment (Jun & Cai, 2001:276). The concept encompasses all aspects of a service environment with which a customer or spectator may interact, including its personnel, its physical facilities and other tangible elements during a given time period (Bitner *et al.*, 1990:72).

For organisations delivering high-contact services, the design of the physical environment and the way in which tasks are performed by spectator contact personnel jointly play a vital role in creating a particular corporate identity and in shaping the nature of the spectator's experience (Zukelfi, 2005: 1). It has been cited in the literature that servicescapes can take on various forms or structures i.e. servicescapes taking the role of a packaging, facilitating, socializing agent and as a differentiator. These forms of servicescapes are elaborated upon in the following section.

### **2.3.1 Servicescape taking the role of “packaging”**

The servicescape of a service environment acts as packaging for a service with its outward appearance that forms the initial impression. It is the visualisation of the intangible service product. According to Hightower, Brand and Bourdeau, (2006:46) physical surroundings can play a role similar to physical goods in that it basically communicates an image of what is included in the service.

Services are often intangible and spectators cannot easily assess their quality. Spectators cannot see, touch, smell, hear or taste a service prior to a purchase. Hence packaging should function as an advertisement and should make its promise loud and clear (Parkhouse, 1991:167). Physical evidence plays a major role in packaging the service. Physical evidence used to package the service sends quality cues to spectators and adds value to the service in terms of image development (Hoffman & Bateson, 2006:227). Spectators frequently use the service environment as an important measure of quality and service providers take great pains to signal quality and portray the desired image. For example, soccer teams or stadium managers trying to convey low price services do so by locating in inexpensive neighbourhoods, occupying buildings with simple

appearances, minimizing wasteful use of space and dressing their players and employees in practical inexpensive attire.

Similar to a tangible product's package, the servicescape and other elements of physical evidence essentially "wrap" the service and convey an external image of what is inside in the minds of spectators (Bitner & Zeithaml, 2003:287). The authors further accentuate that product packages are designed to portray a particular image in order to evoke a particular sensory or emotional reaction. The servicescape is the outward appearance of an organisation and thus can be critical in forming initial impressions or setting up spectator expectations. Servicescape is the visual metaphor for intangible services. This packaging role is particularly important in creating expectations for new spectators and for new service organisations that are trying to build a particular image (Wilson, Zeithaml, Bitner & Gremler, 2008:246).

### **2.3.2 Servicescapes taking the role of facilitator**

A well-designed and functional servicescape can make the service a pleasurable experience from a spectators' point of view and a pleasure to perform in from the employees' point of view (Zukelfi, 2005:3). Poor and inefficient design may frustrate both spectators and employees (Wilson *et al.*, 2008:247). Bitner and Zeithaml (2003:287) are of the view that servicescapes can also serve as a facilitators in aiding the performances of people in an environment. The authors are of the opinion that the way the setting is designed can enhance or inhibit the efficient flow of activities in the service setting, making it easier or harder for spectators to interact. Hightower *et al.* (2006:46) state that the facilitator's role is demonstrated when the physical environment increases or restricts the efficient flow of activities during the service encounter. According to Lovelock and Wirtz (2001:288) servicescapes are often designed to facilitate the service encounter, increase productivity, help to reduce service failures and support fast and smooth service delivery processes. Bitner (1992:67) states that servicescapes can assume a role of a facilitator by either aiding or hindering the ability of spectators and employees to carry out their respective activities.

### **2.3.3 Servicescapes taking the role of a socialiser**

The socialising factors of servicescapes refer to the human component of the physical environment. The number, appearance and behaviour of spectators in the service environment can induce either an approach or avoidance behaviour, depending on the service expectations of a given spectator.

The design of the servicescapes helps to socialise employees and spectators in the sense that it conveys the expected roles, behaviour and relationships between them (Hightower *et al.*, 2006:46). Physical surroundings help to shape appropriate feelings and reactions among spectators and employees. A clean environment contributes to the sense of fun and excitement that visitors encounter on arrival and throughout a spectator's visit. Physical surroundings should relieve stress, convey a sense of caring and respect and symbolise confidence through its architectural design (Garland *et al.*, 2004:1-12).

As a socialiser, servicescapes can also encourage and nurture particular forms of social interactions among and between employees and spectators (Bitner, 1992:67). Social interactions in servicescapes has been recognised as having a significant influence on an individual's satisfaction with the service encounter, whether it is viewed from the perspective of crowding, peer group influence, repeated interactions with staff in extended service encounters, or relationships generated by shared experiences (Arnould & Price, 1993:26).

The design of the facility can also suggest to spectators what their roles are what parts of the servicescapes they welcome, how they should behave while in the environment and what types of interactions are encouraged (Bitner & Zeithaml, 2003:287). As a socialiser, servicescapes conveys the expected roles and behaviours among staff and spectators and projects a positive and consistent image to the public (Hoffman & Bateson, 2006:228).

#### **2.3.4 Servicescapes taking the role of differentiator**

Servicescapes is a valuable tool to service providers in their quest for image differentiation (McGoldrick & Pieros, 1998:174). With competition among various industries, managers are

encouraged to take into account spectators' experience in the service provider's environments as a potential tool for differentiation (Andreu, Bigne, Chumpitaz & Swaen, 2006:559). The creation of a pleasant environment for sports stadia has become a competitive strategy to enhance spectators' positive reactions within the environment.

Servicescapes differentiate soccer stadia from that of competitors by the design of the physical facility. The unique and well-designed facilities send a signal to a market segment and are perceived as having advantage over poorly designed facilities (Hoffman & Bateson, 2006:229). As a differentiator, servicescapes can also be used to reposition a stadium to attract new market segments. Upgrading stadium facilities often upgrades the image in the minds of spectators and helps in differentiating the stadium from its competitors.

Servicescapes can also be critically important as a means of communicating positive and alluring service messages. They should be manipulated to differentiate the service settings from the competitors while increasing spectators' satisfaction. Bitner (1992:67) states that servicescapes can serve as differentiators in signalling the intended market segment, positioning the stadium and conveying distinctiveness from competitors.

Harris and Ezeh (2007:60) affirm that physical facilities are visible manifestations of the intangible services that inexperienced spectators (i.e. spectators using the stadium for the first time) rely on to make judgments on its competence and its appropriateness. The same can be said for experienced spectators (i.e. spectators who have used the stadium before) because in certain instances they may find it difficult to evaluate services even after the consumption of an experience. The inability to evaluate the service received may encourage spectators to continue relying on the stadium's servicescapes in order to alleviate any cognitive dissonance. Hutton and Richardson (1995:9) add that if a spectator is satisfied with a sports stadium's servicescapes, then s/he is more likely to be satisfied with the complete service encounter and be able to differentiate these services from those of competitors.

Reimer and Kuehn (2005:786) are of the view that spectators may use external environmental cues either to categorise or to make inferences about the service provided. Spectators who lack



complete information about service attributes are generally forced to concentrate on certain quality signals. If not, they depend on personal sources such as recommendations of friends or experts.

## **2.4 A FRAMEWORK FOR THE UNDERSTANDING OF THE ROLE OF SERVICESCAPES**

There are various dimensions that impact on servicescapes. Servicescapes can play an important role in determining the level of satisfaction with the service setting. In addition, the satisfaction with the environmental setting can affect the decision to stay and/or to return to the facility in the future (Gustafson, 2005:8). Figure 2.1 provides a framework for understanding the role of servicescapes in a service setting and serves as an aid towards obtaining a holistic configuration of servicescapes. The first three broad variables under behavioural dimensions reflect the physical aspects of servicescapes, while the internal responses are more social in nature. In addition, the three variables positioned in the middle of the model act as moderators which is premised on the need to obtain a deeper understanding of the conceptualisation of servicescapes dynamics. These dimensions are elaborated on in the following sections.

### **2.4.1 Environmental behavioural dimensions**

Servicescapes are complex and have many design elements that influence internal responses and behaviours' of consumers. Bitner (1992:65) identified three primary dimensions of the servicescapes that influence spectators' holistic perceptions of the servicescapes (i.e. perceived quality) and their subsequent internal (i.e. satisfaction with the servicescapes) and external responses (i.e. approach/avoidance of the facility, staying within the facility and re-patronising the facility).

These dimensions are:

- Ambient conditions (i.e. temperature, air quality, noise, music and odours),
- Spatial layout and functionality (i.e. the way in which equipment and furnishings are arranged, and the ability of those items to facilitate consumers' enjoyment),

- Signs and symbols and artefacts (i.e. signage and décor used to communicate and enhance a certain image or mood or to direct spectators to desired destinations).

Elaborations of the environmental behaviour dimensions are pursued in the section, which follows in order, provide a holistic understanding of servicescapes.

#### **2.4.1.1 Ambient conditions**

Ambient conditions refer to the intangible background of the environment (Liu & Jang, 2009:338-348). Ambient conditions are those characteristics of the environment pertaining to the five senses (Bitner, 1992:65). Even when consciously noted, they may still affect people's emotional well-being, perception, attitudes and behaviours. The ambient environment, or atmosphere, is a gestalt concept, composed of literally hundreds of design elements and details that have to work together to create a mood that is perceived and interpreted by spectators.

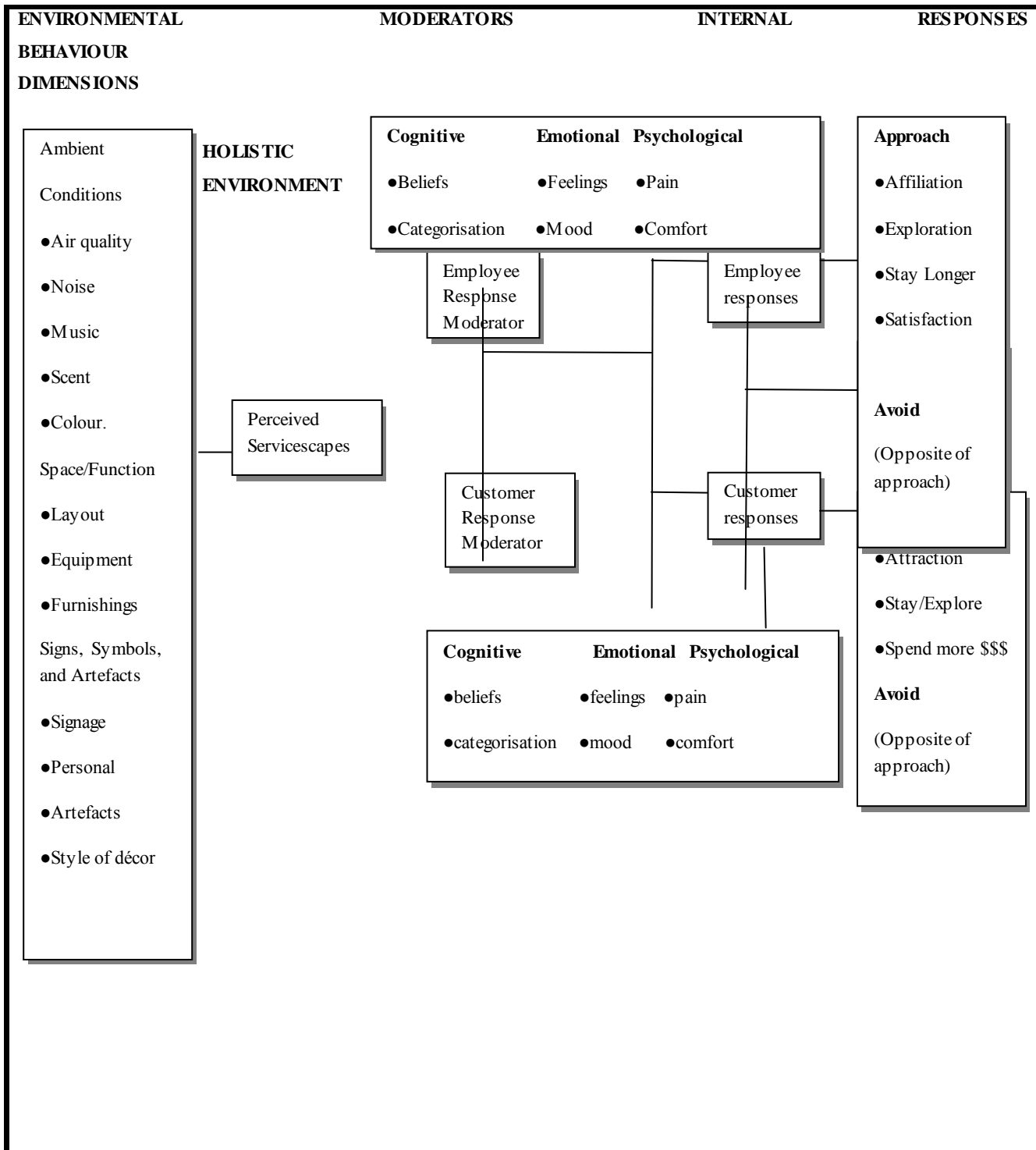
Ambient conditions are perceived both separately and holistically and include lighting and colour schemes, size and shape perception, sounds, temperature, and scents. These factors can affect how people feel, think and respond to a particular service establishment (Bitner & Zeithaml, 2003:297). Excellent design of these conditions can elicit desired behavioural responses among spectators. Ambient factors are background conditions that exist below the level of immediate awareness of spectators (McGoldrick & Pieros, 1998:176) and typically draw attention only when they are absent or pleasant e.g. a temperature and noise levels. Their influence is typically neutral or negative (Aubert-Gamet, 1997:29).

Bitner (1992:65) suggests that ambient conditions are identified as a factor that affects perception of and human responses to the environment. The author further states that ambient conditions sometimes are totally imperceptible (e.g. gases, chemicals, infrasound), yet may have profound effects particularly on consumers who spend long hours in an environment.

Sometimes spectators' awareness of ambient factors is low because they usually exist on a subconscious level and are only discernable when they are manifest at an extreme level (Harris

& Ezeh, 2007:64). These ambient factors do not directly motivate attendance decisions when at an acceptable level; which is when spectators are unaware of their presence. It has been revealed that the awareness of ambient factors by spectators leads to negative reactions causing the display of avoidance behaviour (Bitner & Zeithaml, 2003:297). Ambient conditions have a greater effect when spectators or employees spend a considerable time in the servicescapes. The impact of temperature, music, odours and colours builds up over time these are mostly influential when they conflict with spectator's expectations. A discussion of the components of ambient conditions follows.

**Figure 2.1 The servicescape model**



Source: Bitner (1992:60)

- Temperature and lighting

Ambient conditions affect spectators physiologically, cognitively or affectively. If the temperature is too hot or too cold, spectators will feel uncomfortable (Kurtz & Clow, 1998:223). Lighting is an important element of a stadium's interior and exterior design and creates a favourable first impression of the stadium and its surroundings (Newman & Cullen, 2002:265). Lighting can set the mood, tone and pace of the service encounter. Spectators talk more softly when the lights are low, the service environment is considered formal hence, pace of movement becomes slow (Hoffman & Bateson, 2006:243).

- **Music and noise**

Strong evidence shows that the presence of music in a service environment changes the ambience in that environment (Morin, Dube & Chebat, 2007:115). Hence music is considered an efficient and effective means for triggering moods and communicating non-verbally (McGoldrick & Pieros, 1998:175). Even if played at barely audible volumes, music can have a powerful effect on perception behaviours in service settings. The various structural characteristics of music such as tempo, volume and harmony are perceived holistically and their effects on internal and behavioural responses are moderated by respondent characteristics. For example, younger people tend to like different music therefore respond differently from older people to the same piece of music (McDonnell, 2007:227).

Numerous research studies have found that fast tempo music and high volume music increase arousal levels, which can then lead people to walk faster and to talk and act more quickly (Hoffman & Bateson, 2006:245). Research has shown that relaxing music proved effective in lowering stress levels and pleasant music has even been shown to enhance spectators' perception of and attitude toward service personnel (Herrington & Capella, 1996:27). The authors further established that spectators' behaviour tends to differ according to the type of music played and spend more time and money when the music "fits" with the event closely matches their musical tastes.

In a servicescape, spectators take note of music and noise as auditory components of their evaluations. Studies on music and spectator behaviour have demonstrated that music can be

used as an effective tool to minimize the negative consequences of waiting in any service encounter and can also be a positive auditory cue stimulating specific spectator behaviours and emotions (Lin, 2004:169). Noise and loudness of sound have usually been perceived as irritating and annoying. Two components of sound are volume (loudness), which relates to amplitude or height of sound waves. Loudness is perceived as negative stimulation, especially when the sound is unexpected or is perceived as undesirable. Too much sound may result in decreased concentration, increased activity, irritability and tension. On the other hand constant sound, quiet and silence may be equally problematic. A balance of loud and constant sound is the key in creating a pleasant sound environment.

Sullivan and Adcock (2002:155) consider music as the aural dimension which relates to control of sound within the service environment of the service provider. Music is considered to be the key element, as the control of all sounds in an environment is almost impossible to achieve. Music has also been found to evoke emotions by providing a link to prior experiences and is best viewed as a message enhancer that is, to enhance reception of an advertising message.

Between pleasant and unpleasant music the association is the longer consumption time, shorter time perception, less negative emotional reactions to waiting, more favourable attitudes toward servicescapes and an increased desire to affiliate with an environment (Morin *et al.*, 2007:115).

In stadia, music can be used to entertain an audience before, in between and after the match to arouse interest. Table 2.2 illustrates that irrelevant music significantly reduces the expenditure and time duration when compared to relevant type of music appropriate to an event (Sullivan & Adcock, 2002:156).

**Table 2.2 Summary of the atmospheric effects of music**

<b>Characteristic</b>	<b>Effect</b>
Music (any type)	<ul style="list-style-type: none"> <li>• Any music can affect perceptions of time.</li> <li>• Presence of any music may increase expenditure and time spent in a service provider's environment.</li> </ul>
Volume	<ul style="list-style-type: none"> <li>• Loud music is more animated, soft music is more peaceful.</li> <li>• Louder music may decrease expenditure and time spent in a service provider's environment.</li> </ul>
Tempo	<ul style="list-style-type: none"> <li>• Fast music may make people more happy/ pleasant than slow music.</li> <li>• Fast music increases the rate of in-store traffic flow/ spectator flow.</li> </ul>
Pitch	<ul style="list-style-type: none"> <li>• High pitch is seen as more exciting and low pitch as sad.</li> </ul>
Popularity	<ul style="list-style-type: none"> <li>• May have an effect only on time duration.</li> <li>• Music increases time spent in an environment.</li> </ul>

**Source: Sullivan and Adcock (2002:156)**

- **Scent**

An ambient smell is one that pervades an environment. This may or may not be consciously perceived by spectators and is not related to any particular product. Sullivan and Adcock (2002:157) state that scent refers to an olfactory dimension of the servicescapes. It comprises three main research areas which comprise the affective aspect which relates to how pleasant the scent is, arousal, which is, the ability of scent to evoke a response and intensity and the strength of the scent. The link between scent and pleasure is said to be due to the limbic system of the

brain. This system deals with both emotions and the processing of olfactory messages whereby arousal can be affected by the presence of scents, leading to differences in behaviour (McDonnell, 2007:227).

Pleasant scents have been found to increase alertness and performance on a range of tasks, facilitate recall of pleasant memories, increase prosocial behaviour and increases the time spent in an environment (Sullivan & Adcock, 2002:157). Poor ventilation systems that fail to remove odours and poorly located trash receptacles contribute to potential odour problems while pleasant scents encourage spectators to attend events at stadia (Hoffman & Bateson, 2006:245).

- **Colour**

Colour is defined in three dimensions in terms of: hue, value and chroma (Hoffman & Bateson, 2006:240).

- *Hue* is the pigment of the colour (red, orange, yellow, green, blue violet).

It is classified as warm colours (red, orange, yellow), and cold colours (blue and green), with orange (a mix of red and yellow) being the warmest and blue being the coldest of the colours.

- *Value* is the degree of lightness or darkness of the colour relative to a scale that extends from pure black to pure white.

- *Chroma* refers to hue intensity, saturation, or brilliance; high chroma colours have an intensity of pigmentation in them and are perceived as rich and vivid, whereas low chroma colours are perceived as dull.

Sullivan and Adcock (2002:151) view colour as one of the visual dimensions of servicescapes. They further state that colours can be divided into light, warm, cool, neutral, bright and new. For simplicity, colours will be referred to as warm or cool. Warm colours are those at the red end of spectrum while cool colours are at the blue end. Colour has been found to attract attention, to assist in evaluation and to highlight certain product or service environment features.

Colour is one of the visual cues in the servicescapes and it is a strong visual component of physical setting, particularly in an interior setting (Lin, 2004:168). It is shown that different



colours stimulate different personal moods and emotions. Colour is stimulating, calming, expressive, disturbing, impressionable, cultural, exuberant and symbolic. It pervades every aspect of our lives, embellishes the ordinary and gives beauty and drama to everyday objects. Colours have a strong impact on spectators' feelings and create emotional responses, obtain attention, create image and a desired atmosphere (Bellizzi, Crowley & Hasty, 1983:21).

The use of colours in any specific context needs to be approached with caution; despite differing colour preferences, people are generally drawn to warm-colour environments. However, red-hued environments are perceived as negative, tense and less attractive than cool-colour environments. Warm colours are appropriate for entrances and windows (McGoldrick, 1990:298). Warm colours encourage fast decision making in service situations and are best suited for low-involvement decisions or impulse purchases. Cool-colours facilitate high-involvement purchases and create a calm mood (Newman & Cullen, 2002:160).

In addition, Sullivan and Adcock (2002:151) show that colour can be used to improve mood and direct emotions and to increase arousal and excitement. It can be seen to have both physiological and psychological effect on an individual. Countryman and Jang (2006:537) found that colours that are bright and highly saturated tend to produce pleasant feelings. The authors found that the appropriateness of the colour varies with the function of the venue. A colour combination assists spectators to find their way in a venue and it has the ability to create pleasant feelings among spectators. Therefore, it affects perception and attitudes and may cause certain behavioural differences.

#### **2.4.1.2 Spatial layout /functionality**

Spatial layout and functionality refers to the ways in which seats, aisles, hallways and walkways, food services lines, rest rooms and entrances and exits are designed and arranged in sports stadia settings (Wakefield & Blodgett, 1994:67). Layout and functionality factors are important in many leisure services because they affect the comfort of the spectator and can have a major impact on the ability of users to complete the tasks and achieve their service goals (Bitner, 1992:67).

To facilitate access to destinations there must be proper signage to direct spectators with adequate space allocation. Inadequate space and signage cause spectators to feel confused and crowded which may lead to negative feelings about a game experience.

As service environments generally exist to fulfil specific purposes and spectators' needs, spatial layout and functionality of the physical surroundings are particularly important. Spatial layout refers to the size and shape of furnishings, counters and potential machinery and equipment and the ways in which they are arranged. Functionality refers to the ability of those items to facilitate the performance of service transactions. Spatial layout and functionality affect attendance behaviour, spectators' satisfaction and consequently the business performance of the service facility.

Spatial layout and functionality of the environment are highly salient to spectators in self-service settings where they must perform on their own and cannot rely on employees to assist them. If the tasks to be performed are very complex, efficiency of layout and functionality will be more important than when tasks are mundane or simple. When either employees or spectators are under pressure they will also be highly conscious of the relative ease with which they can perform their tasks in an environment (Quester & McOmish, 2005:208).

- **Furnishings and equipment**

The furnishings in a servicescapes link the space with occupants and convey the personality of the servicescapes through form, line, colour, texture and scale. The furniture placement may convey a sense of enclosure, define spatial movement, function as walls and communicate visible or invisible boundaries (Lin, 2004:168).

- **Layout**

Countryman and Jang (2006:537) emphasised that layout should minimise crowding in order to create a favourable impression among spectators. The authors further state that layout is contingent on several factors including the size of the stadium, grade or standard, patterns of arrivals (entrance) and departure (exit). The layout of the space within the service environments must reinforce the stadium's image (Dunne, Lusch, Gable & Gebhardt, 1992:316). If the external appearance invites spectators to enter but the internal layout doesn't fortify the projected image, the spectator will develop a poor impression and may decide to leave or never to come back again to the facility. According to McGoldrick (1990:300) a careful design of the stadium layout can make the best use of available space and influence traffic flow within the stadium to maximise exposure to the game.

#### **2.4.1.3 Signs, symbols and artefacts**

Sign, symbols and artefacts are the aesthetic appeal that refers to the external environment, i.e. architectural design, facility upkeep and cleanliness, signage and other physical elements which spectators view and evaluate in the servicescapes. These factors are important because they influence the ambience of the place (Wakefield & Blodgett, 1994:68). Signs are usually large and placed fairly high to be seen throughout the stadium (Dunne & Lusch, 2005:479). They help to guide spectators through the stadium. A logo on the outside of the stadium is the first sign the spectator will see (Newman & Cullen, 2002:265) therefore it must be clear, distinctive and convey the image of the stadium in a manner attractive to spectators.

