



**UNIVERSITY of the
WESTERN CAPE**

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Faculty of Community and Health Sciences

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Practices to develop Guidelines for Historically
Disadvantaged Institutions.**

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ABSTRACT

High-performance sport is characterised by the effective amalgamation and synergy of elements, including financial and managerial support, coaching, sport sciences and sports medicine support, talent identification and athlete pathways, training facilities and equipment, and competitions.

Universities have increasingly become hubs for high-performance sports services, used by students and non-students alike. According to Dr Ralph Richards, a senior research consultant for Sport Australia, most university students are in their late teens to early 20s, which is also a critical demographic for elite sports performance. Universities can and do have a substantial impact on the sports sector, particularly in supporting and developing elite student-athletes through quality facilities and infrastructure, supportive programming, competitive opportunities, and sports bursaries or scholarships. In recent years, the high-performance sport has firmly established itself as a modern industry at some top-performing South African Universities. Since the Varsity Cup and Varsity Sport's inception, South African Institutions have invested more in developing the sport to win competitions. However, many institutions, especially Historically Disadvantaged Institutions, do not establish athletic performance pathways. The study aimed to create guidelines for the best high-performance sport management practices and analysed successful international and local systems. The Spliss Model (a theoretical model of 9 pillars of sport policy factors influencing international success) provided the theoretical framework for this study. This study used a purely qualitative approach informed by an extensive literature review. This was followed by face-to-face semi-structured interviews with the high-performance sports directors and directors of sport at Universities and sports organisations in South Africa who currently have high-

performance sports units. The data were transcribed verbatim and analysed through the lens of the SPLSS model. A thematic analysis was conducted to identify the best practices for high-performance sport at Historically Disadvantaged Institutions. The key findings showed that the best practices for high-performance sports systems included proper governance, appropriate funding, training facilities, quality coaching, sport science support services, academic support services and opportunities to compete. Ethics considerations were observed where the anonymity of the participants was upheld by way of using pseudonyms after permission from them were obtained. Permission to conduct the study was obtained from the University of the Western Cape Humanities and Social Sciences Research Ethics Committee.

Declaration

I hereby declare that *Analysing Best High-Performance Sports Management Practices to Develop Guidelines for Historically Disadvantaged Institutions* are my own work, that it has not been submitted before for any other degree in any other university, and that the sources I have used have been indicated and acknowledged as complete references.

Elmien Doreen Cloete

December 2021

Signed _____

A rectangular box containing a handwritten signature in cursive script, which appears to read 'Elmien Cloete'.

Acknowledgement

"I can do all things through Christ who strengthens me" Phillipians 4:13

Firstly, I would like to acknowledge my heavenly Father for the strength He gave me to complete this research project. This journey has been long and filled with many hurdles, but God's amazing grace throughout covered me. Along the way, several wonderful people that I can call my friends, colleagues, mentors, and family have supported me emotionally, spiritually, and financially. First, I want to thank my family for putting them through these past few years of undue hardship while I pursue this dream and personal achievement. Second, I dedicate this Thesis to my inspiration, my only daughter Madison, who received less of my attention towards the end. Words cannot express my admiration and appreciation for your love and support. You are extremely special to me, and I thank God for blessing me with you.

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LIST OF ABBREVIATIONS

EAFU	Elite Athlete Friendly University program
FISU	The Federation of International University Sport
GDR	German Democratic Republic
HDI's	Historically Disadvantaged Institutions
HEI	Higher Education Institution
HPS	High-Performance Sport
HPC	High-Performance Centre
HWI's	Historically White Institutions
NCAA	National Collegiate Athletic Association
NF	National Federation
NWU	North-West University
SASCOC	South African Sports Confederation and Olympic Committee
SPLISS	Sport Policy factors Leading to International Sporting Success
SRSA	Sports and Recreation South Africa
UP	University of Pretoria
US	University of Stellenbosch
USSA	University Sport South Africa
UWC	University of the Western Cape
VUT	Vaal University of Technology

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Appendix A: Information Sheet

Appendix B: Consent Form

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CHAPTER 1

INTRODUCTION

1.1 Introduction

In recent years high-performance sport (HPS) has firmly established itself as a modern industry. It is defined as "sport engaged in by elite athletes who achieve, or who aspire to achieve, or who have been identified as having the potential to achieve excellence in a world-class competition" (Bloom et al., 2006, p.1). Houlihan (2013) stated that the evolution of managing high-performance sport dates back to the 1950s and the onset of the Cold War. Therefore, high-performance sport is no new concept, but nations are becoming strategic in producing elite athletes. Rapid recognition and overwhelming evidence suggest that the "new" point of difference and competitive advantage for countries is effective management and governance (Sotiriadou, 2009). Therefore, the emphasis is on the staff involved with the HPS athletes and their effective planning processes.

Until the 1970s, the elite sport system operated in a rudimentary fashion where talented or elite athletes would train with a coach under the supervision or direction of the sports federations (Houlihan & Zheng, 2013). Since the mid-1980s, HPS evolved from this "athlete-coach-federation" relationship to a complex team of support staff (i.e. physiotherapists, doctors, soft tissue therapists, strength and conditioning coaches, psychologists, physiologists, biomechanists, performance analysts and career lifestyle coaches) (Collins et al., 2013). However, the number of stakeholders is increasingly expanding to, apart from the sports science support; to administrators, academics, researchers, sponsors, media, and media; generally under the guidance of HPS Directors or, in many instances, a CEO.

International sporting success has frequently been regarded as a valuable resource given its capacity to help governments achieve a wide range of non-sporting objectives (Green & Houlihan, 2005). Such goals could differ, but for a country like South Africa, it could mean reaching objectives around social issues such as fighting against crime, job creation, education, health, and sports transformation. However, the most significant example of how mighty sport can be in helping a government achieve non-sporting objectives is international sport tournaments such as the 1995 Rugby World Cup and the 2019 Rugby World Cup when South Africa won this prestigious event. Given the history of South Africa's Apartheid Laws, sport, in this case, served as a perfect example of how the South African government achieved a crucial political objective. It can, however, be argued whether the aim of unifying a nation is lasting, but the whole country (all races) came together to celebrate the victory. Results such as these probably encourage governments to become more willing to invest directly in elite sports development. Two significant trends in HPS have been prevalent in recent years. First, the number of countries seeking success in major world sporting events is increasing and secondly, an increasing number of countries have developed the ability to win medals. (Shibli, et al., 2007; Shibli et al., 2013).

Despite this increase in competitiveness, there are still many losers and only a few winners in an international HPS context. Researchers and managers are interested in analysing the existing sports policies of different sporting organisations or countries to explain why some countries achieve success, and others do not. High-performance sport is characterised by the effective amalgamation and synergy of elements, including financial and managerial support, coaching, sport sciences, sports medicine support, talent identification and athlete pathways, training facilities and equipment, and competitions. However, many countries, especially developing countries and, for this study, Higher Education Institutions (HEI's) such as the

University of the Western Cape (UWC), do not have coordinated HPS systems in place. This could result in underachieving at national and international competitions.

As a Sports Administrator at the University of the Western Cape, the researcher works with high-performance athletes who compete at high levels of competition at both national and international levels and has first-hand knowledge of the sports system. The University of the Western Cape competes in the very same competitions as the "more resourceful" institutions such as the University of Stellenbosch (US), University of Pretoria (UP), and North-West University (NWU). The universities above have structured HPS programs, whereas UWC currently has no formal program or policy for HPS, yet UWC produces student-athletes of the highest quality.

Universities have as core responsibility higher or tertiary education and research opportunities. Most university students are in their late teens to early twenties, a critical demographic for high-performance sport. The landscape of sport within South African Universities is shifting rapidly to emphasise HPS and its management models and related prioritisation of performance outcomes. Since Varsity Cup and Varsity Sport (categorised as high-performance sports competitions) has entered the arena at South African higher learning institutions, the bar has been raised tremendously. Varsity Sports is a high-performance competition that enables South African universities to compete against one another in several different sporting codes. For the first time in university sports history, there are a few benefits and rewards for participating institutions, most probably financial rewards and media exposure. Although historically disadvantaged institutions (HDI's) have made significant strides in sports development, the disparity between historically white institutions (HWI's) and HDI's is still huge.