Sign, symbols and artefacts are particularly important in forming first impressions and for communicating new concepts. When spectators are unfamiliar with a particular service establishment, they will look for environmental cues to assist them categorise the place and begin to form their quality expectations (Bitner & Zeithaml, 2003:300).

Signs, symbols and artefacts communicate features about the place to spectators. Signs displayed on the interior or exterior of a stadium are explicit communicators. They can be used as labels, for directional purposes and communicators of role behaviour (Cockrill, Goode & Emberson, 2008:193). Signs reduce perceived crowding and stress (Bitner, 1992:66). The author further

states that other environmental objects may communicate less directly than signs giving implicit cues to users about the meaning of the place, norms and expectations for behaviour in an environment. Quality of materials used in construction, artwork, presence of certificates and photographs on walls, floor coverings and personal objects displayed in the environment can all communicate symbolic meanings and create an overall aesthetic impression.

Aspects in the servicescapes act as explicit or implicit signals to communicate the service providers' image (Cockrill *et al.*, 2008:193), help spectators to find their way (for example, to certain service counters, rest rooms or to the exit), and convey the rules of behaviour (for example, smoking/no smoking areas or queuing systems). In particular, first time spectators will automatically try to draw meaning from the signs, symbols and artefacts and will want to draw cues from the environment to help them form expectations about the type and level of service that is being offered and to guide them through the service environment and service process. For example, signage located at the entrance greets entering spectators and provides evidence of an intimate service encounter (Dunne & Lusch, 2005:478).

Effective use of signs, symbols and artefacts in parking lots assists spectators to find their way, manage their behaviour and portray a positive image for sponsors. Parking lots play an important role at many service facilities. For example, signs that lead spectators on their way are illustrated below:

- **Friendly warnings:** All warning signs should communicate a spectators' benefit, e.g. "Fire lane" for everyone's safety, and spectators are requested not to park their vehicles in the fire lane.
- **Fresh paint:** Curbs, crosswalks and lot lines should be repainted regularly before any cracking, peeling or disrepair becomes evident. Proactive and frequent repainting gives positive cleanliness cues and projects a positive image.
- **Safety lights:** Good lighting that penetrates all areas makes life easier for customers and enhances safety. Stadium management may want to draw attention to this feature with notices stating: "Parking lots have been specially lit for your safety".
- **Maternity packing:** Handicapped spaces are often required by law but require special stickers on the vehicle. A few thoughtful organisations have designated expectant-mother

parking or emergency vehicle parking for an ambulance in space painted with red. This strategy demonstrates a sense of caring and understanding of spectators' needs.

- **Helpful parking aids:** Forgetting where one left the car in a huge parking can be a nightmare. Many parking lots have adopted colour-coded floors to help spectators remember which level they parked on.

#### **2.4.2 Internal moderators within servicescapes**

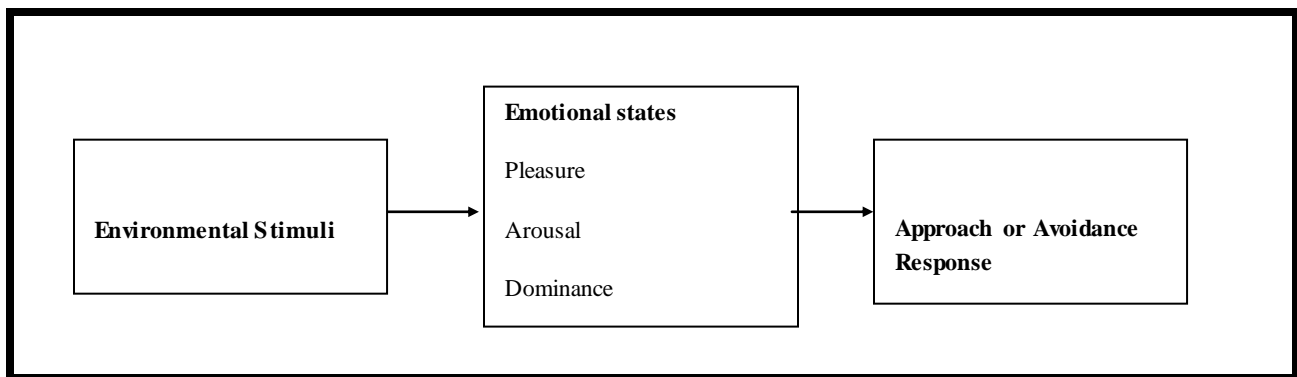
The internal response moderators of the servicescape pertains to the three basic models namely; pleasure-displeasure, arousal-non-arousal and dominance-submissiveness (PAD dimensions) (Hoffman & Bateson, 2002:233). These three response moderators merge the perceived servicescape and spectator's response to a stadium. Hoffman and Bateson (2002:229) and Aubert-Gamet (1997:27) state that the pleasure/displeasure emotional state reflects the degree to which spectators feel satisfied with the service experience. The arousal/non-arousal state reflects the degree to which spectators feel excited and stimulated. Dominance/submissiveness reflects feeling of control and the ability to act freely within the service environments that appeal to pleasure, dominance and arousal state and avoid creating atmospheres that create displeasure, non-arousal and submissiveness (Donovan & Rossiter, 1982:35; Liu & Jang, 2009:342).

Harris and Ezeh (2007:67) briefly describe each dimension: pleasure as spectator's verbal assessment of responses towards the servicescape such as happy as opposed to unhappy, pleased as opposed to annoyed or satisfied as opposed to dissatisfied. Servicescapes that are perceived to be pleasant attract spectators and make them spend more time and money at the service environment while unpleasant servicescape is avoided. Arousal includes spectators' reaction to the servicescape which involves individual feelings, such as inspired as opposed to relaxed, excited as opposed to calm or exhausted as opposed upset. Dominance relates to spectators' feelings of being controlled in an environment.

#### **2.4.3 Internal responses to Servicescapes**

Apart from the environmental behaviour dimensions of servicescapes, there are internal responses that influence the servicescapes whereby individuals respond to an environment in different ways (Lovelock & Wirtz, 2005:288). Studies, which were undertaken within the realms of environmental psychology, show how people respond to their environments (Cockrill *et al.*, 2008:192). The theory underlining the environmental psychology postulates a stimulus organism response (SOR) process to an environment (Hutton & Richardson, 1995:20). In other words, the environment within which a decision is made serves as a stimulus to the decision maker. Figure 2.2 depicts a fundamental model of how spectators respond to stadia environments. The model holds that, the environment and its conscious and unconscious perception and interpretation influences how people feel in an environment. Peoples’ feelings in turn drive their responses to an environment. Feelings are central to the model which posits that feelings rather than thoughts or perceptions drive behaviour (Lovelock & Wirtz, 2004:288). For example, spectators are deterred by the unpleasant feeling of a crowd of people being in their way or to the personal control and not being able to get what they want quickly (Wakefield *et al.*, 1991:20).

**Figure 2.2 The Mehrabian Russell Stimulus – Response Model**

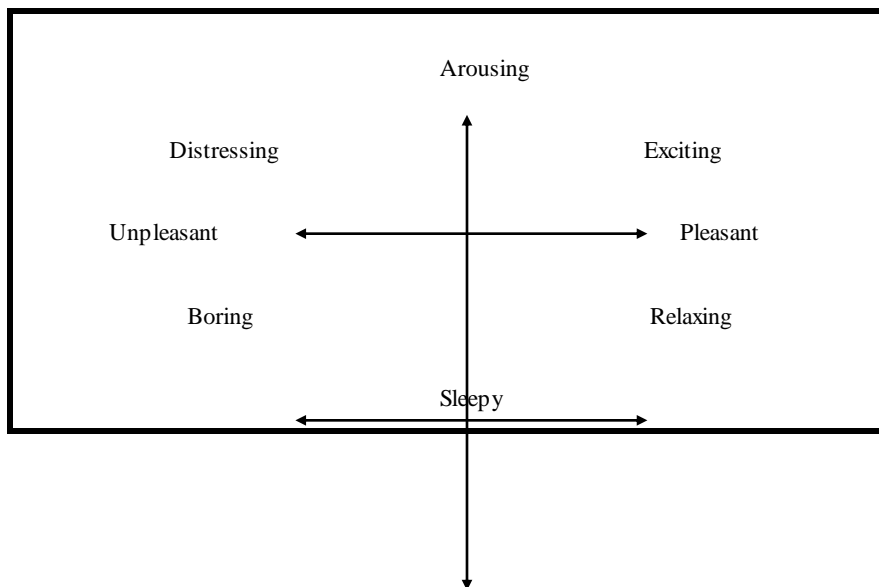


**Source: Harris and Ezeh (2007:62)**

Cockrill *et al.* (2008:189) defines approach behaviour as a desire to stay in a particular place and avoidance behaviour as a desire to leave a particular place. Stadium environment significantly predicts approach-avoidance measures such as liking of a stadium, enjoyment within a stadium,

willingness to spend time in the stadium, willingness to explore the environment, feelings of friendliness to others, willingness to return and likelihood to spend more money than intended (Donovan, Rossiter, Marcoolyn & Nesdale, 1994:285). Approach behaviour includes all the positive behaviour of spectators that is, willingness or desire to move around and explore the stadium (Harris & Ezeh, 2007:68). Contrary to approach responses, avoidance behaviours are the outgrowth of negative feelings about a service place, manifested by an unwillingness to explore and stay in a stadium (Aubert-Gamet, 1997:27).

**Figure 2.3 The Russell Model of Affect**



**Source: Donovan and Rossiter (1982:39)**

The Russell Model of Affects shown in Figure 2.3 states that affect or feeling is central to how spectators respond to an environment.

Lovelock and Wirtz (2004:290) state that approach and avoidance behaviour are the behavioural consequences of affect. Pleasant environments results in approach while unpleasant ones results in avoidance behaviour. Arousal acts as an amplifier of the basic effect of pleasure on behaviour. If the environment is pleasant, increasing arousal can lead to excitement, leading to a stronger positive spectator attendance in sports events at stadiums. Conversely, if a service environment is naturally unpleasant, arousal levels decreases which moves spectators into the distressing mood state.

The section which follows provides an overview of stadium development in the various provinces in South Africa in order to gain an understanding and to consolidate some of the servicescapes elements present within a stadium environment.

## **2.5 AN OVERVIEW OF STADIA AND STADIUM SPORTSCAPES WITHIN A SOUTH AFRICAN CONTEXT**

Designing a sports stadium is an art that takes considerable time and effort and can be expensive to implement. Once designed and built, sports stadia are not always easy to change (Lovelock & Wirtz, 2004:285).

For example, in South Africa, in preparation for 2010 FIFA World Cup <sup>TM</sup> ten stadia were used to host the different matches between countries (FIFA Fact sheet, 2010). Five stadia were renovated while the other five were newly built. A brief description of each stadium is provided in order to elucidate some of the essential aspects of sportscape variables.

**The newly built stadia were:**



**2.5.1 Green Point Stadium** located in Cape Town with the seating capacity of 55,000 and 13,000 extra temporary seats. Seats are designed so that all spectators are close to the game and can be evacuated in 15 minutes. The stadium is named after the suburb in which it is located. It is between the South African icons, Table Mountain and Robben Island. It is a multi-purpose and all weather facility that is now used for other events after the 2010 FIFA World Cup™. The stadium resembles a rose-coloured bowl floating on a base when lit up at night. The basic structure of the roof resembles a bicycle wheel and has a glass to cover and protect spectators from strong winds and rain. The ceiling is made of woven Polyvinyl Chloride (PVC) fabric to soften the noise from within. Spectators are protected by state-of-the-art camera surveillance system, monitored by the police in the Venue Operations centre inside the stadium. The stadium has offices, medical centre, press centre, four television studios, 250 VIP lounges, a conference hall and a police station with jail cells. There are 500 toilets, 360 urinals, 115 entry turnstiles and 16 lifts. The stadium hosted five first round matches, one round of 16 matches, one quarter final match and one semi-final match of the 2010 FIFA World Cup™.

**2.5.2 The Moses Mabhida Stadium** situated in Durban with the gross capacity of 70,000 spectators. The stadium is used as a world class multi-purpose stadium. The stadium complex comprises an adjoining indoor arena, sport museum, sport institute and a new trans-modal transportation station. It caters for a variety of activities such as rugby, cricket and athletics. The stadium hosted five group matches of the 2010 FIFA World Cup™.

**2.5.3 Nelson Mandela Bay Stadium** is situated in Port Elizabeth with the gross capacity of 48,000 spectators. It has a great position on the shores of North End Lake with the views of both the lake and the Indian Ocean. The stadium has an eye-catching sunflower roof designed to withstand the high wind speed of Port Elizabeth. It is equipped with state-of-the-art technology and two big viewing screens. It is convenient for spectators to get to the stadium as it is close to N12 national highway and is 15 minutes' drive from the main hotel precinct. The stadium hosted five first round matches, one second round match, a quarter final and the third place playoff of the 2010 FIFA World Cup™, South Africa.

**2.5.4 Mbombela Stadium** located in Nelspruit in the Mpumalanga province. The name Mbombela is siSwati word which means “many people together in a small place”. The stadium is

near the Kruger National Park. This stadium attracted spectators from different parts of the world as it is the only stadium in the area of the Bushveld. It is called a 'wild stadium' which is reflected in the giraffe-shaped roof supports and zebra-style seating. It is a three tiered stadium that has round and rectangular shapes to ensure that every seat is as close as possible to the action on the ground with the gross capacity of 46,000 spectators. The stadium attracted a large number of spectators during 2010 FIFA World Cup™, South Africa but also hosted rugby games, football matches and concerts. There is a surrounding complex that has hockey fields, a gymnasium, shops, conference and wedding facilities. The stadium hosted four first round matches (FIFA Fact sheet, 2010).

**2.5.5 Peter Mokaba Stadium** located in Polokwane in the Limpopo province. The stadium has four tier stands that provide a seating capacity of 46,000 spectators. The stadium hosted several first-round matches of the 2010 FIFA World Cup™, South Africa. After the World Cup it was used as a stadium for local teams and hosted different events including rugby. The stadium hosted four first round matches of the 2010 FIFA World Cup™, South Africa (FIFA Fact sheet, 2010).

**The renovated stadia were:**

**2.5.6 Ellis Park Stadium (Coca-Cola Park)** originally built in 1928 for the South African Rugby Union (SARU) and rebuilt in 1982 after being demolished in 1979. The stadium is named after Mr J.D Ellis (sport legend). It is a world class sporting venue situated in Johannesburg with the capacity of 62,000 spectators. It is the home ground for Orland Pirates. The stadium's name was changed to Coca-Cola Park after a R450 million sponsorship by Coca-Cola. The name Coca-Cola Park was not used during the 2010 FIFA World Cup™ as commercial names are not used for the World Cup. The Ellis Park Stadium was an important venue for the 2009 Confederations Cup, hosting the opening and final matches as well as the opening and the closing ceremony of the festival champions (FIFA Fact sheet, 2010). The stadium hosted one round of 16 matches, one quarter final and five first round matches.

**2.5.7 Soccer City Stadium (formerly FNB Stadium)** was built in 1987 in Johannesburg on the outskirts of the township of Soweto. The stadium's new design is based on the calabash or African cooking pot. The interior changes include the extension of the upper tier and the addition

of encircling roof. It was the largest venue for the 2010 FIFA World Cup™ and the biggest stadium in Africa which hosted the opening, four first round matches, one second round match and the final match. The capacity increased from 80,000 to 94,700 spectators. It was the first international football stadium built in South Africa and it hosted the final of the 1996 Nelson Mandela's first mass rally after his release in 1990.

**2.5.8 Free State Stadium (Vodacom Park)** was built in 1952, Mangaung in Bloemfontein. The capacity increased from 45,000 to 48,000 spectators. The stadium hosted 1996 African Cup of Nations and 1995 Rugby World Cup. For the hosting of the 2010 FIFA World Cup™, South Africa, a second tier was added to the main grandstand, new turnstiles, floodlight upgraded, electronic scoreboards installed and the sound system was revamped. The stadium was used for 2009 FIFA Confederations Cup matches. This World Cup stadium is close to independent cricket, hockey and athletics stadia. It is one of the stadia that have a good record of safety and security. The stadium hosted five first round matches and one second round match for the 2010 FIFA World Cup™, South Africa.

**2.5.9 Royal Bafokeng Stadium** in Rustenburg at North West province was built in 1995 as a venue for the 1995 Rugby World Cup. The seating capacity increased from 38,000 to 42,000. Accessibility to the stadium is easy as the stadium is built on open land with an abundance of parking facilities. Minor upgrades were done whereby a new cantilever roof was added, new electronic scoreboards, floodlights and a new public address system. The stadium is 90 minutes' drive from Johannesburg and 25 minutes' drive from Sun City. The stadium hosted five first-round matches and one second-round match for 2010 FIFA World Cup™, South Africa.

**2.5.10 Loftus Versfeld Stadium** located in Tshwane (Pretoria). The stadium was built in 1906 and is the home ground for Mamelodi Sundowns and SuperSport United as well as a rugby union club, the Blue Bulls. In 1995 it hosted the Rugby World Cup. It has the capacity to accommodate 50,000 spectators. Since 1977 the stadium had undergone many renovations and its four major stands have been completely rebuilt. To meet FIFA requirements, the stadium renovations for the 2010 FIFA World Cup™ included a new roof over the eastern pavilion, new ablution facilities

and turnstiles, upgrading of the sound system and scoreboard and a designated media centre. The stadium hosted one round of 16 matches and five first round matches.

These newly built or renovated stadia provide examples of the some of the atmospheric variables that were put in place to attract spectators. Newer stadia facilities attract fans due to the greater comfort and better view of the game in addition to proximity (Howard & Crompton, 2003:111). Research has also shown that teams playing in new facilities attract more fans for sustained periods of time and those fans would come to the new state of the art venues built on a sport mall concept loaded with amenities and entertainment options that have the propensity to sustain interest among spectators (Howard & Crompton, 2003:111). Dhurup (2010:216) suggested that the sport mall concept is a trend in arena constructions and incorporates multiple entertainment options in conjunction with the arena.

The construction of the new 2010 FIFA World Cup™ stadia are first-rate examples of stadia that accommodate other types of sport (multi-purpose stadia ) and are built according to the sport mall concept. These stadia which provide abundant entertainment activities illustrate opportunities for recreation other than the game itself. For example, the Moses Mabhida stadium in Durban is a 365 days a year usage stadium. The Moses Mabhida stadium is built in Durban's King Park sporting precinct. The stadium has two large archways above the stadium roof and with a cable tram is an excellent model in stadium development. The atmospheric variables provide an abundance of opportunities for sport consumers who are not yet fans, to move gradually up the sport and recreation consumption escalator which may progressively increase fan attendance at sports events (Kent, 2001:322).

Stadium attendance is one of the revenue sources for team sport (Garland *et al.*, 2004:1). Therefore, leisure services and the sport industry require spectators to spend extended periods of time in the physical surroundings of the service provider (Wakefield & Blodgett, 1996:45).

Although fan loyalty to a team is an important factor in explaining why spectators attend games, the stadium surroundings play an important role in determining spectators' attendance tendencies to games at stadia. Howard and Crompton (2003:111) are of the view that the novelty effect that

modern stadia bring with them are destination attractions in their own right with the ability to attract large number of visitors and spectators, irrespective of team performance.

New stadia are built to attract and increase the attendance of spectators at sports events. Moreover, team owners, who cannot justify or afford new stadia, renovate the existing stadia to improve stadium factors that are positively related to game attendance (Shank, 2005:167). They refer to variables such as newness of the stadium, stadium access, aesthetics or beauty of the stadium, seat comfort, crowding, team loyalty and cleanliness of the stadium as pertinent factors associated with fan attendance. The innovation, freshness and excitement associated with a new facility invariably arouses interest among spectators, employees, the media, sponsors and potential patrons (Howard & Crompton, 2003:111).

Management of sports stadia are supposed to consider physical surroundings (servicescapes) to achieve both organisational and marketing goals as spectator attendance is the key constituent of a sports organisation's success that attracts sponsors (Howard & Crompton, 2003:111). Thus it is argued that the more tangible a service is, the greater the need to provide tangible physical evidence. Servicescapes is capable of performing several different roles all at once (Hightower *et al.*, 2006:45).

## **2.6 STADIUM SERVICESCAPES**

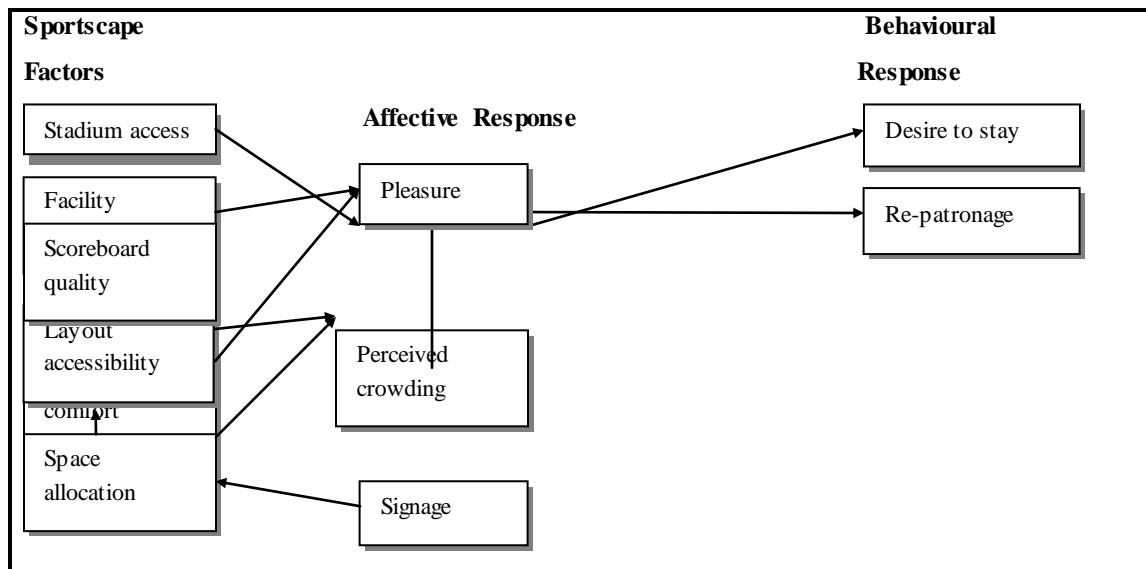
With regard to stadium servicescapes, very little past research is evident. However, a notable contribution to the study of stadium sportscares was provided by Wakefield and Blodgett (1994:45-61) which is used as a basis for discussion.

Stadium factors refer to variables such as the newness of the stadium, seat comfort and cleanliness of the stadium, stadium access, facility aesthetics, score board quality and layout accessibility. Each sportscape factor serves as an input to the spectators, affective response or judgment of pleasure or displeasure with the stadium (Shank, 2005:168).

A stadium with high quality servicescapes results in higher levels of satisfaction with the servicescapes and spectators are more likely to return to future events. Conversely, those stadia with lower quality servicescapes result in lower levels of satisfaction and spectators are less likely to return (Gustafson, 2005:9).

Figure 2.4 provides a framework for understanding the dynamics of the sportscape. A discussion of the dimensions is pursued in the following sections.

**Figure 2.4 Model of the Sportscape**



**Source: Wakefield *et al.* (1996:16)**

### **2.6.1 Stadium accessibility**

Accessibility of the venue where the event is hosted is an important factor (Shonk & Chelladurai, 2008:592). It pertains to access highways, public transportation and parking facilities (Shonk, 2006:14). Stadium access includes issues such as availability of parking, the ease of entering and exiting the parking areas and the location of the parking relative to the stadium (Wakefield *et al.*, 1996:18). From the spectators' perspective, anything that can make it easier to get in and out of the stadium quicker will positively affect a return for future games (Shank, 2005:169). Stadium accessibility is one of the key elements in the service encounter (Newman & Cullen, 2002:286) and it is important that spectators have clear access to a stadium. Stadium accessibility refers to the simplicity spectators have in approaching, entering and exiting a stadium (Kurtz & Clow, 1998:218).

In many situations spectators leave sporting events early to avoid traffic or walk long distances to get to a game because of limited parking (Wakefield *et al.*, 1996:18). For example, because of limited parking spaces, spectators may have to walk over three kilometres to get to the game and by the time he/she reached the seat one of the teams may have scored a goal. This experience certainly results in displeasure with the entire game experience (Shank, 2005:168).

If stadium parking spaces are ample, spectators' enjoyment of the stadium experience may be enhanced. Low-tolerance and task-oriented individuals may experience frustration if locating a parking space and/or walking into the stadium requires excessive amounts of time (Lee, Ryder & Shin, 2003:1). Spectators dissatisfied with parking conditions are relatively likely to leave a game early and express dissatisfaction with their stadium experience (Wakefield & Sloan, 1995:156).

## **2.6.2 Facility aesthetics**

Facility aesthetics refers to the interior and exterior appearance and décor of the stadium that contributes to its attractiveness (Wakefield *et al.*, 1996:19). The exterior appearance includes stadium architectural designs and age of the stadium. New stadia with historic architectural designs increase game attendance (Shank, 2005:169). The interior of the stadium includes

factors such as colour of the stadium walls, facades and seats, the presence of present sponsors' signage and presence of symbols from the team's past.

Facility aesthetics contribute to the overall attractiveness of the sportscape and a spectator may evaluate the sportscares when approaching the stadium and while finding their seats (Wakefield *et al.*, 1996:19). Coinciding with the exterior, spectators have plenty of time to observe the interior of the stadium. If spectators take note of an abundance of litter at the stadium or the stadium is in a state of disrepair the spectator might develop negative thoughts towards the event and may not wish to return in the future because they feel uncomfortable in the environment (Robertson & Pope, 1999:5).

According to Wakefield and Blodgett (1996:48) facility aesthetics are a function of architectural design, as well as interior design and décor, both of which contribute to the attractiveness of the servicescape. From an external viewpoint, as spectators approach or drive by stadia or other leisure services they are likely to evaluate the attractiveness of the exterior of the facility. Once inside the sport stadium, spectators of the game often spend time observing the interior of the stadium. These evaluations are apt to influence their attitudes towards the place. In addition to the appeal of the facility's architectural design, spectators may be affected by the colour schemes of the facility walls, facade and floor covering.

### **2.6.3 Scoreboard quality**

Scoreboard quality is one of the specific interior design considerations that represent separate dimensions of a sportscape. The scoreboard in some stadia is seen as the focal point of the interior. Throughout the game fans continually monitor the stadium scoreboard for updates on scoring, player statistics and other forms of entertainment, such as contest, cartoon animation and music video clips (Shank, 2005:169).

State of the art scoreboards with huge video screens commonly known as jumbotrons are becoming a common feature of modern stadia and arenas across the world that are developed and promoted as a means of attracting and sustaining fan interest (Moore, Pickett & Grove,



1999:453). The authors further state that scoreboards display data regarding the game at hand, updates of other scores from other locations and news of future events.

Electronic equipment and displays can be used to enhance the leisure experience. Some electronic equipment is used to deliver and enhance the primary service offering. Other electronic equipment is ancillary, in that it is used to display information and entertain spectators during gaps in the primary service offering (for example, in between play periods at sporting events). This type of electronic display can play an integral role in the servicescapes because it makes waiting times more pleasurable.

In sports stadium settings, modern graphic scoreboards can be used to generate excitement in-between innings or periods (for example, first and second half of a ninety minute soccer game) (Wakefield *et al.*, 1996:19). Besides providing game scores and player information, some scoreboards allow for sports trivia quizzes, instant replays and highlight videos that keep customers entertained throughout the event (Robertson & Pope, 1999:5).

#### **2.6.4 Seating comfort**

Seating comfort refers to the perceived comfort of the seating and the spacing of seats relative to each other. Anyone who has been forced to sit among the 100,000 fans can understand the influence of seating on the game experience (Shank, 2005:170). Those people who have been fortunate to view a game from a luxury box know the impact of seating enjoyment on the game. The latest seating innovations in new stadia are the club seats. These seats typically offer the padded seat luxuries of a private box without the privacy. Club level seats commonly include climate controlled lounges; multiple screen sets, quick accesses to food and beverages, parking benefits and more space between rows of seats.

Seating comfort is likely to be a particularly salient issue for spectators of leisure and sports stadium service settings who must sit for a number of hours observing or participating in some form of entertainment (Wakefield & Blodgett, 1996:48). Some seats may be comfortable/

uncomfortable because of their design or conditions (new versus deteriorating, padded versus non-padded, bench seats as versus seats with backs).

The width of aisles and hallways, the arrangement of seats and the amount of room afforded for concessions and rest room facilities should be sufficient to accommodate social interaction and facilitate enjoyment of the game. When rows are too narrow other spectators are frequently forced to stand or shift in their seats to let other spectators pass. Therefore, a spectator who feels uncomfortable because other spectators are too close or who feels hampered in exiting the stands and accessing rest rooms may leave a game early and hesitate to attend further games (Lee *et al.*, 2003:2)

### **2.6.5 Layout accessibility**

Within the leisure and sport industry context, layout accessibility refers to the way in which furnishing and equipment, service areas and passageways are arranged and the spatial relationships among these elements (Wakefield & Blodgett, 1996:47). Layout accessibility refers to whether spectators can move freely about the stadium. Sportscape factors affect spectators' feelings about the game experience. These positive or negative feelings experienced by spectators ultimately affect their desire to stay in the stadium and return for other games. Although all servicescapes' factors are important, perceived crowding is a significant predictor of spectators having a pleasurable game experience or not. The aesthetic quality of the stadium was also found to have major impact on spectators' pleasure with the game (Shank, 2005:170).

An effective layout will provide for ease of entry and exit, and will make ancillary service areas such as concessions, restrooms and souvenir stands more accessible. Interesting layout may also facilitate fulfilment of hedonic or pleasure needs, i.e. by making ancillary service areas more accessible; spectators are able to spend more time enjoying the primary service offering.

Layout accessibility is important because spectators should easily get to their destinations; restrooms and food stands and if it is difficult to locate their seat or find a restroom it makes

them more uncomfortable and can only provide a negative effect. In addition, it is also important to be able to view the playing field from the concession stands (Robertson & Pope, 1999:5).

### **2.6.6 Crowding, security and safety**

Crowding is a state of psychological stress that results when one's demand for space exceeds the supply (Machleit *et al.*, 2000:29; Sullivan & Adcock, 2002:304). According to McGoldrick and Pieros (1998:176) crowding is an environmental variable that has an impact on spectator-stadium environment interaction. Crowding is in the eye of the beholder (Sullivan & Adcock, 2002:304) which relates to density (Machleit & Eroglu, 1990:203). Perceived density is the subjective estimate of the number of people, the space available and its organisation within a stadium. Over-crowding occurs when the outcome of the evaluation is negative and perceived density is judged dysfunctional, which is confining and constraining. Poorly designed stadia may have the psychological effect on making spectator feel crowded (Wakefield & Sloan, 1995:157).

Perceived crowding and layout accessibility are the two factors that were found to be determinants of spectators' perceptions of crowding. Perceived over-crowding, in turn is believed to have a negative influence on spectators' pleasure whereby pleasure decreases as perceived over-crowding increases.

Crowding normally produces a negative reaction and avoidance behaviours. Spectators tend to avoid stadia that are assumed to be overcrowded (Kurtz & Clow, 1998:224). According to Lee and Hughes (2005:575) there is a high possibility for injury and even loss of lives in overcrowded stadia. Hence, spectators avoid overcrowded stadia because of an incident that may have occurred a long time ago, for example, the Hillsborough Football Stadium disaster which occurred in Sheffield on April 15, 1989 ([www.news.bbc.co.uk](http://www.news.bbc.co.uk))

In South Africa cases can be cited regarding stadium disasters due to overcrowding. South Africa also has a history of poor organisation of premier league matches. Due to a large number of supporters for both Kaizer Chiefs and Orlando Pirates a disaster occurred when fans crowded into the ground for a local match between them (Ellis Park Disaster, 2001). On 10<sup>th</sup> October 1998, tickets were oversold for the match between giant teams, Kaizer Chiefs and Orlando

Pirates. Police fired rubber bullets into the crowd and that caused damage to the stadium and spectators were injured. No one died. On the 11 April 2001, there was again a Soweto derby (Kaiser Chiefs vs. Orlando Pirates) at Ellis Park stadium in the city of Johannesburg in the Gauteng Province. The capacity of the stadium was 60,000 and officials oversold tickets. The stadium was overcrowded, and spectators tried to gain seats and see the pitch while untrained security guards started firing teargas at the stampede. The crowd over-spilled into press boxes and pressed forward. 43 people died and more than 200 were injured (Ellis Park Disaster, 2001). Perceived over-crowding not only has an impact on pleasure but also on spectators' safety (Shank, 2005:170). Spectators do not like to feel confined, restricted or uncomfortable because of cramped seating arrangements or because ancillary facilities such as rest rooms, hallways and food services are not designed to allow freedom of movement (Wakefield *et al.*,1994:67).

Spectators are satisfied when they feel safe and comfortable in a stadium. Sport marketers should ensure that spectators are satisfied with stadium facilities to create interest and enhance retention that leads to loyalty (Sven & Yassim, 2007:43). Servicescapes and loyalty intentions are discussed in more detail in the next section.

## **2.7 SERVICESCAPES AND LOYALTY INTENTIONS**

No matter the size or the type of the stadium, spectators are vital (BizHelp, 2005:1). Stadium management do not wish spectators to attend matches at a stadium once and never return; rather they seek repeat patronage (Olson & Peter, 2005:487) because the key to the successes of any organisation is the retention and expansion of the market share (Newman & Cullen, 2002:287). Spectator retention efforts are designed to encourage spectators to stay with a stadium rather than to switching to competitors (Schiffman & Kanuk, 2004:15). Building relationships with spectators to secure loyalty is a strategic decision for service providers as gaining and maintaining loyalty is a source of sustainable competitive advantage (Sullivan & Adcock, 2002:270-271). Loyalty is a feeling or an attitude of attachment and affection. Loyalty of fans is important for any sports team because it is five times more costly to attract new spectators than to please existing spectators (Sharyn, 2005:492). Therefore spectator retention is more important than

spectator attraction (Kent & Omar, 2003:438) and loyal spectators are the base for the success of a team in terms of revenue (Sven & Yassim, 2007:44).

Loyal fans and winning teams usually result in higher attendance at games (Wakefield & Sloan, 1995:153). Stadium loyalty may be derived from socialization (for example, influence of family and peers over time) and stadium marketing as well as enduring involvement (Wakefield & Sloan, 1995:159). The service encounter also makes the difference as it customises the experience and makes spectators feel special, which eventually builds loyalty (Newman & Cullen, 2002:287).

There are different reasons to maintain loyalty of spectators. The following are the important plusses of having loyal spectators (Bizhelp, 2005:1):

**Repeat sales:** It is vital to have spectators for life. If spectators develop a loyalty to a stadium and a team, they are likely to choose the stadium over other stadia (competitors) in the future.

**80/20 rule:** It is important for stadium management to attract first time and occasional spectators but it is also important to turn existing spectators into loyal spectators. Stadium management have discovered that 80% of attendance comes from 20% of loyal spectators.

**Word of mouth:** Word of mouth is the cheapest form of marketing where satisfied spectators speak to their friends and family and effectively sell a stadium. Loyal spectators do not only spend more time at the stadium but they also help bring in more spectators.

**Cost:** It costs five times more to gain a new spectator than to keep an old one. Turning 10% of occasional spectators into loyal spectators could save up to 8% of costs of gaining spectators such as marketing, price offers, staff costs and time.

Stadium loyalty is a convenient mode of spectator attendance and saves time and effort (Assael, 1995:138). Hence, loyalty of spectators should be maintained, as the overall aim of marketing is

to ensure the increase of the market share by implementing strategies that will ensure spectator loyalty to a stadium (Cant, Brink & Brijball, 2002:219).

## **2.8 SYNOPSIS**

Organisations differ in terms of whom the servicescape will actually affect i.e. who actually comes into the service facility and thus is potentially influenced by its design. It is reasonable to suggest that servicescapes is a key element in the enjoyment of a soccer game. Likewise, the servicescape would affect the subsequent decision to purchase tickets for future games and possibly even purchase a season ticket.

Spectators become disorientated when they cannot derive clear signals from a servicescape, resulting in anxiety and uncertainty about how to proceed and how to obtain the desired service. Inexperienced spectators and newcomers to a stadium can easily feel lost in a confusing environment and experience anger and frustration. The challenge of servicescape designers is to use signs, symbols and artefacts to guide customers clearly through the process of service delivery. Hence, signs, symbols and artefacts have to communicate clearly and lead the service process in an intuitive manner. The servicescape must be designed so that spectators and patrons of the sport and leisure service feel comfortable. Research findings have also demonstrated that if the servicescape is not appealing and comfortable, spectators may avoid an environment or facility which may affect future loyalty and attendance. Stadium aesthetics, stadium accessibility, scoreboard quality, safety and security, layout accessibility, perceived overcrowding and seating comfort have been shown to impact on attendance at a stadium.

In the next chapter an overview is provided of the research design and methodology used in the study.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1 INTRODUCTION

The literature review on servicescapes was undertaken in the previous chapter. A review on the elements and roles of servicescapes on spectator attendance, dimensions of servicescape, internal responses and behavioural responses to servicescape was undertaken.

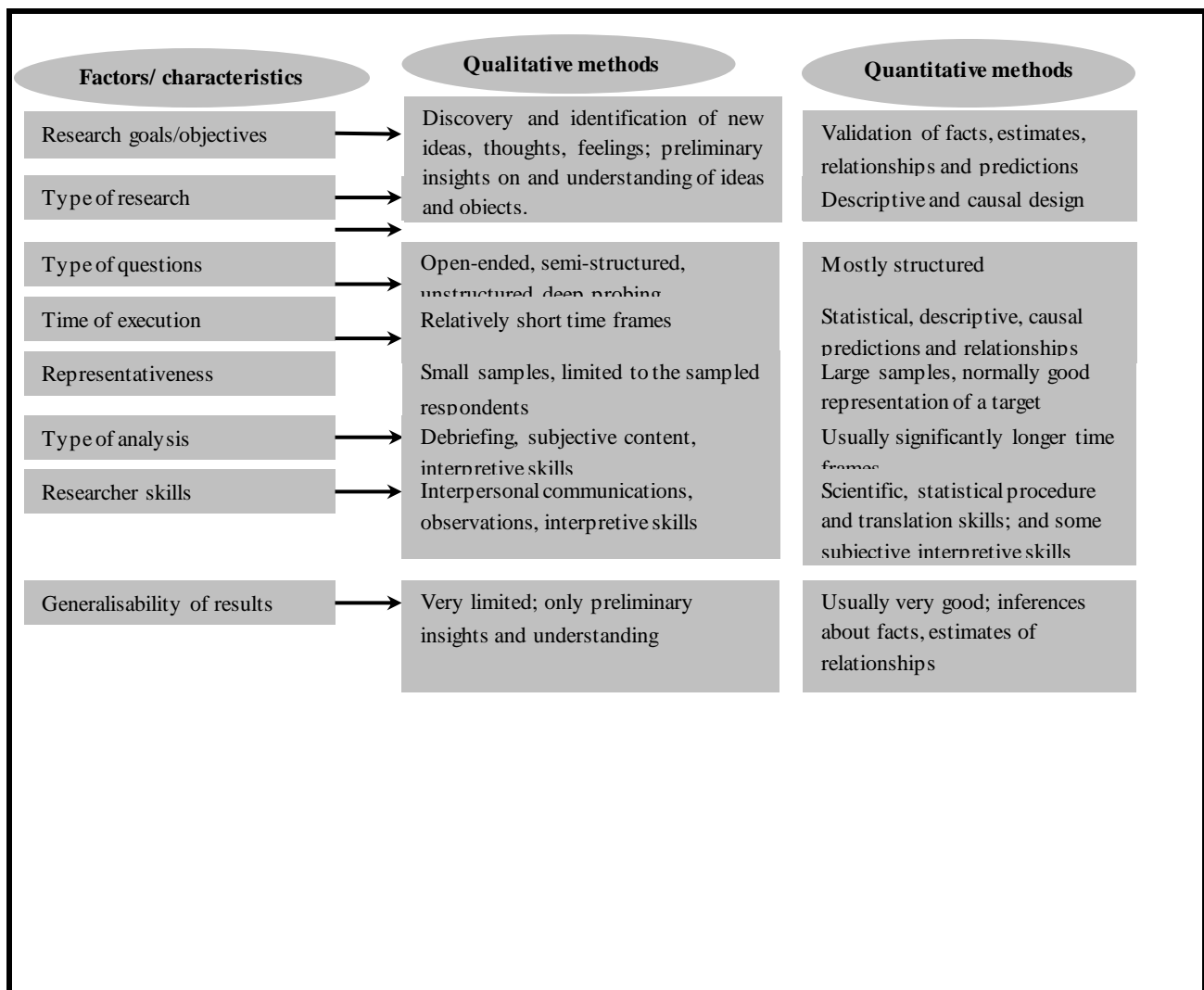
This chapter concentrates on the research design and methodology. The research design is a careful planning of the operations in order to collect the data in a thorough, systematic way, in accordance with the methods and ethics of social research. There are several types of research designs, namely quantitative, qualitative and mixed method research approaches (Rachad, 2004:26). Qualitative and quantitative approaches are explained in the next section.

#### 3.2 QUALITATIVE AND QUANTITATIVE RESEARCH APPROACHES

Primary data can be collected through two basic approaches namely quantitative and qualitative research method (McDaniel & Gates, 2002:66). Qualitative research refers to the kind of research where findings are not subject to quantification or quantitative analysis while quantitative research may be used to find statistically significant differences between users. Kobus (2007:145) defines quantitative research as a process that is systematic and objective. Quantitative research uses numerical data from only a selected subgroup of a universe (population) to generalise the findings to the universe that is being studied. Quantitative research places heavy emphasis on using formalised standard questions and predetermined response options in questionnaires or surveys administered to large numbers of respondents. Qualitative research is the research used in exploratory design in order to gain preliminary insights into decisions, problems and opportunities (Hair, Bush & Ortinau, 2000:216).

For the current study, quantitative research method was used. Tustin, Ligthelm, Martins and Van Wyk (2005:90) state that in quantitative research the type of questions have limited probing and fewer special skills are required for administration. The authors further emphasise that quantitative research is cheaper than qualitative research as it uses questionnaires, computers and printouts while qualitative research uses tape recorders, projection devices, video, pictures and discussion guides as the hardware. Figure 3.1 illustrates the differences between qualitative and quantitative research methods.

**Figure 3.1 Differences between qualitative and quantitative research methods**



Source: Hair, Lukas, Miller, Bush & Ortinau (2008:93)



Sampling design procedures are discussed in the next section.

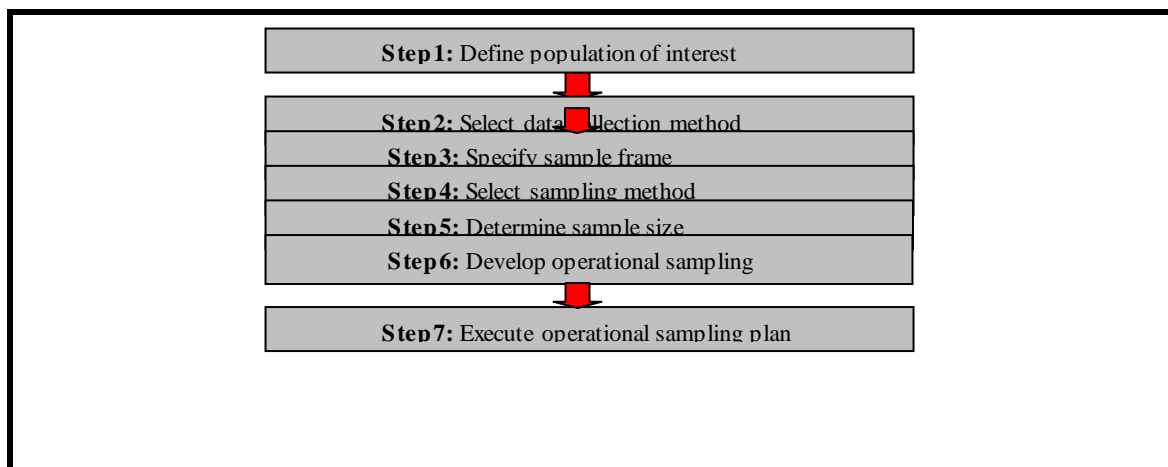
### 3.3 THE SAMPLING DESIGN PROCEDURE

Loubser, Martins and Van Wyk (1996:596-624) set out the following steps in sampling procedure:

- Defining the population;
- Identifying the sample frame;
- Selecting the sampling methods;
- Determining the sample size; and
- Selecting the sample elements.

These procedures are summarised in seven steps of designing a sample plan. Figure 3.2 outlines the procedures in the design of a sample plan.

**Figure 3.2 Steps in developing a sample plan**



Source: Tustin *et al.* (2005:339)

### **3.3.1 The target population**

The target population is a set of all the people or subjects the researcher is interested in knowing about and from which the sample is selected (Spata, 2003:13). McDaniel and Gates (2005:356) define population as the entire group of people about whom the researcher need to obtain information.

Loubser *et al.* (1996:252) define population as the aggregate of all the elements and is defined in terms of elements, sample units, time and size while Bless *et.al.* (2006:99) define population as the entire set of objects or people which is the focus of the research and about which the researcher wants to determine some characteristics of interest. The target population was restricted to male and female fans who attended matches at the FNB (Soccer City), (refer to section 2.5.7 for a detail description of the stadium) and Orlando stadium situated in Soweto in the Gauteng province.

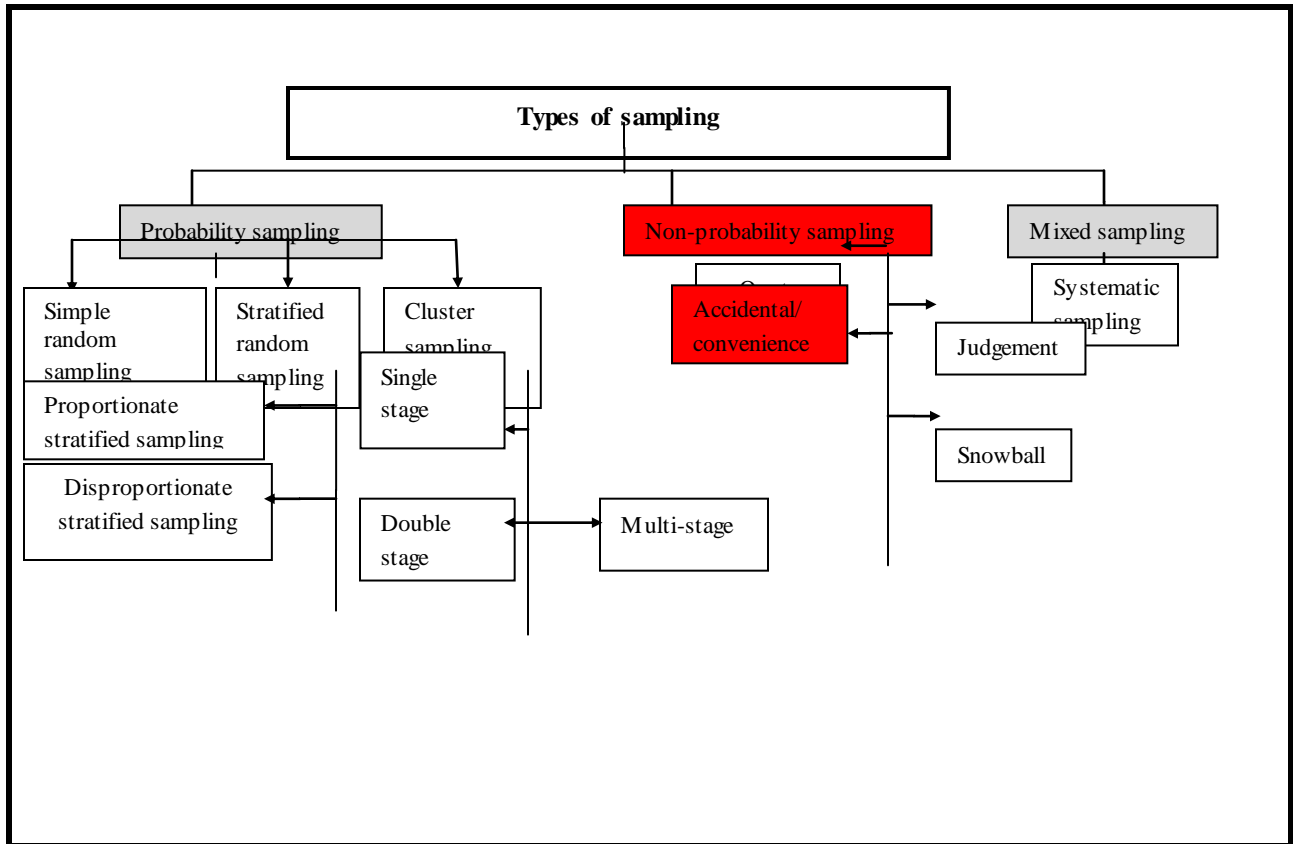
The Orlando stadium was originally built in 1959. The stadium was completely rebuilt and re-opened on the 22 November 2008. The seating capacity was increased from 24 000 to 40 000. Orlando stadium is a multi-purpose stadium as it caters for soccer and rugby as well as community gatherings and music concerts. The stadium has functional facilities including, hospitality facilities that can accommodate 120 suites, conference facilities, gymnasium, fan shop, offices and security facilities. Orlando stadium was used as a training venue during 2010 FIFA World cup. It also hosted the FIFA World Cup Kick-Off celebration concert on the 10 June 2010, a day before opening match (FIFA Fact sheet, 2010).