Universities can substantially impact the sports sector, particularly supporting and developing elite student-athletes through quality facilities and infrastructure, supportive programming, competitive opportunities, and sports bursaries or scholarships (Aquilina & Henry, 2010). However, HDI's like UWC, Cape Peninsula University of Technology (CPUT) and Vaal University of Technology (VUT) that compete in the Varsity Cup and Varsity Sports competitions do not have structured high-performance units. The researcher believes that the absence of a structured high-performance sports program, coupled with a lack of physical and financial resources, could be a reason for lower rankings at the competitions.

The mandate to develop the sport at an elite level lies predominantly within a partnership between government, national and international federations (Chalip et al., 1996). However, the ever-changing landscape of sports has resulted in a sport delivery system characterised by multiple stakeholders with interdependent and overlapping roles (Burnett, 2010). Among these stakeholders are universities, traditionally centres of excellence providing leadership and expertise in the various spheres of human endeavours, including sports (Joseph, 2012). In addition, according to Aquilina and Henry (2010), the availability of sports facilities, sport science specialists, and medical facilities in one organisation makes universities unique places to nurture talent. It is widely recognised that university involvement in the development of elite athletes has contributed to the success of individual athletes and teams at major sports competitions. For example, between 1992 and 2008, 61% of Great Britain (GB) Olympic team medalists had been students or alumni, while 59% of Team GB for the London 2012 Olympic and Paralympic Games have been or were student-athletes at Universities (Girginov, 2018). In South Africa, several public universities have and continue to play a significant role in the training and preparation of numerous participants for major sports events. These public universities are classified as

historically disadvantaged institutions (HDI's).

Very few academic studies have been published on HPS policies at universities or higher learning institutions. However, assuming that HPS at universities closely parallels that of high-performance sports systems of countries, it is logical to use the Sport Policy factors Leading to International Sporting Success (SPLISS) model as a reference point. "People are not born as athletes; they need to invest a great time, energy, resources and passion to their sport, surrounded by people who provide and arrange the support services" (De Bosscher et al., 2015, p.37). This explanation resulted from previous studies that developed a conceptual framework, SPLISS. According to the SPLISS framework (De Bosscher et al., 2006), which formed the conceptual lens for this thesis, nine pillars or factors cover the input-throughput-output of a national sports policy. Furthermore, Governments can contribute directly to the development of elite sports.

The SPLISS framework has been used by many researchers since 2006 (De Bosscher et al., 2008; De Bosscher et al., 2009; De Bosscher et al., 2010; De Bosscher et al., 2011; Dixon et al., 2017; e.g., Brouwers et al., 2015a; e.g., Brouwers et al., 2015a) as a guide to assess the effectiveness of a country's HPS system.

While the framework has led to many countries creating more effective and efficient sports development systems and has become a "hot topic" in research, findings associated with the framework are still ongoing. In an era of financial restraint and increased transparency and accountability, understanding the factors leading to a country's "sporting success" and the factors' interrelationships becomes all the more critical. This is even more so in developing countries, where resources and capacities are argued to be even smaller. So, although the framework has generally been developed as a result of studies done on developed countries, it can also be used to

analyse organisations' HPS systems. Specifically for universities globally to create guidelines for HDI's, with scarce resources and funding available.

SPLISS studies mainly were done on industrialised developed countries, and therefore the principles of the framework require application within other types of HPS environments, such as higher learning institutions. In the global sporting arms race, all nations and or sporting organisations are now competing in one overall sport development system, whereby developing nations or, for this study, HDI's need to learn from historically white institutions. In particular, UWC's success at national sports competitions over the last few years arguably requires creating an HPS system to support and enhance the performances of its talented athletes. The critical ingredients for a successful HPS system (e.g. funding, quality resources, and facilities) may be a considerable challenge for HDI's. Therefore, it is predicted that the guidelines for this thesis might need to be adapted substantially.

1.2 A brief history of Historically Disadvantaged Universities

The striking feature of higher education in South Africa is that its provision evolved and reproduced itself along racial and ethnic lines, prompted in considerable measure by deliberate state policy. Therefore, it is imperative to acknowledge that universities' emergence, roles, and cultures in contemporary South Africa relate pretty directly to the history of white political, economic, and cultural domination. Consequently, higher education reflects the history of unequal relations of power perpetuated during colonial and Apartheid rule (Badat, 1999; Wolpe, 1991). As Dr Verwoerd, also known as the architect of Apartheid himself, stated: "When I have control over Native Education, I will reform it so that the Natives will be taught from childhood to realise that equality with Europeans is not for them. People who believe in equality are not desirable teachers for Natives. When my Department controls Native Education, it will know for

what class of higher education a Native is fitted and whether he will have a chance in life to use his knowledge. Education must train and teach people in accordance with their opportunities in life, according to the sphere in which they live." (Hirson, 1979, p. 45).

Instead of denying university education to blacks by relying on the admissions policies of the established white universities, the Apartheid state embarked on a determined approach to creating universities for the various state-defined ethnically classified black groups. For Zulu and Swazi speakers, the government created the University of Zululand. The University of the North (Turfloop) was designed for Sotho, Tswana, Venda and Tsonga speakers. Finally, the University of the Western Cape and Durban-Westville was created for those classified as Coloureds and Indians by the State (Horell, 1968). This policy directly impacted sports development at these institutions and is now evident in the teams representing their institutions at National University competitions such as University Sport South Africa (USSA) and Varsity Sport and Varsity Cup competitions.

1.3 Problem Statement

A vital question for many sports organisations and governments worldwide is how to provide sports participants with a gradual path to excellence. Higher learning institutions have a wealth of talented athletes competing in competitions ranging from community level to national and even international level. Tertiary institutions can and do have a substantial impact on the sports sector, particularly in supporting and developing elite student-athletes through quality facilities and infrastructure, supportive academic programming, scholarships or sports bursaries, and competition at national and international levels. However, Bohlke (2006) believes that

the absence of an organised sport management system to assist the athletes on this path to excellence can often be disjointed and disadvantageous participants.

The legacy of Apartheid state planning is the racial and ethnically fragmented higher education sector in South Africa (Badat, 1999; Badat, 2002). This is evident from the lack of quality sports facilities and the absence of organised high-performance management systems at most HDI's in South Africa. The higher education terrain displays marked differences in status, everyday material conditions, and capacities between those universities the education discourses of the new South Africa have come to label "historically advantaged" and those "historically disadvantaged" universities (Reddy, 2004). Moreover, through state policies, unequal funding, racially skewed student and staff composition, institutional histories, support from business, regional and local cultures in the surrounding environments of universities and the varying impacts of the evolving social relations of power in the broader society,

1.4 Significance of the Study

Tertiary Institutions have a wealth of talented athletes competing in competitions ranging from community level to national and even international level. The study aims to analyse high-performance management or elite sports systems of different organisations locally and abroad, especially within the Higher Education sector, to establish the best practice. The findings will create guidelines for HDI's, who would also like to seek success in competitions such as the annual University Sport South Africa (USSA) and Varsity Cup and Varsity Sports competitions in South Africa. The researcher hopes that such guidelines can be implemented at the university where she is employed and at any HDI's looking for a coordinated system to manage high-performance athletes.

1.5 Research Questions

1. What are the current best practices of successful High-performance Sport systems globally?
2. What are the current High-Performance Sport best practices at Institutions in South Africa?
3. What are the key factors to consider when creating high-performance sport guidelines for historically disadvantaged institutions?

1.6 Research Aims and Objectives

The study aimed to analyse high-performance sport management practices globally and specifically amongst higher education institutions in South Africa to develop best practices for Historically Disadvantaged Institutions.

The objectives of this study were:

- To analyse and identify best high-performance sports practices globally through an extensive literature review.
- To explore best high-performance sport management practices at Universities and sports organisations with high-performance systems in South Africa.
- To develop guidelines for best high-performance sport management practice at historically disadvantaged institutions.

1.7 Definition of Key Concepts

Best Practice:- A working method or a set of working methods officially accepted as the best to use in a particular business or industry (Cambridge University Press, 2008).

Elite Athletes:- An athlete competing at national, international and professional levels of the sport.

Governance:- A process in which an organisation, network of organisations or a society steers itself, allocates resources and exercises control and coordination (Rosenau, 1995).

Higher Education Institutions (HEI's):- means any institution that provides higher education on a full-time, part-time or distance basis (Higher Education Act, 1997).

Historically Disadvantaged Institutions (HDI's):- South African Universities, Colleges, and Technikons who, due to the Apartheid policy, were established for non-whites to enforce the Apartheid regime. These institutions received less funding and had poor infrastructure than Historically White Institutions (Report of the Ministerial Committee for the Review of the Funding of Universities, 2013).

High-Performance Sport (HPS):- The process and outcomes of athletes and coaches in a daily training environment and competition at the elite end of the spectrum of sport (De Bosscher et al., 2013).

High-Performance Sport System (HPSS):- The communication or non-communication and organisation of stakeholders (such as athletes, coaches, sports scientists, sport managers, government) that focus on HPS within an organisation (De Bosscher et al., 2013).

Historically White Institutions (HWI's):- South African Universities, Colleges, and Technikons who, due to the Apartheid policy, were established for whites to enforce

the Apartheid regime. These institutions excluded African, Colored and Indian students, received more funding and had excellent infrastructure than historically disadvantaged institutions (Report of the Ministerial Committee for the Review of the Funding of Universities, 2013).

South African Sports Confederation and Olympic Committee (SASCOC):-

Department responsible for the preparation, presentation, and performance of teams to all multi-coded events (such as Olympics, Paralympics, Commonwealth, Olympic Youth Games, All Africa Games) in South Africa (The White Paper on Sport and Recreation for South Africa, 2013)

Sport and Recreation South Africa (SRSA):-

The National Government Department is responsible for all sport in South Africa (The White Paper on Sport and Recreation for South Africa, 2013).

Student-Athlete:-

an individual who engages in, is eligible to engage in, or may qualify in the future to engage in, any intercollegiate sport. An individual who is permanently ineligible to participate in a particular intercollegiate sport is not a student-athlete for purposes of that sport (United States Code 2004, p.104).

1.8 Study outlay

The research outlay will consist of the following:

Chapter One covers the introduction where a background of high-performance sport management systems and a history of how Historically Disadvantaged Institutions were established. It further covers the theoretical framework in which the thesis is placed, addressing the central research questions, aims, and objectives.

Chapter Two provides a broad literature review and focuses on high-performance sport systems globally, including those of a few South African sporting organisations.

The research framework will be discussed in more detail, and it will be used to indicate the boundaries of the literature to be reviewed. The key concepts around which the study is built will be clarified, and then the Chapter will end with an overview of the main points derived from the reviewed literature.

Chapter Three outlines the research strategy and justifies the research approach selected to investigate the stated research question. The Chapter will further summarise the specific methods and procedures adopted. The data collection process will be detailed, and data coding and editing procedures will be mentioned.

Chapter Four discusses the results and analysis of the qualitative design utilised. The presentation will be based on commonly occurring themes identified due to applying the thematic research technique. Main trends or patterns that may emerge will be discussed. An explanation of how the questions were selected will be provided, and results will be presented in this Chapter. It will end with a summary of both positive and negative main results.

In Chapter Five, the main findings will be drawn together with the literature review. It will conclude with an assessment of high-performance sport systems at the selected universities and conclusions of the literature review. Finally, it will identify lessons learned from the findings and propose recommendations or guidelines that Historically Disadvantaged Institutions can use. The more significant relevance of the study and aspects needing further research will be mentioned in this Chapter.

1.10 Summary of Chapter

This chapter provided a brief history of high-performance sport, and the evolution of HPS was also briefly discussed. It touched on the reasons why governments worldwide invest in elite sport. One of the reasons highlighted was the need for

governments to achieve political objectives such as uniting the different races in the country in the case of South Africa. It highlighted the elements necessary to operate successful HPS systems such as organisational, financial, and physical resources and underpinned the importance of sports science research. It furthermore provided a brief history of HDI's in South Africa and a rationale for the difference in sporting achievements between historically black and historically white institutions. It also highlights the roles universities play in the preparation of Olympic athletes, noting that research shows that several student-athletes are making up Olympic teams of various countries. The SPLISS framework is introduced as it serves as the research lens through which this study was conducted.

The next chapter will detail the SPLISS model and review international literature related to different models of HPS systems.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The focal point of this study was to explore and analyse the best high-performance sport systems globally with the specific purpose of creating guidelines for historically disadvantaged institutions to develop their strategies. This literature review provides an overview of key research areas relating to HPS systems and models, focusing on the SPLISS conceptual framework. SPLISS will be used as a lens for this study, and it will also reflect on the history of HDI's and end by providing insights into benchmarking of elite sport systems.

2.2 Developments in the field of High-Performance Sport

Over the last decade, the term high performance went from Cold War performance factories to become entrenched in the sporting industry's upper echelons and into the vernacular of mass sport (Hill, 2021). In South Africa, one would be hard-pressed to find a professional sport that does not advertise a high-performance approach or have a high-performance director. Elite sports success is highly sought after from the Olympics and professional ranks to higher education.

In recent years, thinking among sport management researchers and sport science professionals have shifted. The previous focus on separating individual areas of performance science integration and management philosophies have begun to be replaced by a new approach. This novel method integrates athlete development principles directed by a management model grounded in organisational leadership theory (Arnold et al., 2015). High-performance sport management is a growing sub-

category within the sport management field. This approach focuses on the unique blend of management, leadership, and performance development expected for the elite levels of sport competition. Despite growing interest in the topic of high-performance sport management, there is much we do not know. High-performance sport has emerged as an umbrella term that captures the enormity, growth and pervasive nature of elite sports on the global scene (Sotiriadou & De Bosscher, 2018). The evolution in HPS dates back to the 1950s and the onset of the Cold War (Houlihan, 2013). Until the 1970s, the typical elite sport system operated in a fashion where talented or elite athletes would train with a coach under the supervision or direction of the sports federations (Houlihan & Zheng, 2013). Since the mid-1980s, HPS evolved from this 'athlete–coach–federation' relationship to a complex team of support staff (i.e. physiotherapists, doctors, soft tissue therapists, strength and conditioning coaches, psychologists, physiologists, biomechanists, performance analysts and career lifestyle coaches) (Collins et al., 2013).

Many strong performing nations realised the value of sporting success at the international level and started making elite sport development part of their national agenda. This agenda also emerged researchers' interest in better understanding elite sport systems, explaining factors that influence successes and characteristics that shape policy. In particular, the question of why some nations succeed and others fail in international competition has appeared as an emerging field of study over the past two decades (Andersen and Ronglan, 2012; Bergsgard et al., 2007; De Bosscher et al., 2006; De Bosscher et al., 2015; Digel et al., 2006; Green and Houlihan, 2005; Sotiriadou and De Bosscher, 2018). While research in sport management has been widely defined, the sub-field of managing HPS is relatively new and has emerged from elite sport and its practices. Sotiriadou and De Bosscher (2013, p.13) stated that the

"shifts in industry practices (i.e. hiring high-performance directors and placing emphasis on high-performance management practices) have not been matched with an equivalent focus of academic inquiry that would help define the field, distinguish it from other fields and illustrate its significance in empirical ways". There is a considerable body of research on high-performance sports management examining successful practices, traits, characteristics, and management models overseas (Ross et al., 2018; Sotiriadou & De Bosscher, 2018; Armstrong & Taylor, 2014; Eubank et al., 2014; Arnold et al., 2012; Fletcher & Arnold, 2011; Smolianov & Zakus, 2008; De Bosscher et al., 2007a; Erickson et al., 2007).