### **3.3.2 The sampling method**

Sampling methods are divided into two broad categories; probability and non-probability sampling (Loubser *et al.*, 1996:253). Hair *et al.* (2000:344) define non-probability sampling as the process where the probability of selection of each sampling unit is unknown while probability sampling is a technique of drawing a sample in which each sampling unit has a

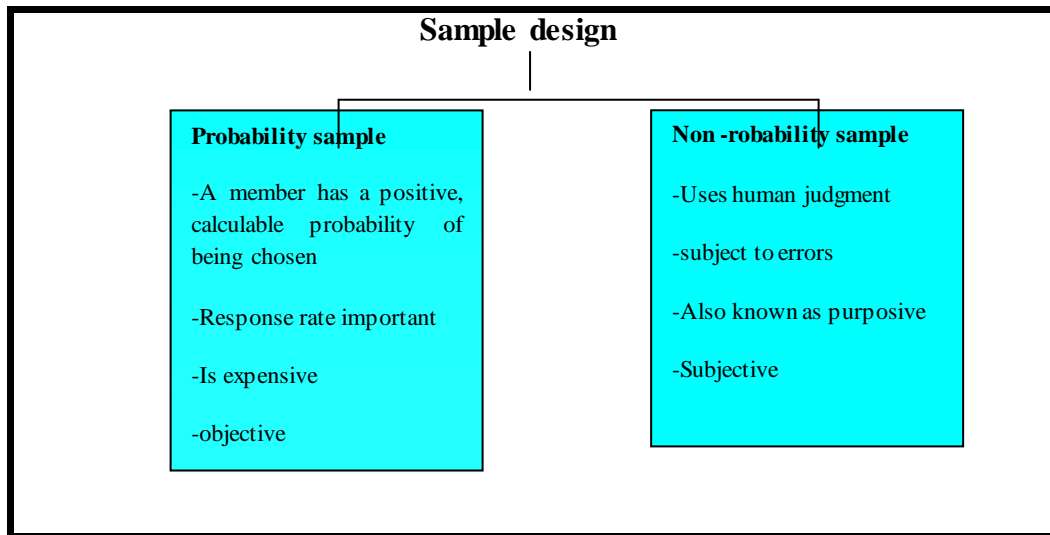
known, non-zero probability of being included in the sample. Figure 3.3 shows types of sampling and Figure 3.4 shows the difference between probability sampling and non-probability sampling.

**Figure 3.3: Types of sampling**



Source: Kumar (2005:170)

**Figure 3.4: Distinction between probability and non-probability sampling**



**Source: Bradley (2007:172)**

Non-probability sampling technique, namely convenience sampling had been used in the current study. Convenience samples involve selecting sampling units on the basis of where and when the study is being conducted (Bradley, 2007:179). Convenience sampling is the method in which the respondent's participation is voluntary or it leaves the selection of sampling units primarily up to the interviewer (Dillon *et al.*, 1993:229). Convenience sampling represents an efficient and effective means of obtaining the required information (McDaniel & Gates, 2005:373). Hair *et al.* (2000:355) state that convenience sampling allows a large number of respondents to be interviewed in a relatively short period of time and with lower costs.

### **3.3.3 Sample frame**

Sample frame is an important part of sampling that mirrors the population of interest in summary form and that includes summary information of key features of all units in the population of interest (Bradley, 2007:166). Bradley (2007:166) further asserts that the sample frame might be a tangible list or a set of instructions that must be up to date, complete, affordable and easy to use. The sample frame is a list of all eligible sampling units (Hair *et al.*, 2008:238) which is related to the population. It is the list of elements from which the sample is actually drawn and it is the complete and correct list of population members only (Cooper & Schindler, 2006:443). The

facility locations (stadia) were used in this study to draw the sample in the absence of a sample frame.

### 3.3.4 Sample size

Sample size refers to the number of elements to be included in the study (Malhotra, 2004:318). Determining a sample size that is adequate is complicated. Based on past research studies the sample size of 200 respondents was set for the study and deemed adequate. Table 3.1 outlines the determination of the sample size based on past studies.

**Table 3.1 Determining the sample size**

<b>YEAR</b>	<b>AUTHORS</b>	<b>SCOPE OF STUDY</b>	<b>SAMPLE SIZE USED</b>
2000	Garland, Macpherson & Haughey	Attracting fans to the game	221
2005	Eroglu, Machleit & Barr	Perceived retail crowding and shopping satisfaction: The role of shopping values	153
2000	Hill & Green	Repeat attendance as a function of involvement, loyalty and the sportscape across tree football context	200
2001	Mattila & Wirtz	Arousal expectations and service evaluations	178
2001	Gentry & Burns	How “important” are evaluative criteria in shopping center patronage	199

**Source: Mcpherson, Garland & Haughey (2000:745), Eroglu, Machleit & Barr (2005:1148), Hill & Green (2000:150), Mattila & Wirtz (2006:229) and Gentry & Burns (2001:73).**

### 3.3.5 Data collection

Data collection is the visible part of the research that involves interviewing and completing a questionnaire for each individual or organisation in the sample (Hague, Hague & Morgan, 2004:13). Kumar, Aaker and Day (2004:232) are of the view that the choice of a data collection method is a critical point in the research process. However, the process is seldom easy as there are many factors to be considered and many variations of survey methods.

For the collection of data, personal interviews were undertaken. In personal interviews the interviewer can gain a deeper understanding of the validity of the response (Hague *et al.*, 2004:123). In personal interviews better explanations are possible as the respondents' body language offers additional clues to the answer. The author asserts that it is easier to maintain the interest of a respondent for longer periods and explanations can be offered to questions. Personal interviews have high opportunity for feedback, probing complex answers, with high participation rates (Zikmund, 1999:143-144).

Personal interviews are used for the following reasons (Stangor, 2007:184-185):

- The interviewer is able to check and ensure respondent eligibility before the interview commenced;
- Personally administered questionnaires ensure that all questions were asked in the required order and that all applicable questions were answered;
- The interviewer is able to encourage respondents to answer as fully as possible and to check whether the questions were correctly understood or not;
- The interviewer ensures that the target numbers of interviews were achieved; and
- Interviewers persuade respondents to complete the interview process.

The questionnaire used for the collection of data is discussed in the following section.

### **3.4 THE QUESTIONNAIRE**

The questionnaire is a data capture instrument which lists all questions a researcher wishes to address to each respondent and provides space or some mechanism for recording the responses (Kent, 1993:62). McDaniel and Gates (2005:318) describe a questionnaire as a set of questions designed to generate the data necessary to accomplish the objectives of a research project.

Questionnaires can take the form of unstructured, semi-structured and structured questionnaires (Hague, 1999:107). An unstructured questionnaire is the checklist of open-ended questions with spaces for writing in the replies, in the respondent's own words thus producing qualitative data (Kent, 1993:62). The structured questionnaire is the one which offers the respondent a range of answers to choose from (Welman, Kruger & Mitchell, 2005:175). Semi-structured questionnaire is made up of both structured and unstructured questionnaires (Hague, 1999:108).

A fully structured questionnaire was used in the study. Jackson and Hague (1999:115) emphasise that structured questionnaires are used in large interview programmes typically over 200 interviews and are used where it is possible to anticipate the responses closely. In a fully structured questionnaire, respondents have little difficulty in replying (Gilbert, Churchill & Dawn, 2005:215).

Questionnaire layout and physical attractiveness are important. The questionnaire should be designed to appear as short as possible and should not be overcrowded (Zikmund, 1999:254). The questionnaire was divided into five sections.

**Section A** covered various elements of the servicescape that have an impact on the attendance of spectators in different stadia. It covered elements like local roads, parking, colours, decorations, scoreboards, seats, layout, crowd control, cleanliness, signs and refreshment provisioning.

**Section B** covered questions determining factors affecting spectators' desire to stay at a stadium.

**Section C** included questions determining how spectators perceive crowding at stadia.

**Section D** evaluated the future intentions of spectators concerning their attendance. Cronbach alpha coefficient test was undertaken to establish the reliability of this instrument (refer to page

101) and various forms of validity i.e. content, construct, convergent, discriminant and predictive validity were used to measure validity of this instrument (refer to page 101).

**Section E** covered demographic information of spectators. This included questions that required a respondent to give personal information and background, such as: gender, age, marital status, frequency of attendance, qualifications, ethnic group and preferred stadium were included in the questionnaire at the end.

### **3.5 PRE-TESTING AND PILOT TESTING OF THE QUESTIONNAIRE**

In pre-testing, the questionnaires are given to a few respondents before the final study is undertaken in order to ensure accuracy of the questionnaire and to ensure that it is clear and understandable. Tustin *et al.* (2005:412) emphasised that pre-testing paper-based questionnaires is essential for the researcher to be satisfied that the questionnaire will perform its various functions in the interview situation by checking that data collected will be as relevant and accurate as possible. Pre-testing involves a trial run with a group of respondents in the target population to iron out fundamental problems in the questionnaire survey design (Zikmund, 1999:258). Pre-testing was undertaken with three sport management academics and ten potential respondents, prior to the pilot study. Debriefing had been undertaken with respondents to assess matters relating to: wording, sequencing of questions, ambiguity, relevance of questions and phrasing of questions.

Pilot testing was undertaken among respondents in the two selected stadia namely, FNB (Soccer city) and Orlando stadium. The questionnaire was pilot-tested with 47 respondents. Data preparation and its components are discussed in the next section. The results of the pre-test and pilot study is reported in chapter 4 (pages 70-72).

### **3.6 DATA PREPARATION**



The raw data obtained from the questionnaires must undergo preliminary preparation before they can be analysed using statistical techniques that involve editing the data, coding responses into categories and tabulating responses into frequencies or tables (Kumar *et al.*, 2004:356). Data preparation is regarded as a process of converting data from a questionnaire into a format that can be analysed (Hair *et al.*, 2008:392). These authors assert that the purpose of data preparation is to take the data and prepare it for conversion into information. Editing and coding are the two main aspects that are essential in data preparation. A discussion of these aspects follows in the next section.

### **3.6.1 Editing**

Editing entails a thorough and critical examination of a completed questionnaire in terms of compliance with the criteria for collecting meaningful data and in order to deal with questionnaires not duly completed (Loubser *et al.*, 1996:232). McDaniel and Gates (2005:320) describe editing as going through each questionnaire to make certain that skip pattern is followed and required questions are filled out. Editing entails a process of ascertaining that questionnaires are filled out properly and completely.

Editing sometimes called “cleaning the data” was done to ensure that questionnaires are complete, accurate and suitable for further processing. The questionnaire was examined in order to identify questions that are answered incorrectly or not answered at all. The questionnaire was edited before the responses were processed to determine whether or not the data recorded in the questionnaire was acceptable for use and to prepare it for coding and capturing.

In personal interview surveys, editing is done in two stages: in the field (field editing) and in-house or in the office (central editing). In the current study both field and central editing was undertaken and these are discussed in the following section.

#### **3.6.1.1 Field Editing**

Field edit is a preliminary edit designed to detect obvious omissions and inaccuracies in the data while the interviewing is in progress (Churchill & Brown, 2007:427). The field edit was done as soon after the questionnaire had been administered and filled in by the respondent before thanking the respondents for their participation. Field editing was undertaken by field workers and the researcher.

### **3.6.1.2 Central Editing**

After editing at the field level, questionnaires or interview forms were edited in a central office, thus providing the greater consistency (Jan & Colin, 2010:229). Central editing is a more thorough scrutiny of the questionnaires done by the researcher (Loubser *et al.*, 1996:299).

Churchill and Brown (2007:427) list the following primary tasks in the central office edit.

- The researcher converts all responses to consistent units;
- The degree of non-response is assessed; and
- Where possible consistency is checked across responses.

An experienced researcher, an academic and the supervisor were used to conduct the central editing of all the questionnaires to decide how to handle incorrect or incomplete data. Incomplete questionnaires were discarded.

### **3.6.2 Coding**

Coding is the process of grouping and assigning numeric codes to the various responses to a question (McDaniel & Gates, 2005:321). Coding involves assigning numbers or other symbols to answers so that the responses can be grouped into a limited number of categories (Cooper & Schindler, 2006:491).

Coding can take several forms, being abbreviations of key words, coloured dots or numbers. Bradley (2007:329) terms coding as the name given to the procedure whereby complex descriptions are broken into simpler meanings and are allocated a code usually a number. For the

current study, numbers were used where female was coded 1 and male coded 2. Again five point Likert scale was used where strongly agree was coded 5 and strongly disagree was coded 1.

In addition to the editing and coding process, ethical issues are also a necessary aspect of conducting proper and reliable research. Ethical issues of the research are described in the following section.

### **3.7 ETHICAL ISSUES**

Research is a profession based on trust, that a survey will be conducted using professional standards, that a respondent's identity will be kept confidential and that a client will not publicly misrepresent survey findings. Dutka and Lester (2006:145) emphasised that in order to maintain this trust researchers should behave in an ethical and respectful manner to respondents, clients and the public in general. Ethical considerations are concerned with matters such as plagiarism and honesty in reporting of results (Welman *et al.* 2005:181).

Bradley (2007:16) illustrates that ethics concerns good practice and that it is important for researchers to behave properly to avoid losing respondents. Kobus (2007:41) views ethics as the issue of the confidentiality of the results and findings of the study and the protection of the participants' identities.

In essence, research practitioners have to maintain their research integrity, treat outside clients fairly and maintain research confidentiality. For the purpose of this study confidentiality and anonymity was provided. Respondents were not forced to answer the questionnaire and an explanation was provided to respondents about the purpose of the survey. Respondents who participated in the study were not misled by the researcher. The questionnaire did not contain any questions disadvantageous to self-interest of respondent and professional competence in the data collection was maintained throughout the survey.

### **3.8 STATISTICAL ANALYSIS**

Statistical analyses are mathematical methods for systematically organising and analysing data once the data have been entered into the computer (Stangor, 2007:326). For the purpose of the research study descriptive and inferential statistics were undertaken and the following types of analyses were used.

- Frequency distribution
- Measure of central location
- Correlation coefficient
- Exploratory factor analysis
- Regression analysis

These are discussed in the next section.

### **3.8.1 Descriptive statistics**

Descriptive statistics is a collective name for a number of statistical methods that are used to organise and summarise data in a meaningful way (Kobus, 2007:183). Descriptive statistics can be divided into a way of representing or describing data, either graphical, numerical or through tabulation (Anderson, Sweeny & Williams, 2000:12).

Stangor (2007:114) defines descriptive statistics as numbers that summarise the pattern of scores observed on a measured variable. This pattern is called the distribution of the variable. Rachad (2004:8) emphasises that descriptive statistics aims at describing a situation by summarising information in a way that highlights the important numerical features of the data.

The most fundamental of these techniques is the construction of frequency distribution and other techniques which include measures of central location, measures of variability and measures of skewness and kurtosis (Tustin *et al.*, 2005:523).

Frequency distribution and a measure of central location were used for section B, C, D and E of the questionnaire in the current study.

### **3.8.1.1 Frequency distribution**

Frequency distribution is a mathematical distribution whose objective is to obtain a count of the number of responses associated with different values of one variable. The relative occurrence or frequency of different values of the variable is expressed in percentages (Malhotra & Birks, 2006:448). Anderson *et al.* (2000:30) defines frequency distribution as a tabular summary showing the frequency (or number) of observations in each of several non-overlapping classes.

Strydom, Cant, Jooste and Du Plessis (2006:223) state that there are a variety of frequency distributions that include the simple frequency distribution and the grouped frequency distribution. There are various graphical ways in which frequencies may be displayed such as the bar graph, histogram, frequency polygon, pie chart and pictogram.

The simple frequency distribution, the grouped frequency distribution, the histogram and pie chart will be used to describe demographic section of the questionnaire (Section E).

### **3.8.1.2 Measure of central location**

Three well known and widely used measures of central location are the mode, median and mean (Kobus, 2007:186). To be effective a measure of central location should identify the most characteristic values namely the values that best describe the entire set of values or the value around which the other values are distributed. The mean is only discussed in this section as it was used in the study.

- **Mean**

Bradley (2007:64) defines a mean as the average value for a set of raw data that is computed from interval or ratio (metric) data. Mean is calculated by adding the values for all observations for a particular variable and dividing the resulting sum by the number of observations (McDaniel & Gates, 2005:436). The mean or average value is the most commonly used measure of central location to estimate the mean when the data have been collected (Malhotra & Birks, 2006:449). The mean was used in section 4.5 of the study whereby the mean rating of each servicescape dimension was computed.

### **3.8.2 Correlation coefficient**

The Pearson correlation coefficient measures the degree to which there is a linear association between two interval scaled variables (Kumar *et al.*, 2004:411). A positive correlation reflects a tendency for high value in one variable to be associated with a high value in the second variable. A negative correlation reflects an association between a high value in one variable and low value in the second variable. Correlation analysis is the analysis of the degree to which changes in one variable are associated with changes in another (McDaniel & Gates, 2002: 560). Correlations are reported in section 4.8.2 of the study. Correlations were computed to examine the nature of the relationship between stadium servicescapes dimensions, desire to stay and future attendance at stadia.

### **3.8.3 Regression analysis**

Regression analysis is a powerful and flexible statistical procedure for analysing associative relationships between a metric-dependent variable and one or more independent variables (Malhotra & Peterson, 2006:503). Kumar *et al.* (2002:411) define regression analysis as a statistical technique that is used to relate two or more variables. The objective in regression analysis is to build a regression model or prediction equation relating the dependent variable to one or more independent variables. The model is used to describe, predict and control the variable of interest on the basis of the dependent variables. Regression analysis is reported in section 4.6 of the study. The stadium servicescapes factors were regressed with desire to stay and future attendance in order to establish any causal relationships.

### **3.8.4 Exploratory Factor analysis**

Factor analysis is a general name to denote a class of procedures primarily used for data reduction and summarisation. Factor analysis begins with the construction of a new set of variables based on the relationships in the correlation matrix (Cooper & Schindler, 2003:635). Malhotra & Birks (2006:573) outlined the following situations in which factor analysis can be used:

- To identify underlying dimensions or factors that explains the correlations among a set of variables. For example a set of stadium servicescape variables may be used to measure stadia servicescapes;
- To identify a new, smaller set of uncorrelated variables to replace the original set of correlated variables in subsequent regression analyses. For example, the psychographic factors identified may be used as independent variables in explaining the differences between loyal and non-loyal spectators; and
- To identify a smaller set of salient variables from a larger set for use in subsequent multivariate analyses. For example, servicescape dimensions that correlate highly may be used as factors in regression analysis.

Exploratory factor analysis is reported in section 4.4 of the study. In addition to the various types of statistical procedures outlined above, the study also used reliability and validity techniques. These techniques are described below.

### **3.9 RELIABILITY**

Reliability means that the repeated measurements of the same characteristics will yield similar scores over time and across situations. It implies consistent and stable measurement from one use of the scale to the next (Dillon *et al.*, 1993:294). Zikmund (1999:221) defines reliability as the degree to which a measure is free from random error and therefore yields consistent results. Reliability is assessed by computing the extent to which measured variables correlate with each other.

Malhotra and Peterson (2006:274) state that there are various methods of assessing reliability namely:

- Test-retest reliability: an approach in which respondents are administered in identical sets of scale items at two different times under as nearly identical conditions as possible.
- Alternative form: an approach for assessing reliability which requires two equivalent forms of the scale to be constructed and then measures the same respondent at two different times using the alternate forms.
- Internal consistency: which is used to assess the reliability of the summated scale or subscale where scores for several items are summed to form a total score for a construct. It consists of two types of measurement which are split half reliability and Cronbach's alpha.

For the purpose of the study only Cronbach alpha was used whereby reliability coefficients were computed for the servicescape factors, desire to stay and future attendance dimensions.

### **3.9.1 Cronbach alpha**

Cronbach alpha also referred to as coefficient alpha is the technique of taking the average of all possible split halves to measure the internal consistency of multi-dimensional scales (Hair *et al.*, 2000:391). Cronbach alpha is an index of reliability associated with the variation accounted for by the true score of the underlying construct (Santos, 1999:2). Cronbach alpha (coefficient alpha) varies from 0 to 1 and a value of 0.60 or less generally indicates unsatisfactory internal consistency reliability (Malhotra & Peterson, 2006:274). Cronbach alpha reliability is reported in section 4.7 of the study.

## **3.10 VALIDITY ISSUES**



Validity is the extent to which the measuring device, i.e. the questionnaire measures what it was designed to measure and asks the question “are we measuring what we want to measure?” (Dillon *et al.*, 1993:293). In the current study construct, content, predictive, convergent and discriminant validity were used to measure validity.

### **3.10.1 Content validity**

Wayne and Stuart (2001:47) define content validity, sometimes called “face validity”, as the method where expert opinion on each question on the instrument is gathered to determine whether or not it actually tests what it is supposed to. The authors further state that the expert/s must agree that the questions as a whole constitute a valid and representative test of the variable being measured. Kobus (2007:145) asserted that content validity refers to the instrument that covers the complete content of the particular concepts that are supposed to be covered.

To ensure content validity of the research instrument, a review of relevant literature to see how other researchers have measured the concept was undertaken and different sources of evidence were used. In addition, factor analysis was also used as an indirect measure of content validity. Content validity is reported in section 4.8.1 of the study.

### **3.10.2 Construct Validity**

Construct validity determines whether a measured variable actually measures the conceptual variable that it is designed to measure (Stangor, 2007:88). Kobus (2007:217) claims that construct validity are needed for standardisation and it has to do with how well the construct covered by the instrument is measured by different groups of related items. In construct validity, the scores of an instrument reflect the desired construct rather than some other construct (Bless *et al.*, 2006:159). Unreliable scores cannot have any construct validity because they are mostly due to random error while reliable scores can reflect a construct other than the one that is being measured (Bless *et al.*, 2006:159). Construct validity was undertaken in a pilot-test of the questionnaire. The pilot-test is reported in section 4.8.1 of the study.

### **3.10.3 Convergent Validity**

Convergent validity is the degree of correlation among different measures that purport to measure the same concept (McDaniel & Gates, 1999:312). Zikmund and Babin (2007:324) define convergent validity as the other way of expressing internal consistency. According to Bless *et al.*, (2006:159) convergent validity is the relationship between the scale used and other scales that are intended to measure the same concept. Pearson's correlation coefficient was used to measure convergent validity. Convergent validity is reported in section 4.8.2 of the study.

### **3.10.4 Predictive Validity**

Predictive validity of survey is a measure of agreement between results obtained by the evaluated instrument and results obtained from more direct and objective measurement. According to (McMillan & Schumacher, 2006:181) predictive validity is the criterion that is measured after the instrument has been administered. In predictive validity the instrument used predicts the outcomes that are theoretically expected (Muijs, 2004:67). Predictive validity is the type of criterion validity that is used to foresee the future performance (Jackson, 2008:72). Predictive validity is judged by the degree to which an instrument can forecast the results (Kumar, 2005:155). Predictive validity is often quantified by the correlation coefficient between the two types of measurement obtained for the same target population. The study made use of regression analysis to assess the predictive validity of the scale. Predictive validity is reported in section 4.8.4 of the study.

### **3.10.5 Discriminant validity**

Discriminant validity exists when the scores do not correlate highly with scores from an instrument that measures something different (McMillan & Schumacher, 2006:181). Leedy (1997:34) states that discriminant validity is when a measuring instrument is able to discriminate or differentiate the construct being studied from other similar constructs. Discriminant validity was established through correlation analysis where a negative relationship was established

between the servicescape dimensions and perceived crowding. Discriminant validity is reported in section 4.8.3 of the study.

### **3.11 SYNOPSIS**

Research designs form a cornerstone to the empirical study. In this study a quantitative approach and a survey method were used. An exposition of the sampling design procedure was spelt out in this chapter. The target population, sampling methods, sampling frame, sample size and data collection were clearly described.

A structured questionnaire was used for the collection of data. Pilot-testing was undertaken to ensure reliability and validity of the questionnaire. Statistical analysis and its components were also discussed.

The next chapter covers the analysis, interpretation and evaluation of the research findings; an analysis of the findings of the empirical research that was undertaken.