Because sport management is understood as a system, there is considerable potential for elite sport organisations to design and provide a positive and purposeful influence on the development of athletes and staff through relevant programs, courses, services, and events. These are intricate sport management systems that integrate business knowledge, performance development, motivation, focus on professional and leadership development and measures to improve culture, organisation, and performance (Hill, 2021)

As the wide range of literature on talent identification and development in the field of sports science endorses, the HPS process starts with attracting athletes and then retaining and nurturing them (i.e. the ARTN processes) in the sport system (Gleeson, 2019; Sotiriadou and Shilbury, 2009). In these processes, many organisations and stakeholders offer opportunities for competitions, training in specialised facilities, coaching and skill development, talent identification, selection, development and transition to higher levels of competition (Rees et al., 2016). Hence, HPS hinges on the successful ARTN sport development processes and stakeholder input. These processes represent the first unique characteristic of HPS (i.e. the sport's development

reciprocity) where, in most cases, success at the top does not occur in a vacuum. Success results from everything that happens at the early stage of selecting and developing talented athletes aiming to succeed in their athletic performances. HPS operates in a fast-paced, highly dynamic environment. This creates a second unique characteristic of HPS (i.e. the open system reciprocity). Specifically, while on the one hand, HPS is influenced by the social, cultural and economic conditions of the community in which it operates (Chelladurai, 2009), on the other hand, these performances and elite athletes in general, have a pervasive effect on society, economy, government decisions and policy direction (Houlihan, 2013). Managing HPS is a complex process that operates at and is influenced by macro-, meso- and micro-level factors (De Haan & Sotiriadou, 2019). These levels will be addressed in more detail when HPS systems are discussed later.

Sotiriadou and De Bosscher (2013) drew attention to the complex and fast-paced environment in which HPS operates where specific pressures from media, sponsors, and society influence the management of HPS (e.g. commercialisation of elite sport, doping, match-fixing and corruption) and how individuals or organisations deal with that. How often, as an example, do we not have to read about corruption at the National Federation (NF) level in South Africa (SA). South African Sports Confederation and Olympic Committee (SASCOC) and Cricket South Africa (CSA) are typical examples of sports organisations in SA constantly being in the media for, amongst other things, issues on corruption, racism and sexism. Houlihan (2013) stated that these factors closely influence how national and international organisations at the public, not-for-profit or commercial sectors manage HPS.

Over time, and in particular, over the past decade, the growing research interest on managing HPS has become more theoretically robust by drawing from different

approaches, such as organisational performance (Winand et al., 2013), organisational capacity (Robinson and Minikin, 2011; Truyens et al., 2016), organisational theory, inter-organisational relationships or stakeholder involvement theories (Sotiriadou et al., 2017; Thibault et al., 2010), (elite) sport policy, culture (Sotiriadou et al., 2014), sport development (Smolianov et al., 2015). This growing body of work provides a vital starting point in the scholarly understanding of the context, processes and factors involved in or that contribute to managing HPS systems. It also offers an insight on, and very much a core focus for this study, the variety of resources required stakeholder input and roles and relationships in developing athletes from grassroots to elite levels of performance. With that said, the focus will now change to a deeper understanding of what high-performance systems entails.

2.3 High-Performance Sport Systems

Key HPS elements can, according to Palaelogos (1976) and Platonov and Gusgov (1994), be tracked to the rational preparation of ancient Greeks for their Olympics. These preparations included macro (several years) and micro (several days) training cycles that are still evident to this date and, although so much more advanced, are still relevant today. In addition, to illustrate where performance-based management practices had their origin, Taylor's (1914) theory, which was applied to production lines during the Industrial Revolution, is a good example. Taylor prescribed a larger ratio of managers to workers than previous management models. According to this theory, the key to operating at a higher output using scientific management will guarantee a higher level of control over the daily practices of employees. Scientific management was also referred to as "process management" in its infancy, implying that monitoring the daily procedures to a greater degree will direct the outcome.

Scientific management used practical measures to determine essential processes. Driven by data, informed decisions are made instead of accepting tradition, opinion, and pre-existing notions on which to base decisions (Lieber & Mc Connel, 2011). This is relevant even today as Badau et al. (2010) explained: "performance management in sports activity cannot be accomplished without the use of scientific methods and techniques, which can ensure the knowing and the efficient application of objective economic laws, efficient and rational resource administration, stimulation and creativity use of sport instructor-managers, proper evaluation of results, decision making optimisation and of all management functions, technical, economic, social-political and human dimensions integration for sportive structures" (p. 90), thus further connecting the industrial revolution's management system to modern-day European sport. Using the initial rudimentary overview of Taylor's Scientific Management Theory (1914), it is not difficult to realise the parallels to the English Premier League's High-Performance Model of sport management (Smith & Smolianov, 2016). Research conducted by De Bosscher, De Knop, Van Bottenburg and Shibli (2006) and De Bosscher, Bingham, Shibli, Van Bottenburg and De Knop (2008) provide a conceptual framework for the practical analyses of organisational approaches to elite sport system development. Their framework analyses sport policy clustered together with the relationship between individual and national success across three levels of analysis (micro-, meso- and macro-levels). It is believed that utilising these three levels provides sufficient clarity on how the analysis variables differ. There is an appreciation that these levels do not operate in isolation, but they will affect, in some way, the cultural fabric of that society under investigation.

2.3.1. Organisational effects: Macro-level success factors

Macro-level effects examine factors such as population, wealth and political and economic systems and are therefore concerned more with the cultural contexts in which people reside (De Bosscher & De Knop, 2003; De Bosscher et al., 2006; Sotiriadou & Shilbury, 2009; De Bosscher, Shibli, van Bottenburg, De Knop & Truyens, 2010). For example, many of the studies relating to macro-level effects, the determinants of which may promote or inhibit success, are beyond the control of governments and politicians (Sotiriadou & Shilbury, 2009; De Bosscher et al. 2013). To a greater degree, much of the macro-level research is directed to measuring elite sporting success in the former Eastern Bloc countries (Former Soviet Union) and the German Democratic Republic (GDR) by outputs such as podium spots or international placing achieved between the 1950s and 1990s. Over this time, the Eastern Bloc countries' dominance at Olympic games led to many nations thinking this approach to elite sporting development was to be adopted (Green & Oakley, 2001). The availability of data at macro-level studies can be attributable to government agency related statistical data that is readily available for public access, prompting researchers to adopt a more fiscal proposal behind success. Of these studies, a number explains that 50% of the total variance of international success can be attributed to Gross Domestic Product (GDP) and population (De Bosscher et al., 2015). Interestingly, Truyens et al. (2016) explained that there is little consensus across studies highlighting the effect of factors such as politics, religion, urbanisation and cultural effects

2.3.2. Organisational effects: Micro-level success factors

In contrast to the meso-level studies relating to policy-level decisions, several studies have taken a more "micro-level from within" approach to ascertain any distinguishing factors leading to success. Micro-level effects are concerned with the individual nature of development and outline genetic and environmental factors relating to elite sporting success (De Bosscher et al., 2006; De Bosscher et al., 2010; De Bosscher et al., 2013; Sotiriadou & Shilbury, 2009).

Fletcher and Wagstaff (2009) found a common theme emerging upon reviewing related studies commissioned by the United States Olympic Committee. The first two commissioned study participants were the athletes and coaches, collecting data from focus groups and in-depth interviews. The findings relating to poor performance from the first two studies were; poor team cohesion, planning and travel problems, perceived coaching problems, and media distractions. Conversely, positive findings related to; participation in resident training programmes, perceived support, utilising support, support facilitation and high-quality coach-athlete relationships (Gould et al., 1999; Greenleaf et al., 2001). Therefore, a survey methodology was utilised for the third and fourth studies, involving athletes and coaches separately, to consider trends across the factors that influence performance.

Similarly, organisational-related factors perceived necessary by the athletes included; positive coach-athlete relationships, cohesion, positive perceptions of coach's expectations and abilities to crisis control. The coaches perceived strong team cohesion, lessening of distractions and fair team selection parameters (Gould et al., 2002). A significant factor from all four studies highlights the importance of organisational culture and climate. For example, the importance attached to solid team cohesion, positive coach-athlete relationships and support are considered essential

factors in creating a positive motivational climate (Fletcher & Wagstaff, 2009). A standard view in business research is that high performance consists of team members who are intensely focused on the objectives and emotionally connected to the organisation's end objective. Their culture consists of accountability and frameworks that align experiences, beliefs, and actions with desired team results. The accelerated importance and associated growth of elite performance environments has resulted in a significant increase in sports psychology researchers emphasising the impact of organisational stressors on the overall success of elite performers

2.3.3. Organisational effects: Meso-level success factors

Athletes have a greater chance of achieving sporting success if effective policymaking informs strategic investment (De Bosscher et al., 2006). In direct contrast to macro-level effects, meso-level effects can be influenced and changed. Meso-level results are more operational and relate to the long-term influence of sports policies and the associated implementation of resources through strategic sports programs (De Bosscher et al., 2006; Sotiriadou & Shilbury, 2009). Meso-level studies may be divided into two areas (Sotiriadou & Shilbury, 2009). The first consider several areas at a holistic organisational level, providing descriptive comparisons across nations to uncover differences or similarities (Green and Houlihan, 2005; Green and Oakley, 2001; Riordan, 1991).

The second is more context-specific, providing a more focused approach to the prerequisites for success across nations (Digel, Burk & Farhrner 2006; Green & Houlihan, 2005; Oakley & Green, 2001). Early Meso-level studies were considered inductive by utilising documentation across nations competing at the elite level. For example, Green and Oakley (2001) employed varied data gathering methods, such as interviews, study visits and a review of secondary sources when exploring the flow of

elements within the former Eastern Bloc to the West, specifically to countries across Europe, North America and Australia. Leading into the 1990s, strategies, predominantly in Australia and to a lesser extent Canada, became more aligned to those development policies already prevailing in the Soviet Bloc and GDR (Green and Oakley, 2001; Houlihan, 1997).

This global sporting flow through the migration of policies from the Soviet Bloc and GDR countries was proposed by Green and Oakley (2001). They pointed towards adopting a global model associated with elite sports development. Importantly, even though Green and Oakley (2001) discuss the uniformity or homogeneity of elite sporting systems, there remains a level of associated differences between countries due to government influences that may shape a country's sports system. Green and Oakley (2001) outlined the minimal approach to intervention from the United States (US) government, while France views sport as a public service. It has also been well documented that elite development has been the primary policy for the Australian government for decades (Green, 2005).

The following section highlights the literature on HPS and compares various successful models. It must be stated that these models are mainly based on developed countries.

2.4 High-Performance Sport Models

Perhaps the most overused, misunderstood term in high-performance sport is the word 'model' and its representation. High-performance models are synonymous with sports and performance development (Hill et al., 2021). Researchers use the term high-performance model is utilised by researchers who examine high-performance sport systems, review their practices, strengths and weaknesses, and compare them

to other systems. These “models” are ways to explore and explain the make-up of sport policies believed to contribute to successful performance at the highest levels of competition (Hong To et al., 2013). Here in South Africa, it is used throughout varying levels of competition and sports organisations. Forty years ago, when the Cold War raged between the East and the West, high-performance sport evolved from a contest between individuals and teams into a battle between systems.

This system battle resulted in a greater need for coordination and control in high-performance sport (Ferkins & Van Bottenburg, 2013). The Soviet Union and other communist European countries embraced the elite sport and looked to non-traditional sport disciplines for improving performance. A high-performance sports model was created to increase mass sport participation, directed towards the systematic identification and nurturing of talented athletes. This model drew a sharp distinction from the rest of the world. The model's success prompted the need for a more strategic, planned, and coordinated approach to high-performance sport (Bergsgard et al., 2007). The high-performance model is an approach to manage and lead elite sport. The ‘model’ consists of comparative modelling, management principles, departmental communication, planning, sport sciences, and a holistic approach to athlete development. Even with high-performance management's unofficial status being in its "infancy," what the model is or represents is still waiting to be established (Gillett et al., 2014; Sausaman & Groodin, 2016; Smith & Smolianov, 2016; Smolianov & Zakus, 2008; Sotiriadou & De Bosscher, 2013). Based on the literature, it can be presumed that the model represents several versions throughout the research and academic realm, in elite sports leagues, and within the private performance development sector.

There is no perfect model for comparing different sports practices, let alone one solely focussed on HPS (De Bosscher et al., 2010). HPS models mainly focus on describing the selected ingredients necessary for successful performance. HPS systems are dynamic, complex and varied in design. This is due to the ever-changing sports environment and the cultural and political dimensions that need to be considered when conducting a comparative research study (De Bosscher et al., 2010; Digel, 2002). Comparative models are challenged constantly by newer innovations and ideas to provide maximum support for HPS (Sotiriadou & De Bosscher, 2013). "Therefore, a progressive comparative framework should be flexible enough to encompass the similarities and differences of sport systems and deal adequately with unique and innovative strategies" (Hong To et al., 2013, p. 66).

Critics of early comparative studies, such as Sotiriadou and Shilbury (2009, p.146), found the measurement between Olympic success and elite development too simplistic due to the nature of development being 'multifaceted and not easily measured'. Likewise, De Bosscher et al. (2009) are equally critical of many earlier comparative studies, stating they are too descriptive and lack the depth of analysis across the essential factors of success associated with elite development. Smolianov and Zakus (2008) explained that the initial use of HPS models in Eastern European countries was to develop the sport. Smolianov et al. (2014) detailed how American, Western European, and Australian systems have analysed and partly adapted former USSR HPS models. Long-term athlete development (LTAD) guidelines, authored by Balyi (2002) and Balyi and Hamilton (2004), stem from the USSR and Eastern European sport development approaches as outlined by Riordan (1991). Most Canadian NGBs have implemented these approaches and many NGBs in other English-speaking countries such as Australia, New Zealand, the United Kingdom,

South Africa, and the United States. Theories of training and periodisation pioneered by Matveev (1981) and further developed and applied by Platonov (1988, 2005) and Bompa and Harf (2009), and since then, other sport scientists and coaches have helped many countries achieve sporting success efficiently.

Sport management researchers in the 21st century have attempted to develop optimal models for the organisation of HPS, retaining the “macro-, meso-, and micro” concept which has been used in Eastern Europe to organise and structure training programs: Green and Houlihan (2005) analysed elite sport policies; while De Bosscher et al. (2006); De Boscher et al. (2010) and De Bosscher (2018) summarised successful sport policy factors.

Figure 2.1 (p. 27) shows a model used to analyse sport development in the United States of America and Russia (Smolianov et al., 2014). The model’s macro-level embraces elements of socioeconomic, cultural, legislative, and organisational support for a national sport system by the whole of civil society and by the State. The meso-level includes infrastructure, personnel, and services enabling sports programs, and the micro-level consists of operations, processes, and methodologies for the development of individual athletes.

The interdependent elements of the model are numbered in Figure 2.1 (pg. 27) to express their relative magnitude and importance in a sport system.