## **CHAPTER 4**

### **DATA ANALYSIS AND INTERPRETATION**

## **4.1 INTRODUCTION**

Chapter 3 provided an overview of the research design undertaken for the study. The methods and analytical procedures used for the study were outlined. This chapter focuses on the results accomplished from the survey and the statistical procedures which were applied to analyse the findings. Descriptive analysis, factor analysis, correlations, and regression analysis were used to present the results. Finally reliability and validity of the measuring instrument were ascertained. The empirical findings are cross-referenced with the literature relevant to the study.

Data analysis was undertaken in two phases: firstly, pilot testing the questionnaire and secondly, the consolidation of the main survey findings through a more detailed analysis. The data was analysed with a view to addressing the objectives of the study. In order to ensure high quality analysis, all evidence was considered and all major rival interpretations were also addressed.

The next section highlights the data analysis procedures at the pilot phase. This is followed by a descriptive illustration of the main survey findings.

## **4.2 PILOT STUDY**

A pilot study was conducted in order to test the research instrument prior to the main survey (Teijlingen & Hundley, 2001:1). At this stage only the Cronbach alpha reliability was computed as a detailed analysis of the main survey findings is reported in section 4.3.

In the pilot survey, data was gathered from 47 spectators from two different stadia, namely; Soccer City and Orlando Stadium. The questionnaire comprised five sections. The first section included the elements of the servicescape. The second section consisted of the approach-avoidance behaviour of spectators, that is, their desire to stay in the stadia. The third section concentrated on spectators' perceived overcrowding at stadia during the games. The fourth section sought information regarding the future attendance of spectators at the two stadia. The

fifth section comprises demographic information of spectators. A five point Likert scale (ranging from 5=strongly agree, to 1=strongly disagree) was used in sections A, B, C and D. In Section E (demographic variables) dichotomous and multiple choice questions were used.

The analysis procedure regarding the pilot study examined only the internal consistency scale using Cronbach's Alpha coefficient for sections A, B, C and D which is reviewed in the next section.

#### 4.2.1 Reliability at the pilot stage

The internal reliability results are summarised in Table 4.1.

**Table 4.1 Summary of reliability values for the pilot study**

SECTION	NO OF VARIABLES	MEAN	STANDARD DEVIATION	N	CRONBACH ALPHA
A- Sportscares	40	144.66	22.854	47	0.946
B- Desire to stay	4	15.32	3.170	47	0.783
C- Perceived overcrowding	5	12.96	5.793	47	0.906
D- Future attendance	4	15.38	3.314	47	0.820

According to (Malhotra & Peterson, 2006:274) if the scale items for surveys maintain values of 0.60 or larger during the early stages of research then reliability is considered to be satisfactory. The Cronbach's alpha values achieved this criterion as the variables in section A to D achieved this value (> 0.60).

#### 4.3 ANALYSIS OF THE MAIN SURVEY

The descriptive analysis for sections B, C, D and E was undertaken through frequencies and percentages to describe the responses of respondents' desire to stay, perceived crowding and future attendance at stadia. Descriptive statistical analysis represents a more efficient means of summarising the characteristics of large sets of data (McDaniel & Gates, 1998:495). Descriptive analysis for section A was not undertaken as the main purpose of the section was to establish the factor structure through a factor analysis procedure. The factor analysis procedure and factor extraction is elucidated in Section 4.4.

### 4.3.1. Section B: Desire to stay at stadiums

The data from Section B of the questionnaire aimed to establish respondents' opinion on their desire to stay at stadiums. Figure 4.1 summarises the interest of spectators on spending time at stadia. Approximately 28% (n=48) strongly agreed that they enjoy spending time at stadia, followed by 42% (n=72) who agreed, 18% percent (n=30) were in moderate agreement and 9% (n=15) disagreed and 3% (n=5) strongly disagreed at spending time at stadia.

**FIGURE 4.1 Enjoyment at stadia**

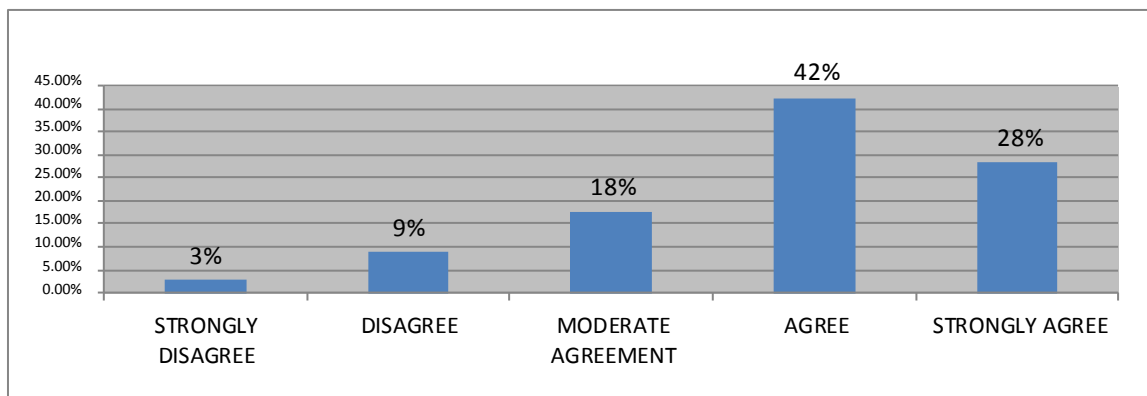


Figure 4.2 illustrates respondents' likeliness to stay at the stadium for as long as possible. Approximately 19% (n=32) strongly agreed, 39% (n=66) agreed and 26% (n=45) were in moderate agreement that that they like to stay at the stadium as long as possible.

**FIGURE 4.2 Likelihood to stay at the stadium as long as possible**

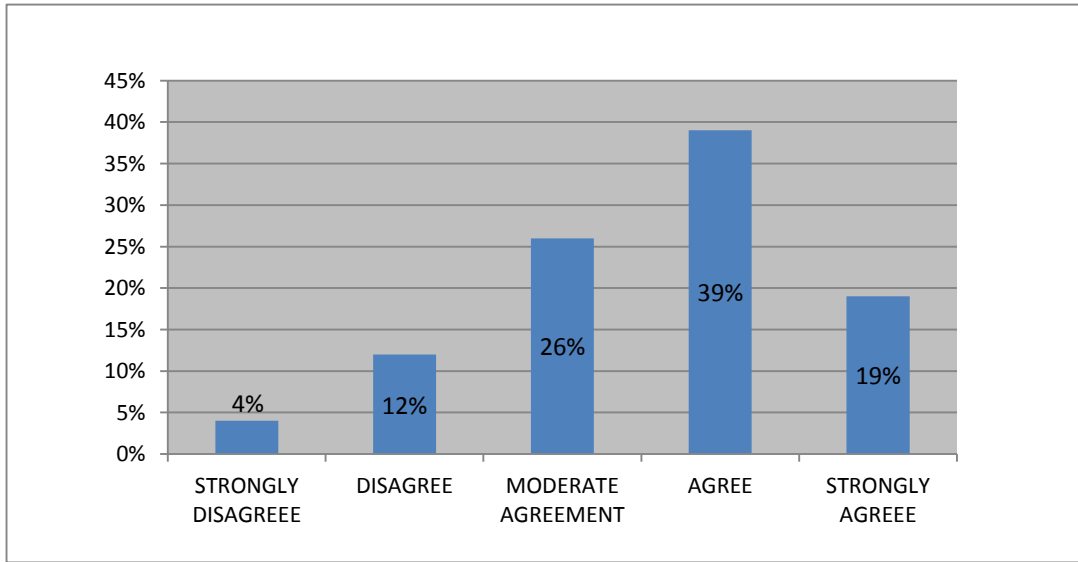


Figure 4.3 reports on spectators' willingness to remain at the stadium until the end of the game. Majority of the respondents preferred to stay at the stadiums until the end of the game (24%+34%+35%; n=155). Approximately 4% (n=7) strongly disagreed and 3% (n=6) disagreed that they stay at the stadium until the game is over.

**FIGURE 4.3 Stay until the end of the game**

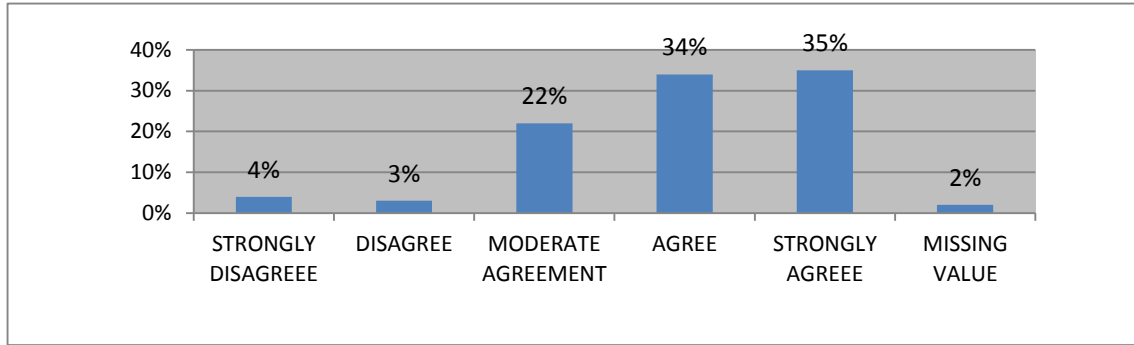
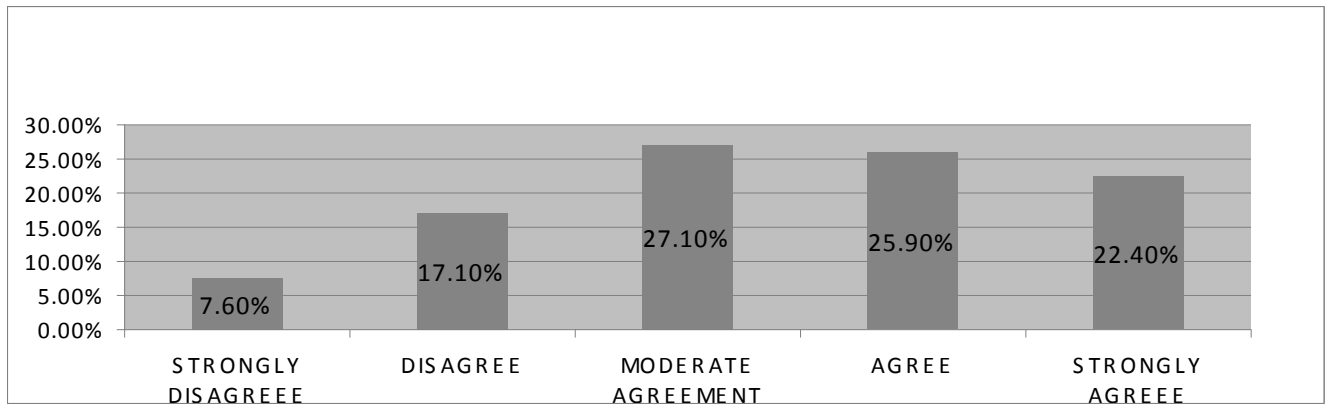


Figure 4.4 reports on spectators who stay within the facility longer than they have to. Approximately, 7.6% (n=13) strongly disagreed, 17.1% (n=29) disagreed that they stay at the stadium longer than one has to while 27.1% (n=46) moderately agreed, 25.9% (n=44) agreed and 22.4% (n=38) strongly agreed that they stay at the stadium longer than they have to.

**FIGURE 4.4 Stay at the stadium for longer than one has to**



### 4.3.2 Section C: Perceived overcrowding

Data from Section C of the questionnaire aimed to establish respondents' opinion on perceived overcrowding at stadia. Figure 4.5 illustrates that of 170 respondents, 17.6% (n=30) strongly disagreed that they feel constraints when attending games at stadia, 24.7% (n=42) disagreed, 30% (n=51) were in moderate agreement, 15.3% (n=26) agreed and 12.4% (n=21) strongly agreed that they feel constrained when attending games at stadia.



**FIGURE 4.5 Feeling of spectators being constrained as a result of overcrowding**

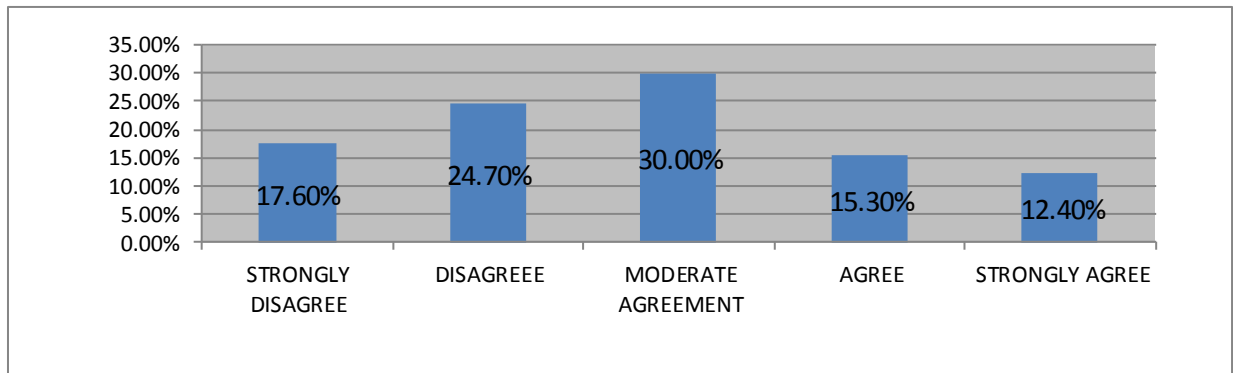


Figure 4.6 reports on the respondents' feeling of stuffiness whilst at the stadia. The findings also reveal that 34.1% (n=58) strongly disagreed that they feel stuffy in stadia, 17.1% (n=29) disagreed, 24.7% (n=42) were in moderate agreement, 11.8% (n=20) agreed and 12.4% (n=21) strongly agreed that they feel stuffy in stadia.

**FIGURE 4.6 Feeling stuffy at stadia due to overcrowding**

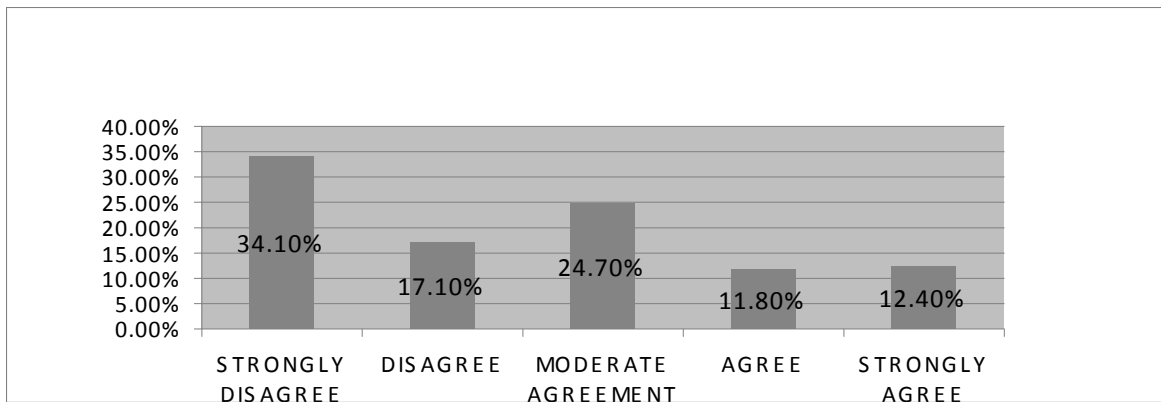


Figure 4.7 reports on respondents' feeling of being overcrowded at stadia. Approximately 20.6% (n=35) of respondents strongly disagreed, 22.6% (n=38) disagreed, 21.8% (n=37) were in moderate agreement, 17.6% (n=30) agreed and 17.6% (n=30) strongly agreed that they feel overcrowded during games at stadia.

**FIGURE 4.7 Feeling of being overcrowded**

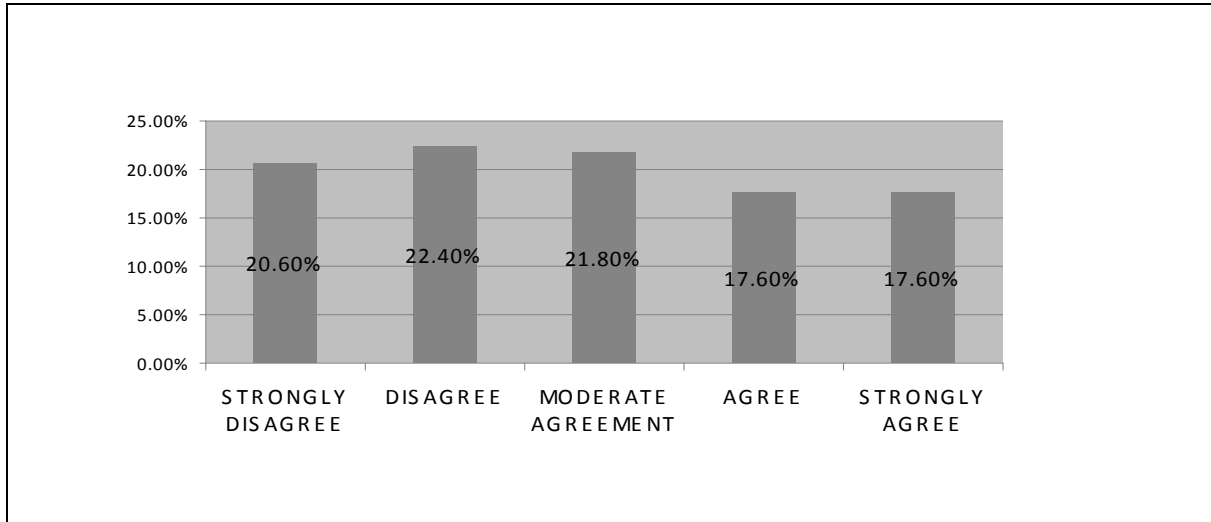


Figure 4.8 reports on respondents' feeling of being cramped at stadia. Approximately 19.4% (n=33) were in moderate agreement, 14.1% (n=24) agreed, while 9.4% (n=17) strongly agreed that they feel cramped when seated at stadia.

**FIGURE 4.8 Feeling of being cramped**

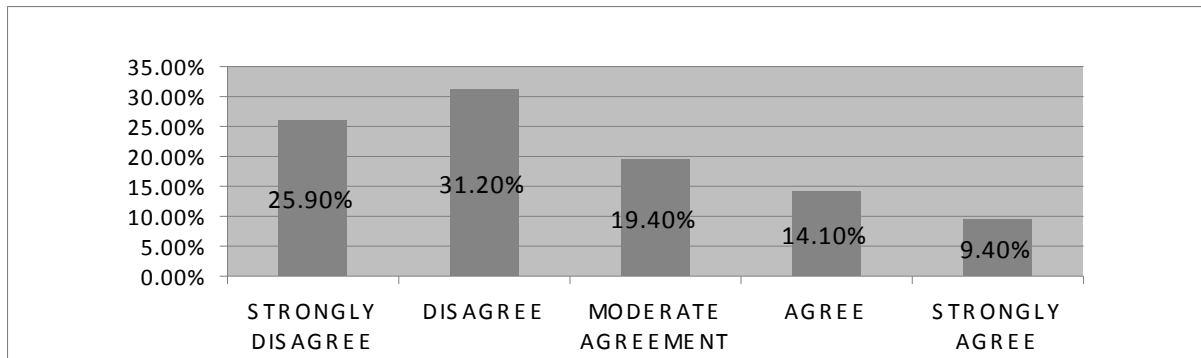
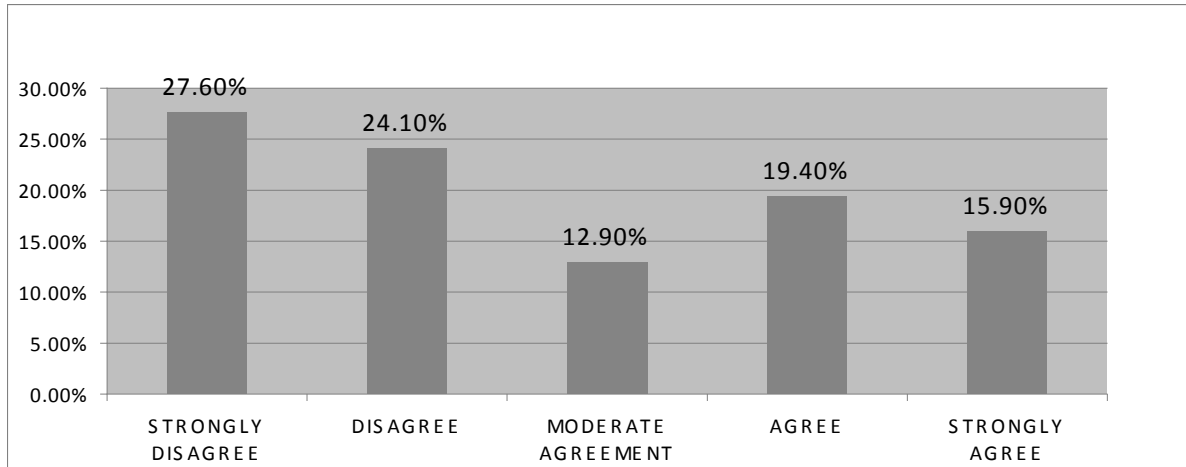


Figure 4.9 reports on respondents' feelings of being restricted when seated at stadia. Approximately 27.6% (n=47) strongly disagreed, 24.1% (n=41) disagreed, 12.9% (n=22) were in moderate agreement, 19.4% (n=33) agreed and 15.9% (n=27) strongly agreed that they feel restricted when seated at stadia.

**FIGURE 4.9 Feeling of being restricted when seated in the stadium**



**4.3.3 Section D: Future attendance at stadia**

Section D sought information on spectators’ intentions in terms of future attendance at stadia. Figure 4.10 illustrates that 4.1 % (n=7) strongly disagreed that they will continue to patronise that particular stadium in future, 10.6% (n=18) disagreed and said that they would not patronise the stadium in future, 21.2% (n=36) were moderately in agreement, 34.7% (n=59) agreed and 28.8% (n=49) strongly agreed to patronise the stadium in the future.

**FIGURE 4.10 Continue to patronize the stadium in future**

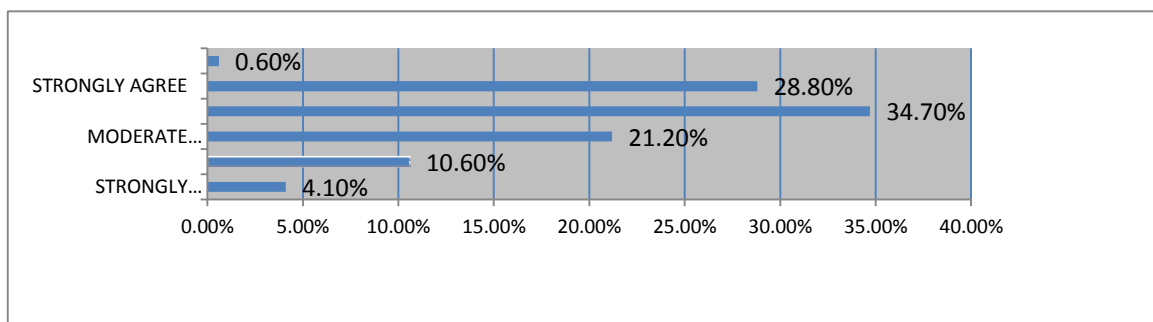
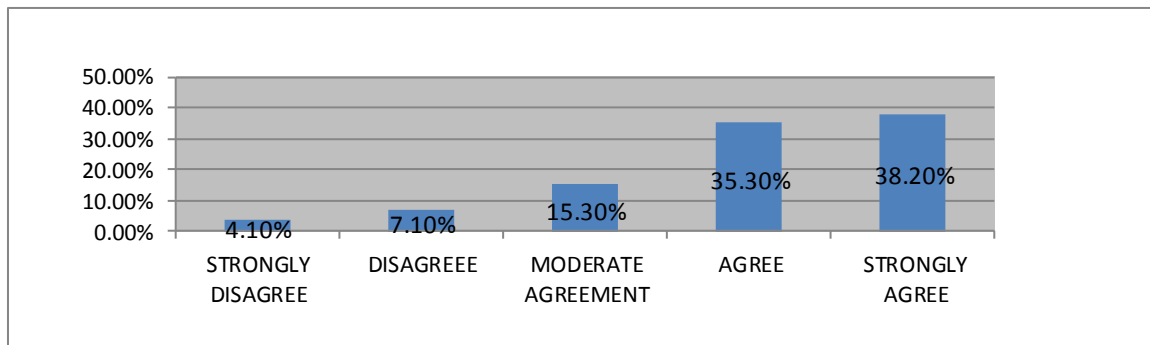


Figure 4.11 highlights responses to the statement on whether or not respondents may recommend the stadium to a friend. Approximately 4.1% (n=7) strongly disagreed, 7.1% (n=12) disagreed, 15.3% (n=26) were in moderate agreement, 35.3% (n=60) agreed and 38.2% (n=65) strongly agreed to recommend the stadium to a friend.