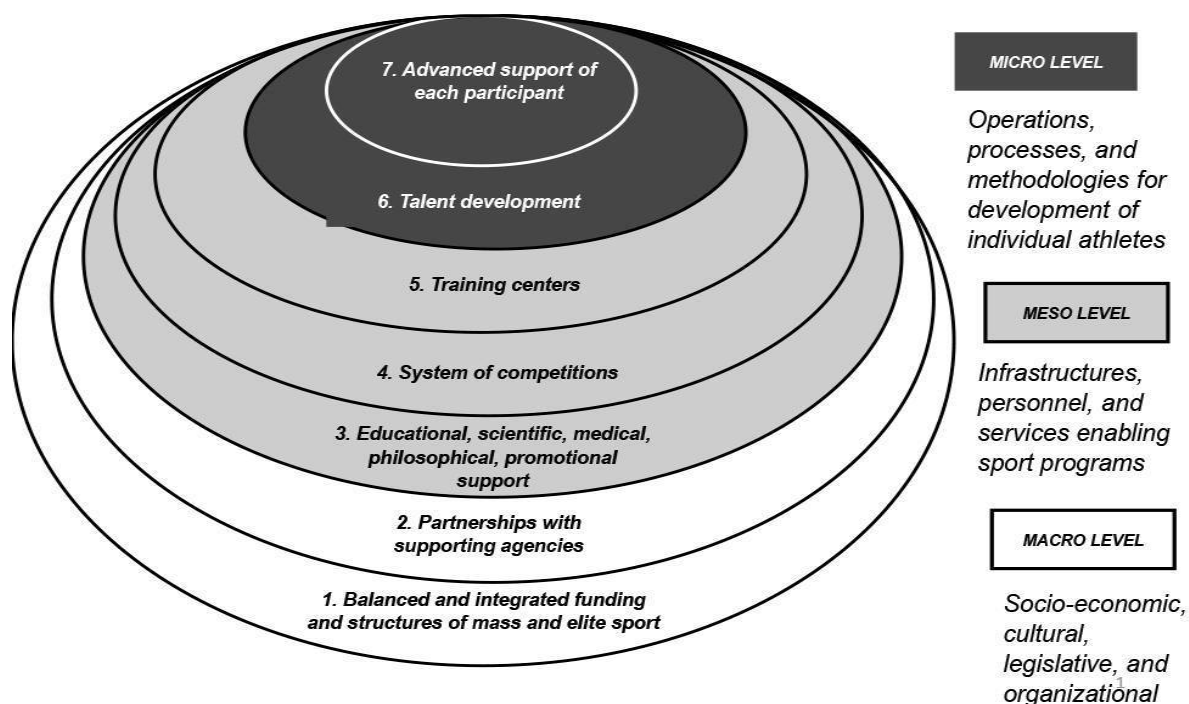


Figure 2.1: Model of Integrated HP and Mass Sports Development (Smolianov et al., 2014, p. 286)

Other models such as those by Fisher and Borms (1990), Abbott et al. (2002), Digel (2002); Green and Oakley (2001); Oakley and Green (2001), identify a different number of critical elements in a successful elite sport development system and shows considerable overlaps between the methods as shown in Table 2.1 (p. 28). In particular, it is possible to organise the elements or characteristics into three reasonably distinct clusters: contextual, for example, the availability of funding/wealth; processual, for example, a system for identifying talent, determining the basis on which particular sports will be offered support; and specific, for example, training facilities (Houlihan & Green, 2008).

Table 2.1: Factors contributing to the elite success (Houlihan & Green, 2008, p.4)

Factors	Oakley and Green (2001)	Digel (2002)	De Bosscher et al. (2006)	Green and Houlihan (2005)
Contextual	An excellence culture Appropriate funding	Support, especially Financial, of the State Economic success and business sponsorship A media supported positive sports culture	Financial support Participation in sport Scientific research	Support to “full-time.” Athletes
Processual	A clear understanding of the role of different agencies Simplicity of administration An effective system for monitoring athlete progress Talent identification and targeting of resources Comprehensive planning system for each sport Lifestyle support	Talent development through the education system Talent development through the armed forces	Talent identification and development system Athletic and post-career support Integrated approach to policy development Coaching provision and coach development	A hierarchy of competition opportunities centred on preparation for international events Elite facility development
Specific	Well-structured competitive programmes Well-developed specific facilities	Sports science support services	International competition Training facilities	Coaching Sport Science Sports Medicine Support services

As can be seen from the table above, although there are some differences, there are many commonalities. Elite sport systems are concerned with systematic and strategic development (Houlihan & Green, 2008). Detailed insights into successful sport

systems such as the former USSR, GDR and AIS showed that an environment that fully supported athletes across several areas, such as indicated by models in Table 2.1 (p. 28), led to a significantly increased likelihood of international sporting success. In sport, there are a few winners and many losers, and therefore, the search for more effective structures have to do with the fact that the system of HPS is increasingly dependent on its environment. This particular point is especially true for historically disadvantaged institutions, where the environment is perhaps not one that can support HPS effectively. According to Digel (2005), sub-systems such as sponsors and television play an essential role in the system's environment. He furthermore suggests that the fundamental necessity of funding from these sources means that HPS makes a new way of thinking, planning, deciding and acting necessary. Therefore, no two systems can be the same. HPS is characterised by the effective amalgamation and synergy of elements, including financial and managerial support, coaching, sport sciences and sports medicine support, talent identification and athlete pathways, training facilities, equipment and competition (De Bosscher et al., 2008). The literature supports this statement when comparing models of prosperous countries as most of the critical factors are the same across them.

Sports Nations are constantly trying to advance their HPS systems to get a competitive advantage. The fundamental question for the HPS professionals is to figure out which practices to adopt as a "one size fit all" approach will not work. The models discussed have identified several suitable methods for HPS managers across the world and include:

- Funding and support
- Specialised HPS facilities and comprehensive training centres
- Talent identification and development

- Integrated management of competitions and camps
- Multidisciplinary science groups
- Uniform education and certification of coaches
- Educational and career path for athletes

The above models have many strengths, including simple, clearly explained actions leading to successful HPS. The limitations identified include the fact that the models are primarily based on European, Asian and Australian systems, where funding is not a big challenge in many instances. This could influence establishing more or less similar guidelines for HDI's, as one of the biggest challenges for the sport administration departments at these institutions is funding.

2. 5 Theoretical Framework (SPLISS)

The theoretical foundation incorporated in this thesis involves the SPLISS conceptual framework (De Bosscher et al., 2006, 2008, 2015). As De Bosscher et al. (2015) highlighted, “the SPLISS model provides a multidimensional approach to effectiveness evaluation of elite sport policies at the levels of input, throughput, output and feedback” (p. 47). Inputs (Pillar 1) are the financial support invested by nations for sport and elite sport and provide opportunities for athletes to prepare and compete towards achieving sporting success (De Bosscher et al., 2015). Throughputs are the processes to affect policy actions and accounts for the resources invested and used to manage the progression from input to output (De Bosscher et al., 2015). Output and feedback are the other dimensions of the model and outcome to a lesser extent. SPLISS takes the actual results from international competitions as an indicator of success in terms of output. Therefore, the model uses the financial allocation of government investment as the source of evidence for input and the actual performance as an indicator of

successful attainment of policy output (De Bosscher et al., 2015). The SPLISS studies have led to developing a nine pillar theoretical model for policy sport, and it is currently applied in fifteen countries. This study has helped nations compare themselves to other nations and identify areas for improvement within their sport systems. This is now one of the only global frameworks empirically examining and benchmarking elite sport policy.

Since the turn of the millennium, there has been a significant increase in both the number and diversity of nations across the breadth of the world taking a greater interest in the development of elite sporting systems (Green & Collins, 2008), with many governments viewing sport as a way to target non-sporting objectives such as community development, social cohesion, education and health-related policies (Green & Houlihan, 2005; Houlihan, 1997). Most countries around the world highly value elite sport. While winning medals at prestigious sports events have long been part of national politics, investment into elite sport systems continues to rise (Grix & Carmichael, 2012; Ronglan 2015; Sotiriadou & Shilbury, 2009). For example, the UK government promised to invest around £125 million per year to prepare athletes for the 2016 Olympic Games in Rio. Given this scope of investment, the question of how national elite sport systems are most effective in developing top-level performances has become central (De Bosscher et al., 2009; Green & Oakley, 2001; Houlihan & Green, 2008). Current research shows that macro-, meso- and micro-level factors contribute to, and or inhibit, elite sport success (De Bosscher et al., 2015; Digel et al., 2006). To analyse the relationship between these multi-level factors and to evaluate the effectiveness of systems' input (e.g. finances) and output (e.g. sporting performance), research headed by the SPLISS group, synthesised what they referred to as pillars (single factors, such as financial support, sporting facilities, talent

identification and athlete development) into economic and sport management/policy composite indicators (De Bosscher et al., 2008; De Bosscher et al., 2009; De Bosscher et al., 2015). While this strategy allows summarising a large amount of data to recognise patterns, interdependencies, and differences in how composite factors relate to a country's success, this research has also received criticism (De Bosscher et al., 2016). Specifically, studies aiming to identify success factors have failed to account for broader social, cultural, political and financial/commercial impacts (Green & Houlihan 2005; Ronglan 2015).