**FIGURE 4.11 Recommendation of the stadium to a friend**

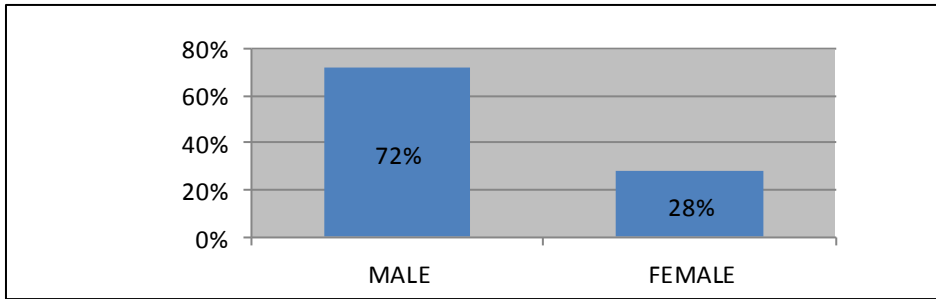


#### 4.3.4 Section E: Demographic data

Section E sought information relating to spectators’ demographics (gender, age, marital status, accompanied by a companion to the stadium, frequency of attendance, qualifications, ethnicity and the stadium attended).

Figure 4.12 shows that there were more male respondents (72%, n=122) than female respondents (28 %, n=48) in the sample.

**FIGURE 4.12 Gender of the respondents**



The age categories of respondents are reported in Figure 4.13. The highest percentage of respondents were in the age category 34-41 years that comprised 35% of the sample (n=60), followed by respondent in the category 25-33 years that comprised 25% of the sample (n=42). Approximately 22% of the sample (n=38) were in the age category 18-25 years, while 14% of the sample (n=23) were in the age category 42-48 years and 4% of the sample (n=7) were over 48 years.

**FIGURE 4.13 Age of the respondents**

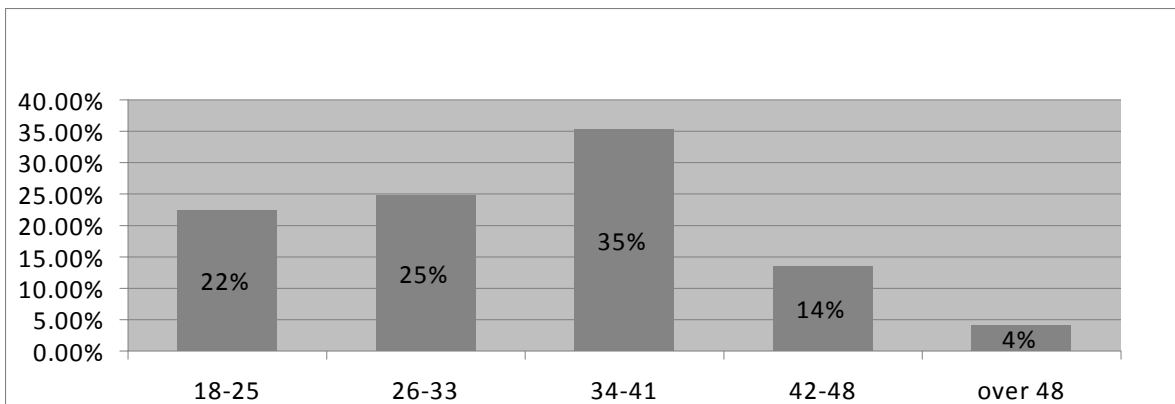


Figure 4.14 reports on the marital status of respondents. Approximately 52% of the sample (n=88) were single, 46% of the sample (n=79) were married and 2% of the sample (n=3) were either divorced or widowed.

**FIGURE 4.14 Marital status of the respondents**

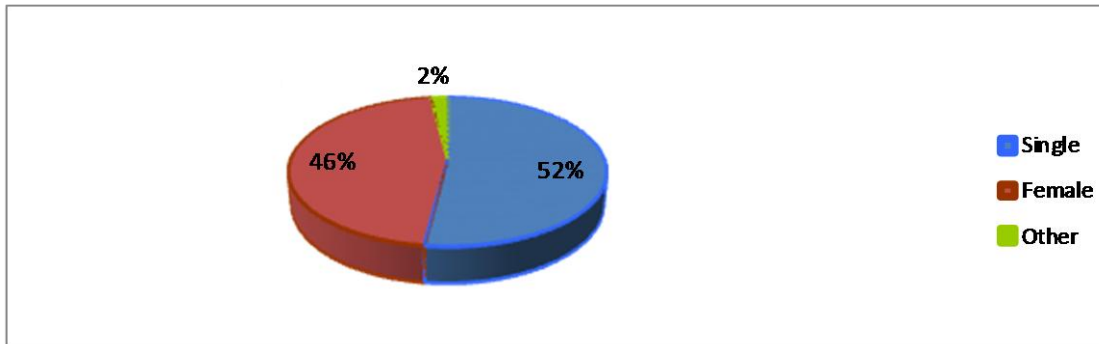


Figure 4.15 reports on respondent's companion when attending games at stadia. The majority of the spectators attended games with their friends 55% (n=93) followed by family members 27% (n=46). Approximately 5% (n=9) of spectators attended the games alone, while 11% (n=18) were accompanied by their boy/girlfriends.

**FIGURE 4.15 Attendance with a Companion at the stadium**

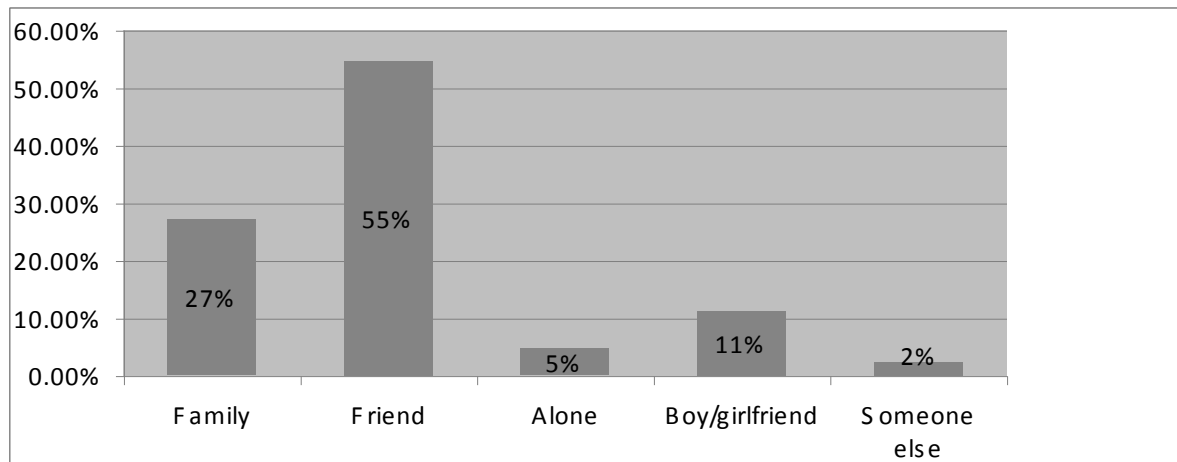
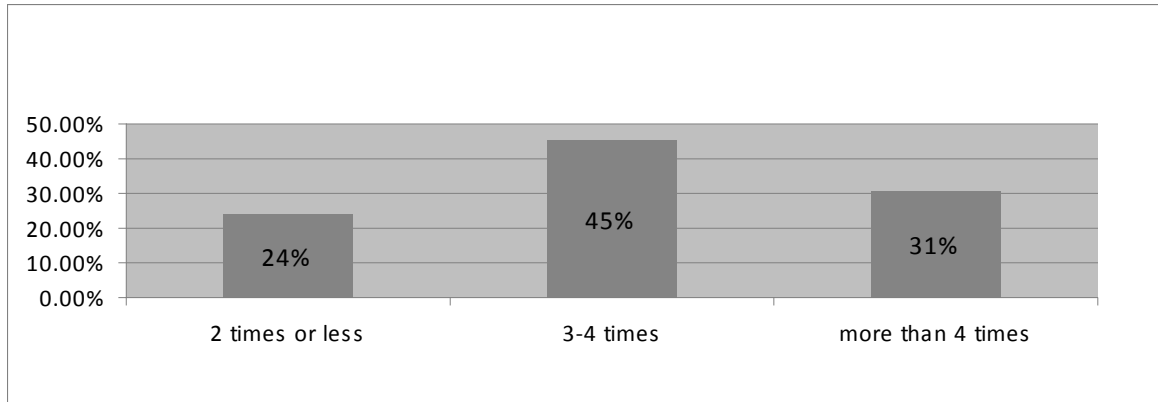


Figure 4.16 reports on the frequency of attendance in games at stadiums in the last three months. Approximately 45% of the sample (n=77) attended soccer games 3-4 times in the season, 31% (n=52) attended soccer games more than 4 times and 24% (n=41) attended games 2 times or less in the season.

**FIGURE 4.16 Frequency of attendance**



In terms of educational qualifications, Figure 4.17 shows that the majority, 70% (n=120) of the respondents were in the possession of some form of college/university education. However, a large number of respondents, 23% (n=40) comprised spectators who were in possession of matriculation certificates or lower 7% (n=10).

**FIGURE 4.17 Respondents' qualifications**

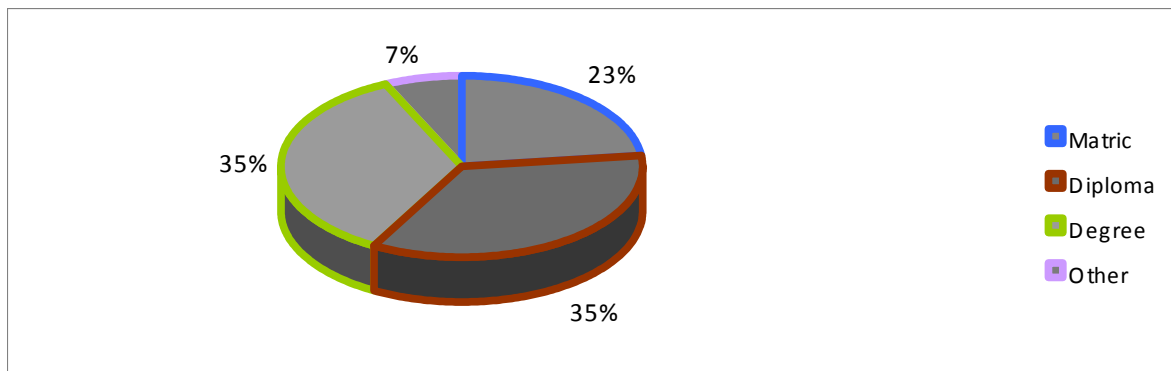


Figure 4.18 indicates that the majority of respondents, 76% (n=129) were African supporters followed by Indians (14%; n=24), Coloured (8%; n=13) and Whites (2%; n=4).

**FIGURE 4.18 Ethnic groups**

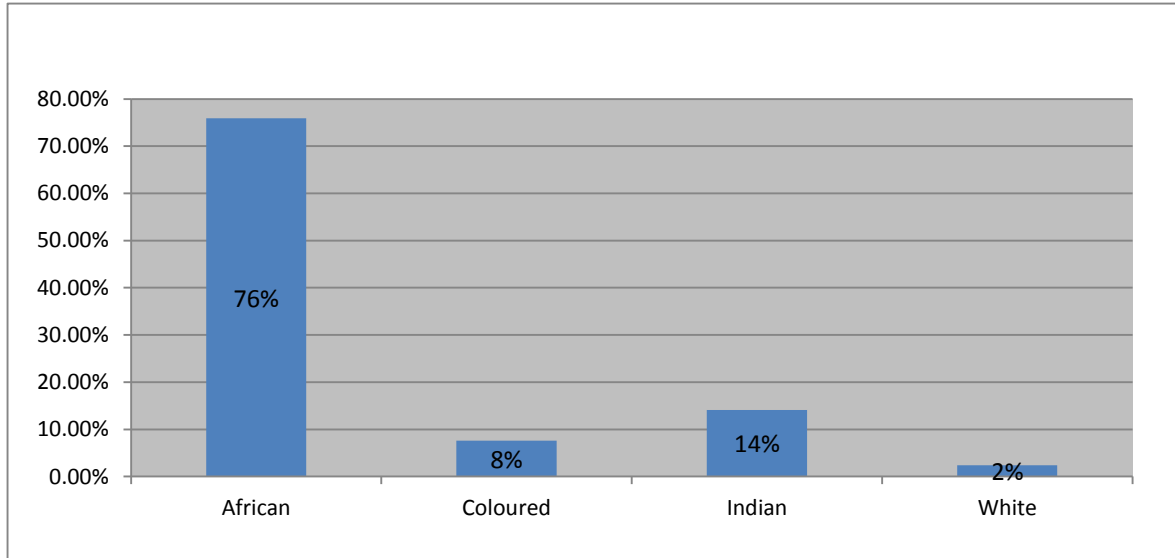
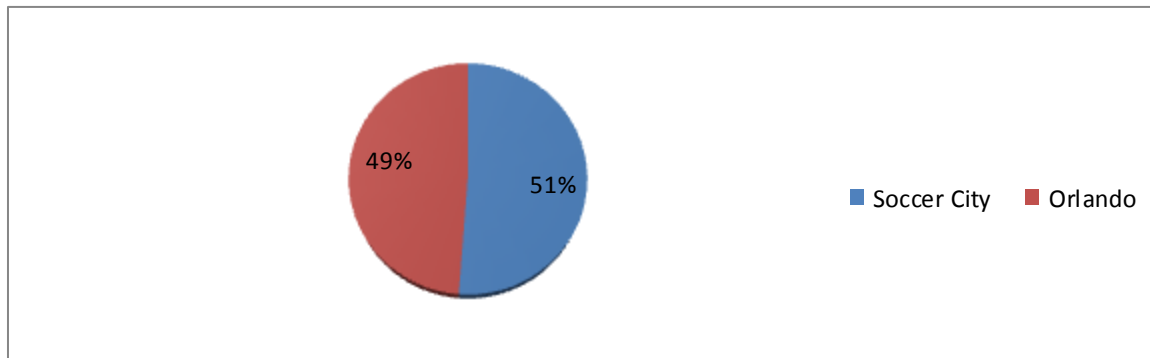


Figure 4.19 reports on the stadia attended by spectators. There was almost even distribution of spectators who attended matches at Soccer City and Orlando stadiums, 51% (n=87) and 49% (n=83) respectively.

**FIGURE 4.19 Stadia attended by spectators**



The next section provides an overview of the analysis through exploratory factor analysis. Section A of the questionnaire on the variables of the sportscapes was used for exploratory factor analysis in order to identify the dimensions of sportscapes.

**4.4 SECTION A: EXPLORATORY FACTOR ANALYSIS (EFA)**



In this section, an overview of factor analysis procedure, methods of extraction, naming and interpretation of factors are discussed.

#### **4.4.1 Overview of the factor analysis procedure used in the study**

For factor analysis to be an appropriate procedure for use in data reduction, the variables must be correlated. To test the appropriateness of factor analysis the Bartlett's test of Sphericity and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy were used. These tests are explained in the next section.

#### **4.4.2 The Kaiser-Meyer-Olkin (KMO) test of sampling adequacy**

The KMO is commonly used to establish whether the set of items is suitable for a factor analysis procedure. Its values range from 0 to 1. A value of 0.70 or more is generally considered sufficiently high while a value below 0.50 is considered unsatisfactory (Norman, 2004:221). The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) for the study was 0.749 which is considered satisfactory for factor analysis.

#### **4.4.3 The Bartlett's Test of Sphericity**

The Bartlett's test of Sphericity is also used to determine whether the variables are suitable for the application of a factor analysis procedure. According to McDaniel and Gates (1999:524) chi-square is the test of the adequacy of the fit between the observed distribution and the expected distribution of a variable. It enables a researcher to determine whether or not an observed pattern of frequencies corresponds to or fits an expected pattern. The approximated chi-square was 2725.998 (df=300) at an observed significance level  $p < 0.000$  indicating that there are correlations between variables in the data set and that it is suitable for factor analysis.

**TABLE 4.2 KMO and Bartlett's tests**

<b>KMO and Bartlett's tests</b>
---------------------------------

Bartlett's Test of Sphericity	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.749
	Approx. Chi-Square	2725.998
	Df	300
	Sig.	.000

#### 4.4.4 Extraction of factors

The purpose of this section was to determine whether or not factors extracted constitute an appropriate factor structure. Three stages were used to determine the extraction of factors namely, eigenvalues, percentage of variance and the scree plot. These methods are elaborated on the next section.

#### 4.4.5 Extraction of factors based on eigenvalues

Initially, the determination of factors to be extracted was based on eigenvalues. An eigenvalue measures the amount of the total variance that each factor accounts for. The higher the eigenvalue, the greater the variance explained by a factor (Norman, 2004:223). Factors with eigenvalues less than 1.0 are not considered because they are no better than a single variable (Malhotra, 2004:567). The eigenvalue extraction for the study showed that seven factors are appropriate to capture the dimensions of sportscapes. Table 4.8 shows the factors and their eigenvalue extraction.

**TABLE 4.3 EIGENVALUES**

Dimension description	No of Items	Eigenvalues

Scoreboard quality	4	9.230
Refreshment provisioning	4	2.810
Facility aesthetics	4	2.124
Space allocation	4	1.667
Stadium accessibility	5	1.463
Seating comfort	3	1.311
Stadium cleanliness	3	1.041
Overall Cronbach alpha value for the scale = 0.924		

#### 4.4.6 Percentage of variance as a method of factor extraction

The second method of extraction used was the percentage of variance. Table 4.8 reports on the cumulative percentage for each factor for the study. The cumulative percentage of variance explained by seven factors was 72%, and this is considered satisfactory (Malhotra 2007:617).

**TABLE 4.4 Percentage of variance**

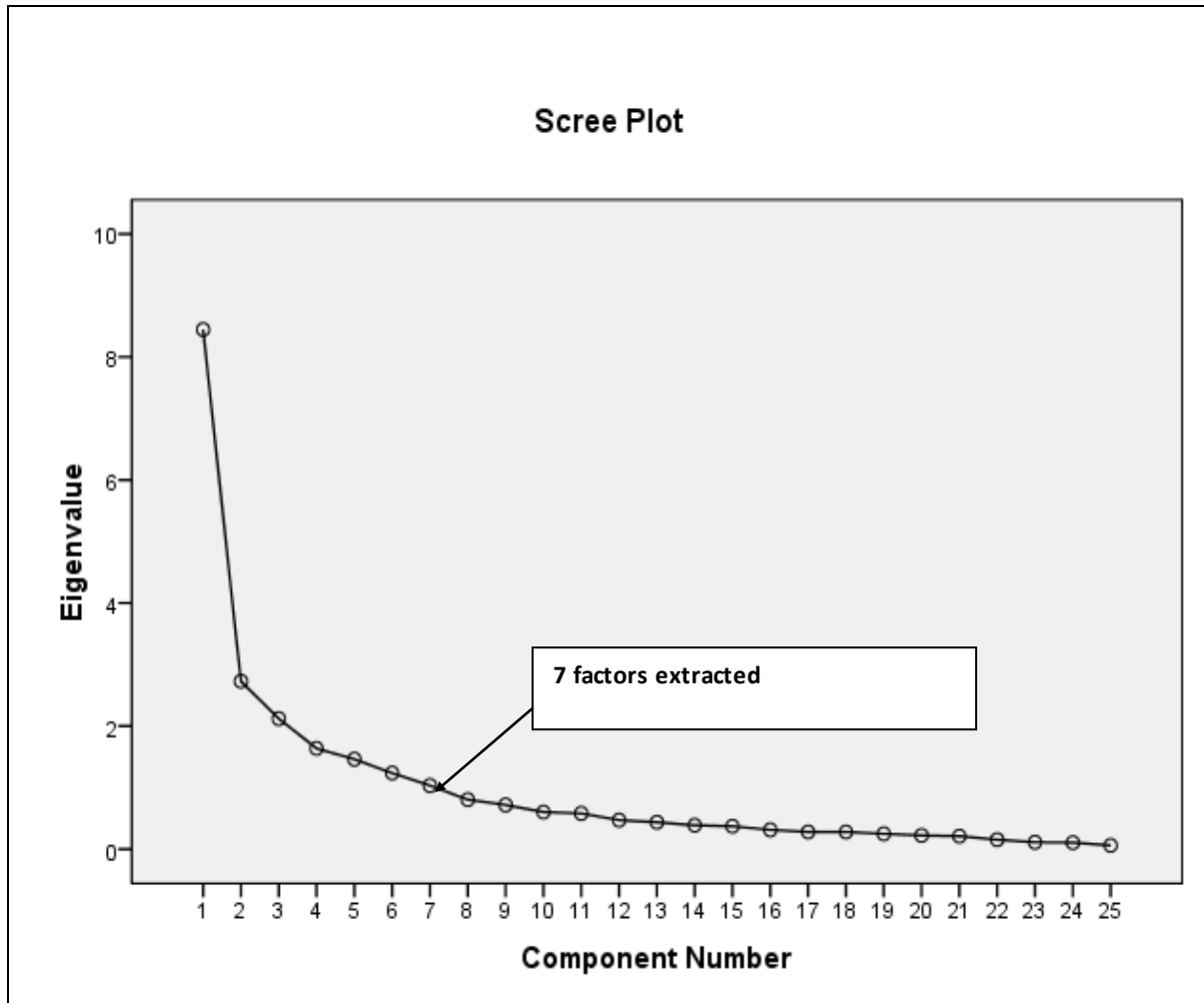
<b>Dimension description</b>	<b>% of variance</b>	<b>Cumulative %</b>
Factor 1	34.185	34.185
Factor 2	10.408	44.593
Factor 3	7.868	52.461
Factor 4	6.175	58.636
Factor 5	5.418	64.054

Factor 6	4.856	68.910
Factor 7	3.854	72.764
Overall Cronbach alpha value for the scale = 0.924		

#### 4.4.7 The Scree plot as a method of factor extraction

A scree plot is a graph in which the eigenvalue, (Y-axis) are plotted against each factor (X-axis) (Norman, 2004:223). A scree plot makes it possible to establish a change of gradient in the magnitude of the eigenvalues. Normally the first factor or two have relatively high eigenvalues and the magnitude decreases and subsequent factors usually show small changes. Figure 4.22 illustrates the number of factors extracted using the scree plot criterion. According to the scree plot seven factors seem to be appropriate for the study. After approximately seven factors, the scree levels off indicating that further extraction of factors do not meaningfully contribute to the description of the sportscape dimensions.

**FIGURE 4.20 Scree plot of eigenvalues-seven factors**



#### 4.4.8 The final factor structure

Scale items often cross-load when a variable has a strong relationship with more than one component. This generally causes problems when interpreting an exploratory factor analysis (EFA) solution. Items that load heavily on more than one factor or low factor loading ( $<0.50$ ) were eliminated. This procedure resulted in the extraction of seven meaningful factors which were labelled scoreboard quality, refreshment provisioning, facility aesthetics, space allocation, stadium accessibility, seating comfort and stadium cleanliness. The final factor structure is reported in Table 4.5.

**TABLE 4.5 ROTATED FACTOR-LOADING MATRIX**

Scale description	Factor 1 Scoreboard quality	Factor 2 Refreshments	Factor 3 Aesthetics	Factor 4 Space allocation	Factor 5 Stadium accessibility	Factor 6 Seating comfort	Factor 7 Stadium cleanliness
Scoreboard is entertaining	<b>.728</b>	.046	.308	.104	.286	.218	-.063
Scoreboards adds excitement	<b>.863</b>	.017	.182	.127	.033	.040	.011
Scoreboard - statistics	<b>.836</b>	.103	-.019	-.141	-.016	.072	.188
High quality scoreboards	<b>.750</b>	.182	.189	.096	.274	.111	.104
Variety of food choices	-.104	<b>.783</b>	.069	.152	.150	.028	.221
Offers tasty food	.022	<b>.862</b>	.088	.094	.104	.102	.116
Like the food offered	.283	<b>.786</b>	.005	.132	.058	.140	-.041
The food is freshly prepared	.357	<b>.618</b>	.110	.121	.087	.287	.213
Restrooms- large to handle the crowds	.082	.134	.158	<b>.739</b>	.115	.268	.266
Walkways wide enough to handle the crowds	.015	.141	.067	<b>.853</b>	.080	.077	.264
Enough space to handle the crowds	-.079	.239	.149	<b>.679</b>	.362	.174	.130
Signs help me know where I am going	.390	.127	.234	<b>.614</b>	.313	-.048	.102
Seat arrangements provide plenty of space	.230	-.031	.140	-.016	<b>.683</b>	.321	.118
Layout makes it easy to get to the seating in the stands	.174	.091	.230	.156	<b>.654</b>	-.036	.121
Layout makes it easy to identify stands	.007	.104	.152	.202	<b>.706</b>	.154	.058
The stadium has safe parking	.053	.391	.077	.186	<b>.512</b>	.047	.385
This stadium is easy to enter before the game	.115	.324	.171	.300	<b>.505</b>	.066	.206
Stadium is painted in attractive colours	.195	.157	<b>.735</b>	.074	.270	-.176	.143
Architecture gives it an attractive character	.093	.204	<b>.745</b>	-.108	.336	.163	.220
Stadium is decorated in an attractive fashion	.082	-.077	<b>.814</b>	.270	.181	.203	.082
This stadium is attractive	.342	.048	<b>.741</b>	.270	.024	.036	-.047

Scale description	Factor 1 Scoreboard quality	Factor 2 Refreshments	Factor 3 Aesthetics	Factor 4 Space allocation	Factor 5 Stadium accessibility	Factor 6 Seating comfort	Factor 7 Stadium cleanliness
Plenty of knee room between seats	.121	.255	.048	.108	.138	<b>.791</b>	.018
Plenty of elbow room between seats	.243	.022	-.046	.088	.219	<b>.851</b>	.055
Maintains clean restrooms	.355	.036	.170	.223	-.029	.321	<b>.667</b>
The stadium maintains clean seating areas	.096	.197	.095	.278	.315	-.025	<b>.737</b>
The stadium maintains clean exits	-.013	.231	.096	.255	.228	.046	<b>.747</b>
Concession stands big enough to handle crowds	-.081	.269	.330	.304	-.010	<b>.595</b>	.220
Extraction method: Principal component with varimax rotation and Kaiser normalisation							

#### 4.4.9 Naming and interpretation of factors

Factor 1, labelled *scoreboard quality*, comprised four variables and accounted for 34% of the variance explained by the factor. The eigenvalue was 9.230. Table 4.6 reports on the loading of each variable relating to scoreboard quality. There are various types of scoreboard technology available which do not only show scores but can also be used for instant replays and sport news. These types of scoreboards add excitement to the game and entertain spectators during momentary lulls in the game.

Dubihlela, Dhurup and Surujlal (2010: 491-509) reported that entertainment was important as it is one of the key factors that influence the attendance of spectators at sporting events. Scoreboard quality has a positive effect on spectators' pleasure in the stadium experience (Wakefield *et al.*, 1996:21).

**Table 4.6 Scoreboard Quality**

Factor 2, labelled *refreshment provisioning* comprised four variables and accounted for 10% of the variance explained by the factor. The eigenvalue was 2.810. Table 4.7 reports on the loading of each variable relating to refreshment provisioning. Variety of meals, high quality of meals and freshly prepared foods are essential in creating a positive service encounter within a

<b>VARIABLE DESCRIPTION</b>	<b>FACTOR LOADING</b>
This stadium's scoreboard is entertaining to watch	0.728
This stadium's scoreboards adds excitement to the game	0.863
This stadium provides interesting statistics	0.836
This stadium has high quality scoreboards	0.750

facility.

**Table 4.7 Refreshment provisioning**

<b>VARIABLE DESCRIPTION</b>	<b>FACTOR LOADING</b>
The stadium offers a variety of food choices	0.783
The stadium offers tasty food	0.862
I like the food offered at this stadium	0.786
The food at this stadium is freshly prepared	0.618

Factor 3, labelled *facility aesthetics* comprised four variables and accounted for 8% of the variance explained by the factor. The eigenvalue was 2.124. Table 4.8 reports on the loading of each variable relating to facility aesthetics. Facility aesthetics is a function of architectural design (Wakefield & Blodgett, 1994:68). Aesthetic factors refer to the physical elements which spectators view to evaluate stadium artistic quality (Harris & Ezeh, 2007:65). These elements are the extras that contribute to a spectators' sense of pleasure when watching a game. Stadium design, décor and facility attractiveness are important facets of the sportscape. Spectators spend hours inside a stadium and its features can increase their positive or negative attitudes of its



aesthetic qualities. Newer stadia facilities attract fans due to their comfort and better view of the game. Teams playing in new facilities attract more fans for sustained period of time and those fans would come to new state-of-the-art venues built according to a sport mall concept loaded with amenities and entertainment options that sustain interest regardless of team performance (Howard & Crompton, 2003:111). Dhurup (2010:216) suggested that the sport mall concept is a trend in arena construction and incorporates multiple entertainment options in conjunction with the arena. The newly renovated Soccer City Stadium (formerly FNB stadium) for the 2010 FIFA World Cup™ is a first-rate example of a stadium which accommodates other types of sport besides soccer.

**Table 4.8 Facility aesthetics**

<b>VARIABLE DESCRIPTION</b>	<b>FACTOR LOADING</b>
This stadium is painted in attractive colours	0.735
This stadium's architecture gives it an attractive character	0.745
This stadium is decorated in an attractive fashion	0.814
This stadium is attractive	0.741

Factor 4, labelled *space allocation* comprised four variables and accounted for 6% of the variance explained. The eigenvalue was 1.667. Table 4.9 reports on the loading of each variable relating to space allocation. An effective space allocation with adequate restrooms to handle large crowds, with broad walkways and proper signage enables spectators to reach their desired destinations such as the seats or seating stands with minimal discomfort. The overall effect of the space allocation should make spectators' feel as if they can easily locate and get to where they want to go (Wakefield *et al.*, 1996: 21).

According to McGoldrick and Pieros (1998:176) crowding is an environmental variable that has an impact on spectator-stadium environment interaction. If spectators perceive that there are too few restrooms or seating then they are likely to perceive that the stadium is too crowded and may avoid the use of the facility in the future.

The number, size and proximity of restrooms, seats and concession stands may influence spectators' perceptions of their convenience or accessibility. The effectiveness of the interior layout is a function of available space allocation and suitable way-finding either directional or informative (i.e. signage to guide spectators through the layout) (Wakefield *et al.*, 1996:22).

**Table 4.9 Space allocation**

<b>VARIABLE DESCRIPTION</b>	<b>FACTOR LOADING</b>
The restrooms are large enough to handle the crowds	0.739
The walkways are wide enough to handle the crowds	0.853
This stadium allows enough space to handle the crowds	0.679
Signs at the stadium help me know where I am going	0.614

Factor 5, labelled *stadium accessibility* comprised five variables and accounted for 5% of the variance explained. The eigenvalue was 1.463. Table 4.10 reports on the loading of each variable relating to stadium accessibility. The general stadium should be designed in such a way that spectators can easily enter and exit it. Low-tolerance and task-oriented individuals may experience frustration if locating a parking space and walking into the stadium requires excessive amounts of time (Lee *et al.*, 2003:1). Spectators dissatisfied with parking conditions are likely to leave a game early and express less satisfaction with their stadium experience (Wakefield & Sloan, 1995:156).

**Table 4.10 Stadium accessibility**

VARIABLE DESCRIPTION	FACTOR LOADING
This is plenty of knee room between the seats	0.791
There is plenty of elbow room between the seats in this stadium	0.851
The concession stands are big enough to handle the crowds in this stadium	0.595

Factor 6, labelled *stadium seating* comprised three variables and accounted for 4.8% of the

variance. The eigenvalue was 1.311. Table 4.11 reports on the loading of each variable relating to stadium seating. Studies on servicescapes have shown that proper and comfortable seating can enhance spectators' evaluation of the service environment where they sit for extended periods of time (Wakefield *et al.*, 1996:54). Authors further state that seats may also be comfortable/uncomfortable due to their proximity to other seats as spectators may experience physical and psychological discomfort if they are forced to sit too close to other spectators

**Table 4.11 Stadium seating**

<b>VARIABLE DESCRIPTION</b>	<b>FACTOR LOADING</b>
Seating arrangements provide plenty of space in this stadium	0.683
This stadium provides comfortable seats	0.654
This stadium's layout makes it easy to get to the seating stands	0.706
This stadium's layout makes it easy to get to your seat	0.512
This stadium's layout makes it easy to get to the restrooms	0.505

Previous researches related to perceived overcrowding (Machleit & Eroglu, 1990:203; Hui & Bateson, 1991:174; Wakefield & Blodgett, 1996:48) suggests that cramped seating is likely to be perceived as displeasing and of poor quality. The amount of space between rows of seats is also an important dimension, in that it affects the ease with which spectators may exit from their seats to use ancillary service areas such as restrooms and return to their seats thereafter.

Factor 7, labelled *stadium cleanliness* comprised three variables and accounted for 3.8% of the variance. Table 4.12 reports on the loading of each variable relating to stadium accessibility. The maintenance of clean restrooms, clean seating areas and general cleanliness of the stadium are pertinent aspects of a stadium. Cleanliness is the facet of the general ambience pertaining to the five senses. Cleanliness can affect the emotional well-being, perception, attitudes and behaviour of spectators attending games at the stadium. Thus, if the stadium is perceived as unclean and negative, these negative emotions may create avoidance behaviours which may impact on spectators not visiting the stadium in the future. According to Wakefield and Sloan (1995:157) stadium cleanliness is a primary function of stadium service that may also be influenced by architectural design and age. Older stadiums that have not been properly maintained and are difficult to clean due to cracks in surfaces and peeling paint may discourage spectators to patronise the stadium in the future.

**Table 4.12 Stadium cleanliness**

<b>VARIABLE DESCRIPTION</b>	<b>FACTOR LOADING</b>
The stadium maintains clean restrooms	0.667
The stadium maintains clean seating areas	0.737
The stadium maintains clean exits	0.747

In summary, these seven factors appear to be important determinants in establishing the facets of sportscares within a stadium context. These aspects of the sportscares may provide some indication of how pleased spectators are within a stadium environment which ultimately influences future approach or avoidance behaviour at stadiums.

#### **4.5 MEAN RATING OF DIMENSIONS**

In addition the sportscares factors were rated in terms of their summated means in order to establish the importance of each factor. Table 4.13 reports on the summated means of each dimension of stadium sportscares.

**TABLE 4.13 Mean rating of dimensions in terms of importance**

Dimension description	N	Minimum	Maximum	Mean
Scoreboard quality	170	1	5	3.70
Refreshment provisioning	170	1	5	3.14
Facility aesthetics	170	2	5	3.90
Space allocation	170	2	5	3.52
Stadium accessibility	170	1	5	3.58
Seating comfort	170	1	5	3.39
Stadium cleanliness	170	1	5	3.49

Facility aesthetics was ranked the most important (mean=3.90) followed by scoreboard quality (mean=3.70) and stadium accessibility (mean=3.58). The lowest mean rating turned out to be refreshment provisioning (mean=3.14). However, it should be noted that on a rating of 3 and above, all dimensions are moderately important. The results indicate that in order for stadium managers to maintain sustained patronage all sportscape attributes need to be enhanced in order to create a total sport experience for spectators as opposed to focusing on a single dimension.

#### 4.6 REGRESSION ANALYSIS

Regression analysis in Table 4.14 shows significant relationships between the stadium sportscares and desire to stay within the stadium ( $R^2 = 0.453$ ) and ( $R^2 = 0.264$ ) respectively. Results show that of the seven possible linear relationships, refreshments and space allocation dimensions were found to be significantly directly related to the desire to stay within a stadium and four dimensions namely, scoreboard quality, refreshments, seating comfort and stadium cleanliness were found to be significantly directly related to future stadium attendance.

**Table 4.14 Regression analysis of stadium sportscares with desire to stay and future attendance**

Desire to stay				Future attendance			
Variable to enter	Beta	t	sig	Variable to enter	Beta	t	sig
Factor 1 Scoreboard	-.010	-.147	.883	Factor 1 Scoreboard	.167	2.081	.039
Factor 2 Refreshments	.139	2.128	.035	Factor 2 Refreshments	.131	1.729	.086
Factor 3 Aesthetics	.088	1.245	.215	Factor 3 Aesthetics	.291	3.566	.000
Factor 4 Space allocation	.380	3.521	.001	Factor 4 Space allocation	-.037	-.296	.768
Factor 5 Accessibility	.081	1.068	.287	Factor 5 Accessibility	-.026	-.296	.768
Factor 6 Seating comfort	.032	.157	.876	Factor 6 Seating comfort	.560	2.363	.019
Factor 7 Cleanliness	.163	1.023	.308	Factor 7 Cleanliness	-.387	-2.089	.038
R = 0.690; R <sup>2</sup> = 0.476 R <sup>2</sup> = 0.453 (adjusted)				R = 0.542; R <sup>2</sup> = 0.294 R <sup>2</sup> = 0.264 (adjusted)			

Expressed as a percentage, the adjusted  $R^2 = 0.453$  and  $R^2 = 0.264$  values in Table 3 signify that the regression model explained approximately 45 per cent and 26 per cent respectively of the variance in desire to stay and future stadium attendance. The Beta coefficients indicate that factor 1 scoreboard quality does not positively contribute to the prediction of spectators desire to stay within a stadium facility. The desire to stay within a stadium predicted by refreshment provisioning within a stadium ( $\beta=0.139$ ), aesthetics ( $\beta = 0.088$ ), space allocation ( $\beta=0.380$ ), accessibility ( $\beta = 0.081$ ), seating comfort ( $\beta=0.032$ ) and stadium cleanliness ( $\beta = 0.163$ ) made significant contributions with spatial allocation within the stadium making the largest contribution. Future attendance at a stadium is positively predicted by scoreboard quality ( $\beta = 0.167$ ), refreshment provisioning ( $\beta = 0.131$ ), stadium aesthetics ( $\beta = 0.291$ ) and seating comfort ( $\beta = 0.560$ ). Seating comfort, followed by aesthetics made the largest contributions to future return to a stadium.

The fact that the *quality of scoreboard* and its various functional and technological abilities did not predict spectators desire to stay within a stadium does not make the dimension unimportant

as choice behaviour is a rather complex phenomenon and it is unrealistic to assume that all variables can account for a substantial proportion of variability (Schiffman, Dash & Dillon, 1977:3-14). Research has also shown that the more a spectator visits a stadium, the more spectators place some factors in their subconscious level and unless the factors such as the availability of quality scoreboards causes a substantial (negative or positive) surprise the spectator will not notice it (Spies, Hesse & Loesch, 1997:1-17). This theory is embedded in Kano's quality model and more specifically, the basic needs dimension (must-be-needs) (Zhang & Von Dran, 2002:9-33). Basic needs are the minimum attributes acceptable to spectators (Shen, Tan & Xie, 2000:91-99) and encompass attributes spectators take for granted. Their presence goes unnoticed, but their absence will generate complaints and dissatisfaction. Previous research did not highlight *refreshment provisioning* as an essential attribute within a sportscape. Given that stadium sportscares a form of a leisure setting whereby spectators come in very much earlier to witness an entertaining game in order to avoid traffic congestions and spend extended periods of time within the facility, adequate and appropriate meal provisioning may be essential.

The environmental *aesthetic* is influenced by the architectural design and decor which contribute to the attractiveness of the sportscares (Wakefield *et al.*, 1996:19). Hence, when spectators enter a stadium they are likely to evaluate the attractiveness of the facility either consciously or subconsciously. This may increase the positive or negative effects of the aesthetic qualities. Bitner (1992:59) is of the view that visual elements related to aesthetic appeal are implicit communicators of an environment where a service is performed and these tangible cues convey and enhance a certain mood or image in the service environment. Research into environmental psychology affirms that the layout and functionality, entrances, exits, interior and exterior design features influence social intimacy which provide intrinsic cues upon which beliefs are formed about an organisation's effectiveness (Nguyen & Leblanc, 2002:242-262). Arnold and Devlin's (2002:345-360) use of an experimental approach confirms that in part, an individual makes an assessment of a sportscares based on the design features and furnishing of the facility. Wakefield and Blodgett (1994:67) found that aesthetic factors and the facility layout in leisure service settings may attract spectators or discourage them from frequenting or returning to a facility.

*Space allocation* and facility layout refers to the ways in which the seating, restrooms and restaurants within the stadium are arranged and the spatial relationship between them. Russell



and Pratt (1980:311-322) concluded that the emotion-eliciting qualities of environments such as seating comfort, space utilisation and accessibility are responded to by pleasure-displeasure and stimulation or excitement. For example, environments that elicit feelings of pleasure are likely to be the ones where spectators want to spend time and money whereas unpleasant environments are avoided (Donovan & Rossiter, 1982:36). Similarly, arousing environments are viewed positively unless the excitement is combined with facilities which are unpleasant. Other environmental dimensions such as clear signage and adequate space may also increase the perceptions of personal control within a facility (Bitner, 1992:66).

*Stadium accessibility* is of initial concern for a spectator approaching the sportscape. The availability, proximity and entry to a stadium parking may enhance or detract from spectators' pleasure with the sportscape (Wakefield & Blodgett, 1996:55). A properly planned layout of a stadium enables spectators to reach their desired destinations such as seats, restaurants or restrooms with a minimal amount of discomfort. Ineffective layouts in a sportscape may prohibit free movement and are expected to result in spectators feeling confined and restricted. Problems regarding stadium accessibility may occur with poorly designed stadia as well as space allocation especially when the service areas are hidden behind huge concrete walls which may give the impression that the service areas are difficult to reach.

Assessments related to the physical experience, as noted by Wakefield and Blodgett (1996:54); affirm that *seating comfort* becomes essential where spectators sit in a venue on the "same seat for extended periods of time". Most people attending a soccer game or other spectator sports expect and may even want a 'good crowd' but they do not want to feel overcrowded or uncomfortable because seats are too narrow, too close together or because ancillary facilities are not adequately designed to handle the crowds effectively (Machleit & Eroglu, 1990:204; Hui & Bateson, 1991:174-184). Hence, "the internal layout of a stadium may either ease or restrict movement, thereby evoking a sense of crowding or spaciousness" (Aubert-Gamet, 1997:28). Finally, the importance of *cleanliness* is manifested in a high number of studies which directly associate cleanliness with spectators' evaluation of the sportscares and future consumption behaviour. Spectators demand a high level of cleanliness regarding levels of sanitation and hygiene when they are present within a sportscares (Rosenquist, 2005:335-346). The importance

of cleanliness within a service environment has been highlighted in the literature Berta, (2005:120-122) and Marinucci (2002:7) aptly sum up that “marketing-wise, cleanliness makes perfect good sense”. Wakefield and Sloan (1995:157) assert that cleanliness is an essential component of sportscares.

In summary, the regression models depict that spatial allocation and functionality followed by stadium cleanliness made the greatest impact on the desire to stay within a sportscares and seating comfort and facility aesthetics significantly contributes to future patronage intentions.

#### **4.7 RELIABILITY ANALYSIS**

A Cronbach alpha coefficient test was undertaken to establish the reliability of the sportscares scale. The resultant coefficient alpha of 0.92 indicated that the scale items performed adequately in capturing the elements of stadium sportscares. The internal consistency of the sportscares scale was further examined by calculating the coefficient alphas for each factor of the scale. The results are show in table 4.15. All seven sportscares dimensions were above the benchmark level of 0.70 (Malhotra & Peterson, 2006:274). These results are consistent with those reported by Wakefield *et al.*, (1996:26). Further, the item-total correlations are high for each item and exceeded the required value of 0.30 (Reamer & Kuehn, 2005:789). With the exception of a few items, values higher than 0.60 were obtained. Therefore, internal consistency and homogeneity of the scale are acceptable.

#### **4.8 VALIDITY ANALYSIS**

Various forms of validity were assessed using a variety of measures. Content, construct, convergent, discriminant and predictive validity were used to measure validity of the measuring instrument. These methods of validity are discussed in the following section.

##### **4.8.1 Content and construct validity**

Content validity occurs when a measurement scale provides adequate coverage of the subject being studied. Content validity was ascertained by pre-testing the questionnaire during which changes were made to the questionnaire regarding deletion of items, addition of items, rewording and rephrasing of questions. In assessing construct validity of the sportscares scale a pilot study was undertaken. At this stage the scale reliability was assessed (refer to section 4.7). The sportscares scale was found to be acceptable as the Cronbach alpha coefficient was above the acceptable benchmark level of 0.70.

#### **4.8.2 Convergent validity**

For the purpose of this study, Pearson's correlation coefficient was used to assess convergent validity for statistical significance and to measure the degree of linear association of two variables. Correlation ranges from -1.00 to +1.00. Table 4.16 highlights the correlation results between the servicescape factors: the desire to stay at stadiums and future attendance of spectators. Table 4.16 shows that all marked correlations are either significant at  $p < 0.01$  or  $p < 0.05$  indicating positive correlations ranging between  $r = 0.299$  and  $r = 0.612$ . Aspects such as the quality of scoreboards to enhance the atmospherics of a facility, variety and quality of refreshments available, space utilisation and accessibility to essential facilities without discomfort, and general cleanliness of the environment seem to be related to a spectator's desire stay within a stadium for the duration of a soccer game. The correlations between desire to stay and future attendance also reported strong positive linear relationships ( $r = 0.408$ ) at the 0.01 level of significance indicating the desire to stay and for future attendance at a facility.

**TABLE 4.15 Inter-item correlations and reliability**

Scale description	Item-total correlation	Cronbach alpha if item deleted	Factor name	Cronbach Alpha
Scoreboard is entertaining	.577	.921	Scoreboard quality	0.875
Scoreboards adds excitement	.442	.923		
Scoreboard - statistics	.335	.924		
High quality scoreboards	.617	.920		
Variety of food choices	.466	.923	Refreshment provisioning	0.844
Offers tasty food	.499	.922		
Like the food offered	.497	.922		
The food is freshly prepared	.635	.920		
Stadium is painted in attractive colours	.505	.922	Facility aesthetics	0.849
Architecture gives it an attractive character	.509	.922		
Stadium is decorated in an attractive fashion	.499	.922		
This stadium is attractive	.496	.922		
Restrooms- large to handle the crowds	.505	.922	Space allocation	0.791
Walkways wide enough to handle the crowds	.578	.921		
Enough space to handle the crowds	.535	.921		
Signs help me know where I am going	.496	.922		
Seat arrangements provide plenty of space	.505	.922	Stadium accessibility	0.850
Layout makes it easy to identify seating stands	.578	.921		
Layout makes it easy to get to your seat	.535	.921		
The stadium has safe parking	.496	.922		
This stadium is easy to enter before the game	.498	.922		
Plenty of knee room between seats	.471	.922	Seating comfort	0.765
Plenty of elbow room between seats	.442	.923		
Concession stands big enough to handle crowds	.548	.921		
Maintains clean restrooms	.533	.921	Stadium cleanliness	0.797
The stadium maintains clean seating areas	.575	.921		
The stadium maintains clean exits	.594	.920		
Overall Cronbach Alpha = 0.924				

In addition to assessing the convergent validity of the sportscapes scale using Pearson's correlation coefficients, convergent validity was also established through the reliability of the scale as measured by coefficient alpha which reflects the degree of cohesiveness among the scale items (Parasuraman, Zeithamal & Berry, 1991:420-450). Since the alpha values and item-total correlations are high (refer to table 4.16) in the current study, they can be regarded as reference for high convergent validity (Dhurup, 2010:211)

**TABLE 4.16 Correlations**

	Factor1 Scoreboard quality	Factor 2 Refreshment	Factor 3 Aesthetics	Factor 4 Space allocation	Factor 5 Stadium accessibility	Factor 6 Seating comforts	Factor 7 Stadium cleanliness	Desire to stay	Future Attendance
Factor 1 Score board quality	1.000	0.285**	.433**	.283**	.394**	.220**	.301**	.263**	.317**
Factor 2 Refreshment		1	.296**	.343**	.412**	.418**	.396**	.404**	.322*
Factor 3 Aesthetics			1	.437**	.490**	.389**	.378**	.404**	.445**
Factor 4 Space allocation				1	.520**	.784**	.609**	.404**	.373**
Factor 5 Stadium accessibility					1	.543**	.504**	.475**	.327**
Factor 6 Seating comfort						1	.909**	.612**	.370**
Factor 7 Stadium cleanliness							1	.550**	.299**
Desire to stay in the stadium								1	.408**
Attendance									1

#### **4.8.3 Discriminant validity**

Discriminant validity was measured by including a dimension in the study namely, perceived overcrowding. Table 4.17 depicts a negative correlation between the six of the seven factors and perceived overcrowding. Refreshment provisioning ( $p = -0.19$ ), facility aesthetics ( $p = -0.35$ ), space allocation ( $p = -0.55$ ), stadium accessibility ( $p = -0.80$ ), seating comfort ( $p = -0.76$ ) and

stadium cleanliness ( $p = -0.35$ ) correlate negatively with perceived overcrowding thus providing evidence of discriminant validity.