Consequently, De Bosscher et al. (2016) cautions against using composite indicators as standards to generalise and benchmark sport governance because they may overlook local realities. In so doing, the authors call for sport researchers to study the 'how' (throughput processes) and 'whys' (conditions) of sport policy efficiency and effectiveness to determine which factors are reciprocal and what may best work for countries' specific contexts or structures. At present, however, case studies on the social, political and financial factors of sports governance are still limited (Grix 2009; Sotiriadou & Shilbury 2009; Andersen et al., 2015), and the question of how contextual factors diversify the conceptualisation and development of sports governance is poorly understood.

Several studies (Broom et al., 2009; Clumpner, 1994; De Bosscher et al., 2006; De Bosscher et al., 2008; De Bosscher et al., 2015; Oakley & Green, 2001; Rordin 1991) have analysed the characteristics of the elite sport systems, which are shared among nations, and define crucial success factors for international sporting success. Still, to date, only one (De Bosscher et al., 2006) SPLISS, has suggested a model, which considers the elite sport policy decisions by governments as a contributor to success, hence the rationale for choosing SPLISS.

Although the model addresses the evaluation at the national level of high performance or elite sport, it is also designed to be implemented at other levels, for example, by national sports federations (Brouwers et al., 2015) and therefore applicable to this research. The optimum strategy for delivering international success is still unclear. This makes it difficult for sport managers and policymakers to prioritise and make the right choices when developing their strategy or policies for a high-performance sport environment. The basic ideas of this model are related to the generic competitiveness literature, in which researchers seek to determine what makes one firm or nation more successful than its competitors. The measurement of world competitiveness is routinely used in economic studies to provide a framework “to assess how nations manage their economic future “ (Krell, 2003, p.1). The SPLISS study attempts to replicate this approach. This framework was developed, and a method was explored to assess how nations can manage their systems better to become successful in international sporting competitions. The focus is on “manage”, which indicates Meso-level factors, or determinants that can be influenced by human intervention). Figure 2.2 (p. 34) below summarises the SPLISS model and its nine pillars.

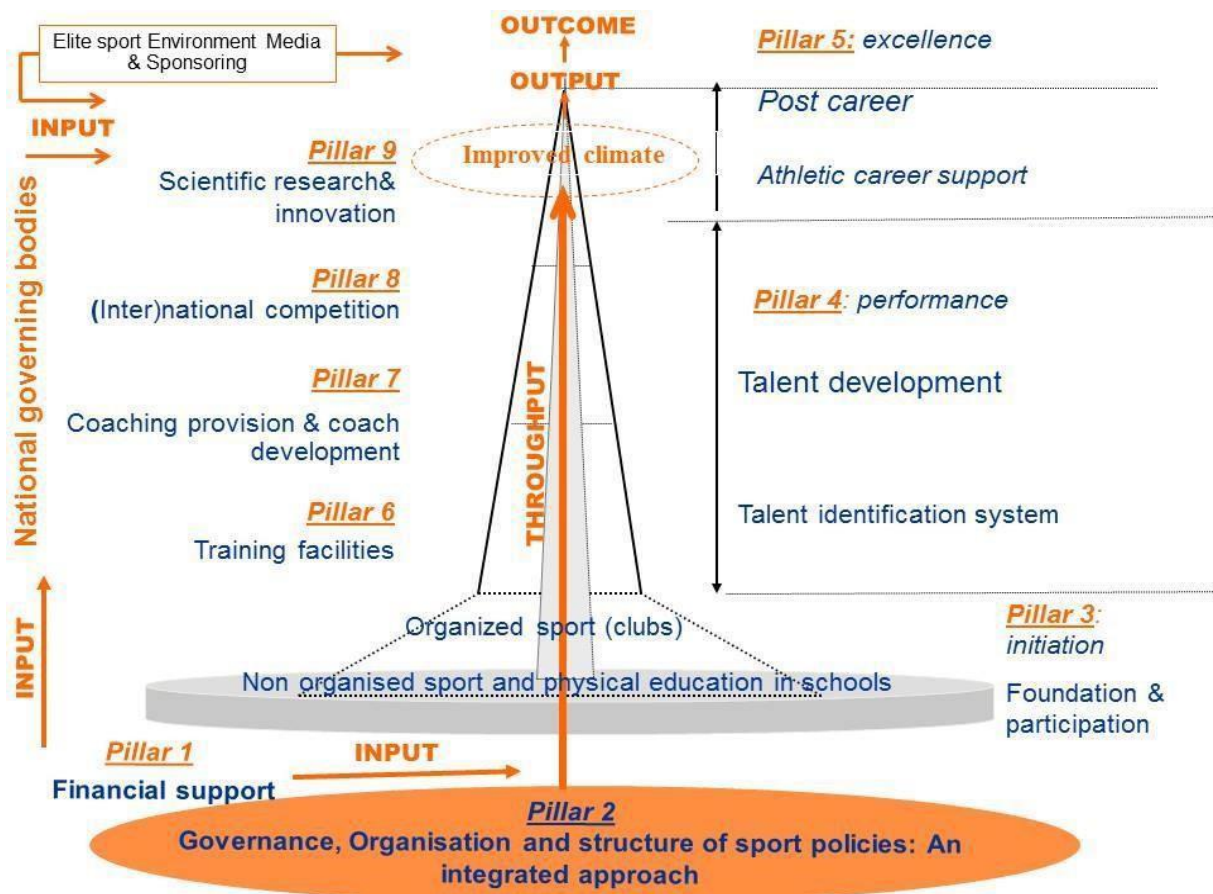


Figure 2. 2: The nine pillars of sports policy factors influencing international success (De Bosscher et al., 2006, p. 206)

“The SPLISS model provides a multidimensional approach to effectiveness evaluation of elite sport at the levels of input, throughput, output and feedback” (De Bosscher et al., 2015, p. 47). Inputs (Pillar 1) are the financial support invested by nations for sport and elite sport and provide opportunities for athletes to prepare and compete towards achieving sporting success (De Bosscher et al., 2015). Throughputs (Pillars 2-9) are the processes to affect policy actions and accounts for the resources invested and used to manage the progression from input to output (De Bosscher et al., 2015). Output and feedback are the other dimensions of the model and outcome to a lesser extent. SPLISS takes the actual results from competitions as an indicator of success in terms of output. Therefore, the Model uses the financial allocation of government

investment as the source of evidence for input and the actual performance as an indicator of successful attainment of output. The outcome is a dimension in which SPLISS omits its evaluation of sporting success. Still, it highlights the connection within elite sport policy, whereby outcomes can be the government's stated reasons to justify the financial investment and support (De Bosscher et al., 2015).

Feedback is the final dimension in the SPLISS model. It indicates two components: 1) consultation with industry stakeholders in the formulation stage of sport policy and 2) regular interactions with industry stakeholders to assess the ability of the policy in achieving its stated goals (De Bosscher et al., 2006; De Bosscher et al., 2015; De Bosscher et al., 2009). De Bosscher and colleagues have called for the continued expansion of the SPLISS model in investigating other aspects of elite sports, and this call was answered by many. While research incorporating SPLISS has covered several areas as mentioned above, one notable underlying argument of SPLISS is the investigation into the country and sport-specific use of elite sport policy for international sporting success (De Bosscher et al., 2008; De Bosscher et al., 2015). De Bosscher and colleagues (2018) advises that: "the SPLISS study does not just identify "what" characteristics successful elite sport systems encompass, but also "how" the different dimensions can be developed. The unique feature of this research is that in addition to measuring easily quantifiable variables, such as inputs (e.g., money) and outputs (e.g. medals), it also delves into understanding the "black box" of throughput both in terms of the existence of various systems components and also the rating that athletes, coaches and Performance Directors gave to these system components (De Bosscher et al., 2007). Studies such as Truyens et al. (2016) and all others mentioned previously have advanced the knowledge on elite sport policy in comparative, country-specific, and sport-specific studies, providing information relevant to the

understanding as to why governments invest in elite sport and what are the SPLISS related factors underlying success, or other factors not typically analysed by this Model. Furthermore, the findings highlight a convergence necessary for the development of the elite sport.