**TABLE 4.17 Correlations on sportscares dimensions and perceived overcrowding**

<b>Factor</b>	<b>Factor description</b>	<b>Perceived crowding</b>
F1	Scoreboard quality	.134
F2	Refreshment provisioning	-.019
F3	Facility aesthetics	-.035
F4	Space allocation	-.055
F5	Stadium accessibility	-.080
F6	Seating comfort	-.076
F7	Stadium cleanliness	-.035

In addition, for a more stringent test for discriminant validity it is recommended that the factor structure is stable (i.e. there is no cross-loading of items within factors). Scale items expected to load together should do so, while they should not load on more than one factor. The factor loading matrix reported in Table 4.5 indicates that there is no cross-loadings thus providing evidence of discriminant validity.

#### **4.8.4 Predictive validity**

Predictive validity was assessed using regression analysis. The seven servicescape factors were used with desire to stay and future attendance at stadia. Significant causal relationships were found between the seven servicescape dimensions and desire to stay and future attendance, thus providing evidence of predictive validity (refer to section 4.6).

## **4.9 SYNOPSIS**

This chapter reported on the empirical results of the study. This involves a detailed discussion of the pilot study. The results were found reliable as the Cronbach's alpha values achieved in section A to D was  $> 0.70$ .

A descriptive analysis for sections B, C, D and E was undertaken. Frequencies and percentages were used to describe the responses of respondents' desire to stay, perceived overcrowding and future attendance at stadia. Exploratory factor analysis was undertaken and to test the appropriateness of factor analysis for the study, Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy were used. The criteria for the number of factors to be extracted were based on eigenvalue, percentage of variance and the scree plot criteria. Reliability and validity assessment procedures were also undertaken.

Regression analysis was undertaken to show significant relationships between the stadium servicescape and desire to stay within the stadium and future attendance at this sports stadium. The next chapter addresses where and how the research objectives of the study were achieved. The recommendations, conclusions, limitations and implications of future research are also discussed in the next chapter.

## **CHAPTER 5**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 INTRODUCTION**

Chapter 4 reported on the results and analysis of the empirical findings. The pilot study and main study results were reported and analysed. Exploratory factor analysis procedure and method of extraction were also discussed. The reliability, validity and regression analyses were undertaken. This chapter focuses on the evaluation of the major findings of the research in order to draw conclusions. Recommendations, implications for the future and limitations of the study are provided.

## **5.2 GENERAL REVIEW**

The main purpose of this study was to determine the role of servicescapes in spectators' attendance at selected sport stadia in Gauteng. In order to achieve this objective, factors of atmospherics and servicescapes were thoroughly discussed. The roles and components of servicescapes in service encounter and approach-avoidance behaviours from the perspective of environmental psychology were also explained to determine the impact of servicescape on spectator attendance at sports stadia.

Based on the results of this study, a number of conclusions were drawn. The following section highlights how theoretical and empirical objectives were achieved in the study.

### **5.2.1 Theoretical objectives**

Theoretical objectives in this study were achieved through analysis of relevant literature. These objectives were formulated at the beginning of the study (refer to section 1.3.2).

Theoretical objectives:

- Conduct a literature review on atmospherics and servicescapes.
- Conduct a literature review on the roles and components of servicescapes in service encounters.
- Conduct a literature review on stadia servicescapes.
- Conduct a literature review on servicescapes and future attendance at sports stadia.



With reference to **Theoretical objective 1**, data was obtained from different sources such as journal articles, books and other literature sources. The objective was achieved commencing with section 2.2 of this study (refer to pages 13-16 of chapter 2).

**Theoretical objective 2**, roles and components of servicescape were reviewed thoroughly under sections 2.3 and 2.4 of this study (refer to pages 16-35 of chapter 2).

**Theoretical objective 3** stadium servicescape and sportscapes was reviewed in sections 2.5 and 2.6 (pages 35-48 of chapter 2).

With reference to **Theoretical objective number 4**, servicescape and future attendance at sport stadia had been reviewed in section 2.7 labelled *servicescapes and loyalty intentions* (refer to pages 49-50 of chapter 2).

### **5.2.2 Empirical objectives**

The following empirical objectives were formulated at the beginning of the study (refer to Section 1.3.3)

- Identify the various elements of servicescapes in sports stadia.
- To determine the relationship between servicescapes dimensions and the desire to stay at a sports stadium.
- To examine the relationship between servicescapes dimensions and future attendance at a particular sports stadium.
- To examine the relationship between the servicescapes dimensions with the desire to stay and future attendance at a sports stadium.

### **5.2.3 Conclusions**

With reference to **empirical objective 1**, conclusions were drawn based on the findings in section 4.4.9 of this study. The results showed that there are seven components of servicescapes in the sports stadia that affect spectator attendance. Based on the factor analysis that was

conducted, scoreboard (factor 1), refreshment provision (factor 2), aesthetics (factor 3), space allocation (factor 4), stadium accessibility (factor 5), seating comfort (factor 6) and stadium cleanliness (factor 7) were the extracted components of servicescapes in sports stadia.

- **Scoreboard quality** was considered the second most influential component of the servicescape with the mean = 3.70. Scoreboards add excitement to the game and entertain spectators during the interval in the game. Wakefield and Baker (1998:519) suggest that the stadium experience should be exciting to attract and keep spectators. The scoreboard may be used for information dissemination as well as entertainment.
- **Refreshment provisioning** was found to be another influential component of servicescapes. This component scored lowest in the study with the mean = 3.14. Good quality and variety of refreshments before, during and after the game can provide a memorable service encounter.
- **Facility aesthetics** was found to be the most important component of servicescapes. This component scored highly in the study with mean = 3.90. Consistent with literature, stadium aesthetics refer to the attractiveness of the stadium's exterior and interior design (Chao, 2008:102). Facility aesthetics affect spectators' attitude toward the service environment or physical surroundings.
- **Space allocation** was also considered an important component of servicescapes. The mean rating of this component was 3.52. Hence, an effective space allocation with enough restrooms to accommodate large crowds, broad walkways and enough and proper signage allowing spectators to reach their desired destinations and reduce discomfort was considered important.
- **Stadium accessibility** is an important factor as it pertains to access highways, public transportation and parking facilities. Stadium accessibility is one of the important components of servicescapes with the mean = 3.58. If it becomes easy to enter and exit the stadium spectators become satisfied and decide to stay longer at the stadium and to attend in future.

- **Seating comfort** refers to the comfort and the spacing of seats relative to each other. Spectators who feel comfortable with the space between seats spend more time at the stadium and excitedly attend future games. Stadium seating in this study scored a mean = 3.39.
- **Stadium cleanliness** refers to general cleanliness of the stadium surroundings, including seating areas and the restrooms. Cleanliness can affect the emotional well-being of spectators. Hence, stadium cleanliness may create positive emotions that lead to approach behaviour (desire to stay longer and future attendance at the stadium). The component scored a mean = 3.49.

**Empirical objective 2**, was achieved under section 4.6 (refer to table 4.14) where the results showed that three components of servicescapes namely refreshments, space allocation and cleanliness significantly and directly related to the desire to stay within the stadium, with the Beta coefficients: refreshments ( $\beta = 0.139$ ), space allocation ( $\beta = 0.380$ ) and cleanliness ( $\beta = 0.163$ ).

**Empirical objective 3**, was achieved under section 4.6 (refer to table 4.14) where the results showed that four components of servicescapes namely scoreboard quality, refreshments, seating comforts and stadium aesthetics significantly and directly related to future stadium attendance. Future stadium attendance was positively predicted by scoreboard quality ( $\beta = 0.167$ ), refreshment provision ( $\beta = 0.131$ ), stadium aesthetics ( $\beta = 0.291$ ) and seating comforts ( $\beta = 0.560$ ). Seating comfort and aesthetics plays a major role in future stadium attendance.

With reference to **empirical objective 4**, conclusions were made in Section 4.8.2 (refer to table 4.16) that correlation between desire to stay within the stadium and future stadium attendance have strong positive linear relationships ( $r = 0.408$ ) at the 0.01 level of significance showing that desire to stay within a stadium influences spectators' future attendance at a facility.

### 5.3 RECOMMENDATIONS

A number of recommendations for stadium management are suggested. These recommendations may assist stadium management to bring together all the components of their servicescape to attract more spectators to attend soccer matches. The sports stadium is a focal point of spectators' pride and provides a local and international image. The stadium building itself should be a memorable landmark. Hence, stadium designers should create a unique venue to reflect the image of the stadium.

### **5.3.1 Scoreboard quality**

The quality of the scoreboard and sound systems limits or affords opportunities to entertain and inform spectators. Hence, it is recommended that stadium designers make provision for huge video screens for updates on scoring, replays, player statistics and other forms of entertainment which adds excitement for spectators. The scoreboard should be electronically controlled and provide accurate and clear information to spectators.

### **5.3.2 Refreshments**

It is recommended that stadium managers ensure all spectators are catered for in terms of appropriate **food, snacks and beverages** (hot or cold). Choice is therefore essential that a variety of food, snacks and beverages are available to enhance sport encounter experience. There should be adequate food outlets in the stadium for convenience of spectators so that queuing is reduced. There must be clear signposts for all refreshments outlets. Areas around the refreshment outlets should be kept clean and tidy for spectators' health and safety. Disabled spectators should be taken into considerations, whereby facilities can be made to be accessible by wheelchairs.

### **5.3.3. Facility aesthetics**

Facility aesthetics is an important component of servicescape. The first impression that spectators get of a place is from its appearance and its architectural design. Stadium exterior and interior should be attractive. It is recommended that stadium management keep the interior and exterior appearance and décor of the stadium attractive to spectators to enhance the desire to stay

within the stadium. The architectural design, colour of the stadium walls (interior and exterior) should be attractive to arouse interest and to develop positive attitudes towards attendance at the event. The architectural design can assist to create an atmosphere that promotes a shared experience of the game. The design should maximise the capacity to view a soccer match when seated anywhere in the arena of the facility.

#### **5.3.4 Accessibility**

The design of the stadium should make it easier for spectators to enter and exit a stadium surrounding. The layout of the stadium should also give access to spectators to easily reach service areas such as food stands, concessions, restrooms and souvenir stands. **Stadium accessibility** includes issues like such as availability of parking, the ease of entering and exiting the parking areas and the location of the parking within the stadium. Spectators dissatisfied with parking conditions are relatively likely to leave a game early (Wakefield & Sloan, 1995:156). The time consumed looking for parking or walking to the stadium may add frustration to spectators. Hence, stadium management is advised to comply with the transportation strategy and ensure safe and enough parking for spectators, officials, service vehicles and for the disabled. Stadium parking should not force spectators to wait for a long time to exit the stadium. Spectators will complain if there are parking problems, but they rarely complain to management. They complain to other spectators and may decide not to come back to the facility. Management of stadiums can employ more personnel to direct spectators to parking areas when entering and leaving the stadium, especially when matches are played between teams that have a large fan base. They can add routes that give spectators more entrance and exit choices and arrange traffic light management with the local police. Sometimes the problem is not the parking lot but it could be problems down the road where traffic lights stall the free movement of traffic. The provision of a free shuttle service from a distant parking lot to the stadium could also be an option to ease traffic congestion. Management should use effective signs, symbols and artefacts in parking lots to assist spectators find their way. There must be friendly warnings at parking lots, e.g. “fire lane” where spectators are requested not to park. Seating sections should be clearly marked with signs visible from a distance. However, having personnel available to answer questions and to

direct spectators as they exist is also an important responsibility of attendants and security personnel.

### **5.3.5 Seating**

Spectators desire to stay at a stadium when they feel comfortable. All spectators should have a clear unrestricted view of the playing area. The design of the stadia should consider latest **seating** innovations e.g. club seats (padded seats) to allow spectators view a game from luxury boxes. There must be enough space between seats because spectators may feel uncomfortable and cramped if they feel others to be too close to them. Seats should be adequately labelled with strong and resistant materials. Stadium seating should provide wheelchair positions within various seating areas to allow spectators with impaired mobility to sit alongside abled friends, family and carers. Premium seating and corporate facilities including private suites, corporate lounges and dining facilities should be included in stadia.

### **5.3.6 Stadium cleanliness**

Stadium surroundings should always be clean as cleanliness has an impact on spectators' desire to stay at the stadium (Wakefield & Sloan, 1995:157). The assistance of spectators can be enlisted by informing fans of the need to keep the stadium clean via signs, announcements and by an ample supply of garbage disposal units. Stadium management should ensure cleanliness throughout the event. Restrooms and concessions should be regularly cleaned during the event to avoid overflowing with garbage and spilled drinks. If restrooms are covered with garbage, refuse and dampness spectators become discouraged from using the facilities and decide to leave early.

### **5.3.7 Security**

Security is an important factor in the management of any stadium as spectators have a right to safety. Hence, stadium management should guarantee safety of spectators during the event. The stadium must have safety and clearly marked first aid rooms for any emergencies that may occur. Control rooms should cater for police and stewarding operations to monitor the entire event.

Security that is well trained is needed for safety of spectators, crowd control and the comfort of spectators. The development of an emergency plan to meet legal statutes and professional standards and expectations is recommended for providing a safe and non-threatening environment. Ticket distribution should be carefully monitored to avoid overcrowding.

#### **5.4 LIMITATIONS OF THE STUDY**

The sample was drawn from spectators who attend PSL matches in two venues only (Soccer City and Orlando stadium). The sample consisted only of 170 spectators due to time and cost constraints. This limits the ability to generalise the findings to other stadia and the results must be treated with caution when drawing conclusions. The findings of this study may not be applicable to stadia in other provinces. The study had a limited and specific geographical setting. However, the methodology described and employed in this study, it is suggested, provided sufficient insight into probable spectator responses and likely attitudes. Whilst only two stadia (one recently refurbished and one relatively old) were chosen for the sample, this study did not undertake comparisons of such structures as the purpose of the study was first to validate a sportscape's scale.

#### **5.5 IMPLICATIONS FOR FUTURE RESEARCH**

Despite its limitations, the findings from the study point toward several useful directions for future study. Different sportscares and image attributes need to be brought into the equation mainly driven by changing spectator preferences and needs. Additional variables added to the study equation such as team loyalty and fan motivation may enhance our understanding of spectators' reasons for attendance at stadia. Personal space and interpersonal distance norms may be subject to cultural variations and therefore the relationship between perceived overcrowding and space may yield rewarding outcomes if researched across different cultures in South Africa.

The importance of a particular sportscape component is likely to vary across different leisure settings.

The study was restricted to one code of sport, i.e. soccer; therefore future studies could be extended to other major codes of sport in South Africa, such as rugby and cricket. Since the results only refer to sportscares, specific to two stadia, further research is warranted in order to validate the sportscares dimensions over a larger sample size involving more stadium venues, especially those newly built. A wider study examining spectator perceptions of various aspects of the sportscares including comparisons of old and new stadia and the relationship to spectator attendance, desire to stay within a sportscape, perceived crowding and future behavioural intentions, is warranted

A combination of quantitative and qualitative research methods is recommended for future research in order to obtain in-depth information on stadia servicescares. Future studies should also be extended to examine gender differences.

## **5.6 CONCLUDING REMARKS**

Servicescares refers to the extent to which the surroundings and the physical environment contribute to the enjoyment of a sporting event. Some individuals may attend a game because of the pleasant design and environment of a stadium. Fans that enjoy spending time at a stadium are more likely to return to the stadium because of the presence of the various servicescare factors. On the other hand fans that may have had a bad experience because of the absence of certain essential component of the particular servicescare are less likely to want to return to a stadium and feel that they have little control over the service encounter. Managing the servicescares is important because spectators spend hours in the environment. Hence, management of stadia should be aware of the focal points that affect spectators' perception of the servicescares.

The primary purpose of the study was to establish the salient sportscares components within the context of professional soccer matches. The servicescares dimensions identified through factor analysis influence the pleasure or displeasure of spectators and their willingness to stay in the facility, spend money while in the facility and return to the facility in the future. Overall, the



results provide interesting insights into sportscares within which spectators interact when attending professional soccer games. Stadium developers and managers should give careful consideration to sportscares's factors when stadia are developed or refurbished.

A complex mix of environmental features constitutes the sportscares in stadia which may influence the behaviours of spectators. Environmental psychologists contend that individuals respond to their environments holistically by creating perceptions of the environment which ultimately determine their response to those environments. The study represents a theory-driven framework for modelling the role of sportscares in stadium consumption setting which was built upon insights drawn from literature, including environmental psychology, consumer behaviour and sports servicescares. It reinforces previous streams of research which demonstrates the value of salient sportscares dimensions, the desire to stay within sportscares and re-patronage intentions.

The identified dimensions provide some contribution to the improved assessment of the meaning of sportscares within a South African context and of the value of sportscares in a sport and leisure setting.

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## ANNEXURE A

### Questionnaire

#### THE ROLE OF SERVICESCAPES ON SPECTATORS' ATTENDANCE AT SELECTED SOCCER STADIUMS

This study seeks information on various servicescape elements that may influence spectators' attendance at stadiums where professional soccer league games are played. Below are a number of statements on servicescapes that may describe spectators' propensity to attend soccer stadiums. Please indicate the extent to which you agree or disagree with these statements by encircling the corresponding number. (1= strongly disagree, 3 =moderately agree; 5= strongly agree).

**CIRCLE ONLY ONE NUMBER FOR EACH STATEMENT**

#### SECTION A - SERVICESCAPES ELEMENTS

AP1	Local roads make it easy to get to this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
AP2	This stadium has ample parking	Strongly disagree	1	2	3	4	5	Strongly agree
AP3	This stadium is easy to exit after the game	Strongly disagree	1	2	3	4	5	Strongly agree
AP4	This stadium's parking is conveniently located	Strongly disagree	1	2	3	4	5	Strongly agree
AA5	This stadium is painted in attractive colours	Strongly disagree	1	2	3	4	5	Strongly agree
AA6	This stadium's architecture gives it an attractive character	Strongly disagree	1	2	3	4	5	Strongly agree
AA7	This stadium is decorated in an attractive fashion	Strongly disagree	1	2	3	4	5	Strongly agree

AA8	This stadium is attractive	Strongly disagree	1	2	3	4	5	Strongly agree
ASB9	This stadium's scoreboard is entertaining to watch	Strongly disagree	1	2	3	4	5	Strongly agree
ASB10	This stadium's scoreboards adds excitement to the game	Strongly disagree	1	2	3	4	5	Strongly agree
ASB11	This stadium provides interesting statistics	Strongly disagree	1	2	3	4	5	Strongly agree
ASB12	This stadium has high quality scoreboards	Strongly disagree	1	2	3	4	5	Strongly agree
AC13	This is plenty of knee room in the seats	Strongly disagree	1	2	3	4	5	Strongly agree
AC14	There is plenty of elbow room in the seats in this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
AC15	Seat arrangements provide plenty of space in this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
AC16	This stadium provides comfortable seats	Strongly disagree	1	2	3	4	5	Strongly agree
AL17	This stadium's layout makes it easy to get to the seating stands	Strongly disagree	1	2	3	4	5	Strongly agree
AL18	This stadium's layout makes it easy to get to your seat	Strongly disagree	1	2	3	4	5	Strongly agree
AL19	This stadium's layout makes it easy to get to the restrooms	Strongly disagree	1	2	3	4	5	Strongly agree
AL20	Overall, this stadium's layout makes it easy to get where you want to go	Strongly disagree	1	2	3	4	5	Strongly agree
AS21	The concession stands are big enough to handle the crowds in this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
AS22	The restrooms are large enough to handle the crowds	Strongly disagree	1	2	3	4	5	Strongly agree
AS23	The walkways are wide enough to handle the crowds	Strongly disagree	1	2	3	4	5	Strongly agree

AS24	This stadium allows enough space to handle the crowds	Strongly disagree	1	2	3	4	5	Strongly agree
ASI25	Signs at the stadium help me know where I am going	Strongly disagree	1	2	3	4	5	Strongly agree
ASI26	Signs at the stadium give clear directions of where things are located	Strongly disagree	1	2	3	4	5	Strongly agree
ACL27	The stadium maintains clean restrooms	Strongly disagree	1	2	3	4	5	Strongly agree
ACL28	The stadium maintains clean seating areas	Strongly disagree	1	2	3	4	5	Strongly agree
ACL29	The stadium maintains clean walkways	Strongly disagree	1	2	3	4	5	Strongly agree
CL30	The stadium maintains clean exits	Strongly disagree	1	2	3	4	5	Strongly agree
AP31	The stadium has safe parking	Strongly disagree	1	2	3	4	5	Strongly agree
AF32	The stadium offers a variety of food choices	Strongly disagree	1	2	3	4	5	Strongly agree
AF33	The stadium offers good tasting food	Strongly disagree	1	2	3	4	5	Strongly agree
AF34	I like the food offered at this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
AF35	The food at this stadium is freshly prepared	Strongly disagree	1	2	3	4	5	Strongly agree
AM36	The stadium plays recorded/playback music that I like	Strongly disagree	1	2	3	4	5	Strongly agree
AM37	This stadium's music is played at an appropriate volume	Strongly disagree	1	2	3	4	5	Strongly agree
AM38	This stadium's lighting is appropriate	Strongly disagree	1	2	3	4	5	Strongly agree
AM39	I like the musical live entertainment at this stadium	Strongly disagree	1	2	3	4	5	Strongly agree

AP40	This stadium is easy to enter before the game	Strongly disagree	1	2	3	4	5	Strongly agree
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#### SECTION B - DESIRE TO STAY

B1	I enjoy spending time at this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
B2	I like to stay at this stadium as long as possible	Strongly disagree	1	2	3	4	5	Strongly agree
B3	I stay at this stadium until the end of the game	Strongly disagree	1	2	3	4	5	Strongly agree
B4	I stay at this stadium longer than I have to	Strongly disagree	1	2	3	4	5	Strongly agree

#### SECTION C - PERCEIVED CROWDING

C1	I feel constrained when I attend soccer matches at this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
C2	I feel stuffy when I attend soccer matches at this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
C3	This stadium feels crowded when I attend soccer matches	Strongly disagree	1	2	3	4	5	Strongly agree
C4	I feel cramped when I attend soccer matches at this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
C5	I feel restricted when I attend soccer matches at this stadium	Strongly disagree	1	2	3	4	5	Strongly agree

#### SECTION D - FUTURE ATTENDANCE

D1	I will continue to patronise this stadium in the future	Strongly disagree	1	2	3	4	5	Strongly agree
D2	I am committed to maintaining my patronage at this stadium	Strongly disagree	1	2	3	4	5	Strongly agree

D3	I plan to maintain my future soccer match attendance at this stadium	Strongly disagree	1	2	3	4	5	Strongly agree
D4	I would recommend this stadium to a friend	Strongly disagree	1	2	3	4	5	Strongly agree

### SECTION E

In this section we would like to find out a little more about the characteristics of spectators that attend professional soccer league games at this stadium. Please place a cross (x) in the appropriate block.

E1	Your gender	Male	Female
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E2	Age category	18 -25 years	26 -33 years	34-41 years	42-48 years	Over 48 years
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E3	Marital status	Single	Married
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E4	Who accompanied you to the stadium?	Family	Friend	Alone	Boy-/ girlfriend	Someone else
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E5	Frequency of attendance in the last three months to this stadium	2 times or less	3-4 times	More than 4 times
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E6	Highest qualification	Matric	Diploma	Degree	Other Specify
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E7	Ethnic group	African	Coloured	Indian	White	Other
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E8	Stadium that you referred to	Johannesburg stadium	Orlando stadium (Soweto).
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**Thank you for time and your cooperation.**

**Your views are much appreciated.**



## ANNEXURE B: SOCCER CITY STADIUM (FNB)



## ANNEXURE C: ORLANDO STADIUM





# ASOKA ENGLISH LANGUAGE EDITING

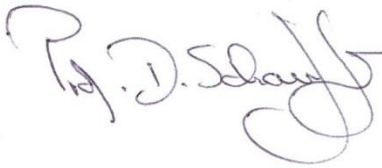


## DECLARATION

This is to certify that I have English Language edited the dissertation:

*The role of servicescapes in spectators' attendance at selected soccer stadia.*

Candidate: Mofoka MA



*Prof. D. Schauffer*

**SATI member number: 1001872**

**DISCLAIMER**

Whilst the English language editor has used electronic track changes to facilitate corrections and has inserted comments and queries in a right-hand column, the responsibility for effecting changes in the final, submitted document, remains the responsibility of the candidate in consultation with the supervisor/promoter.