This framework allows for a more fulsome analysis of government actions or inactions through policy and financial input and sports units such as higher education institutions (HEI's). The SPLISS framework also indicates a logical flow from input to outputs and eventual outcomes. This allows for the analysis of policy at all levels, not only at the meso-level through government intervention (or at governance level) but also at macro and micro levels through the environment of sport. The SPLISS conceptual framework acknowledges the importance of environmental factors, such as culture, politics, sponsorship, and media, contributing to an organisation's sports development program. Digel (2000, as cited in De Bosscher et al., 2015) highlighted several other environmental factors critical to excellent sports performances. An example is the role of the national education system; the influence of the private sector in collaborating in sports development; the media as a supporter, detractor or promoter; and broader society's attitudes to the sporting performances. Sport-specific studies furthermore found that the tradition of sporting success, culture and the commercial environment are factors capable of international success. For example, Sotiriadou, Gowthorp, and De Bosscher's (2014) investigation of sprint canoe's success in Australia concluded that the sport's culture helped shape policy linkages and interschool culture relationships including a connection between culture and the identification of talent.

Additionally, Brouwers et al. (2015a) concluded that the success within the sport of tennis results from the culture (school culture, general sporting culture, and sport-specific culture). The public school and sporting culture findings suggest that while the

school system does not allow for adequate training time, the commercial environment provides clubs and academies where talented athletes can train and develop their skills. In terms of the sport-specific (tennis) culture, the findings indicated the importance of the performances of elite athletes, the importance of role models in the sport, the history of success within the sport, and the cultural significance of the sport compared with others and further emphasised that environmental factors are essential to the success of sport (Brouwers et al., 2015a)

2.6 High-Performance Sport at Higher Education Institutions

If we look into the pages of history, we will know that most sports were developed in educational institutions in the 1800s. At Exeter College, Oxford, in 1850, the undergraduates decided to adopt a steeplechase and used three feet six inches high agricultural hurdles for a race of 140 yards (Hill, 2021). He furthermore notes that the Harrow school in England invested heavily in extending their playing fields from eight acres in 1846 to one hundred and forty-six acres in 1900. The university and colleges at Oxford and Cambridge did the same to promote sports. Pierre de Coubertin, the father of modern Olympics, drew heavily on the philosophy of English public schools and universities in drawing up his ideas for a revival of the Olympic Games.

Universities worldwide play a pivotal role in promoting elite sports development. To prove this fact, one only has to look at the statistics of the student-athletes who represented their respective countries at the 2016 Rio Olympic games. The Federation of International University Sport (FISU) reports that the 2016 Olympics were the most successful for student-athletes in recent history, with countries such as Australia, France and Canada's student-athletes accounting for more than half of the total medals per country. In both the 2012 and 2016 Olympics, Australia's student-athletes

accounted for 63% and 61% of the total medal tally. Many of the athletes in the South African National teams, in general, comprise students, with most of the medals at the 2016 Olympics also won by students such as Castor Semenya (UP) and Wayde Van Niekerk (UFS).

Whether students or not, many of the athletes are members of a particular Institution's sports club and structure, providing them with expert services such as coaching, training facilities, and sport science support. Studying and training have become the new norm and provide an excellent pathway for future Olympians. Australian University Sport CEO Don Knapp attributed the performance of the Australian student-athletes to the support pathways created by elite student-athlete programmes at Australian universities. "Many of our member universities facilitate dual career education through scholarships which enable student-athletes to pursue elite sporting careers, complete tertiary education and maintain a healthy balance" (Fisu.net, 2016).

RIO 2016 AUSTRALIAN STUDENT-ATHLETE STATISTICS

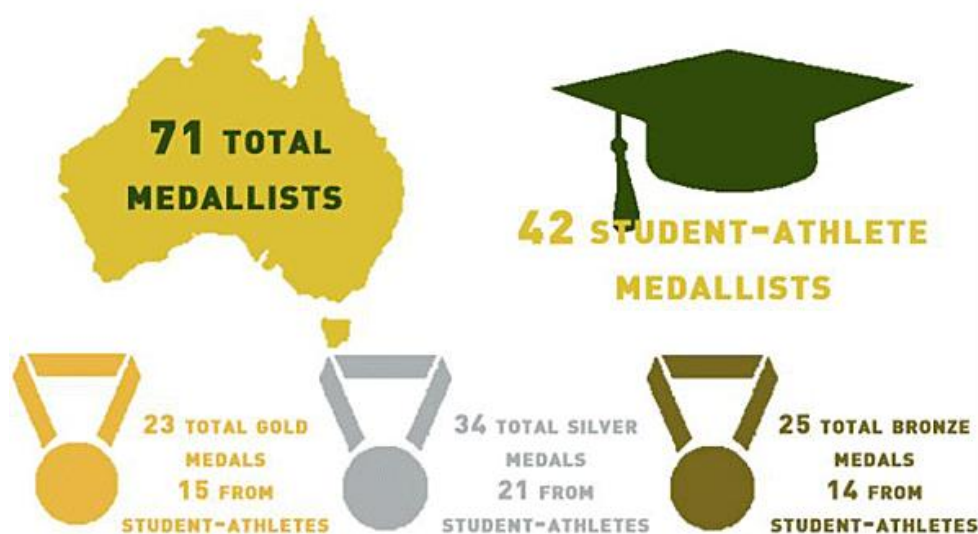


Figure 2.3: Illustration of the Australian student-athlete's performance at the 2016 Rio Summer Olympic Games (Fisu.net, 2016)

The availability of world-class sports facilities and expert scientific services makes universities potential hubs for facilitating sports excellence and key stakeholders in developing elite athletes (Universities UK, 2013). The status of universities in research, high-profiled academic programmes, and sporting success form the crux of inter-institutional competitiveness. Universities must, therefore, align themselves with other institutions and stakeholders to optimally deliver on the nation's strategic national objectives, of which one of them is the sports industry and particularly in terms of elite athlete development. Only then can it fulfil a critical role in the country's economic growth, prosperity, and innovation. The increased visibility of successful athletes attracts universities to capitalise on the status and visibility of high-profile athletes in the HPS sector for marketing and branding purposes (Bourdieu, 1986; Burnett, 2010). In the sport's professional era and increased competition between universities to attract students, the sport has rebuilt a reputable brand and attracted students who could find a career pathway to elite sport during their years of study. Building and maintaining a favourable brand image of a higher education institution can significantly impact the recruitment of potential world-class students. However, these student-athletes must be well supported at all levels by their respective Institutions.

Digel et al. (2006) compared successful sport systems in eight nations (Australia, China, Germany, France, Great-Britain, Italy, Russia, USA). They found that exceptional support and assistance are implemented in various ways by universities in these countries when combining regular training and academic commitments. In France, for example, the strong pursuit of accommodating high-performance athletes is evident in more than one hundred universities where the athletes are offered support with sport-related services and academic training. Some universities reserve a certain

number of study places for HPS athletes, whilst others make an extension of courses possible and offer flexible exam dates amongst support provided to student-athletes. The universities in the USA and Australia support their high performing student-athletes by providing, amongst other things, huge scholarships, the use of modern sports facilities, financial aid for competitions, accommodation and travel, sports medicine and sport science care. In China, high-performance athletes are accommodated at universities by granting simplified university entrance, and reduced academic requirements make the combination of studies and training or competition possible. The rest of the countries in the study showed more or more minor similar support services for student-athletes except for Italy, where privileges for high-performance sports athletes only exist after individual consultation between athletes, their sports federations and the respective universities.

More and more countries value the higher education of elite athletes, with Australia being at the forefront. The value of combining both sport and higher education to achieve tremendous life success is well recognised across the university and sporting sectors in Europe and Australia, where the Elite Athlete Friendly University program (EAFU) has become policy. A summary of what this program entails is illustrated in Figure 2. 4 (p. 41).

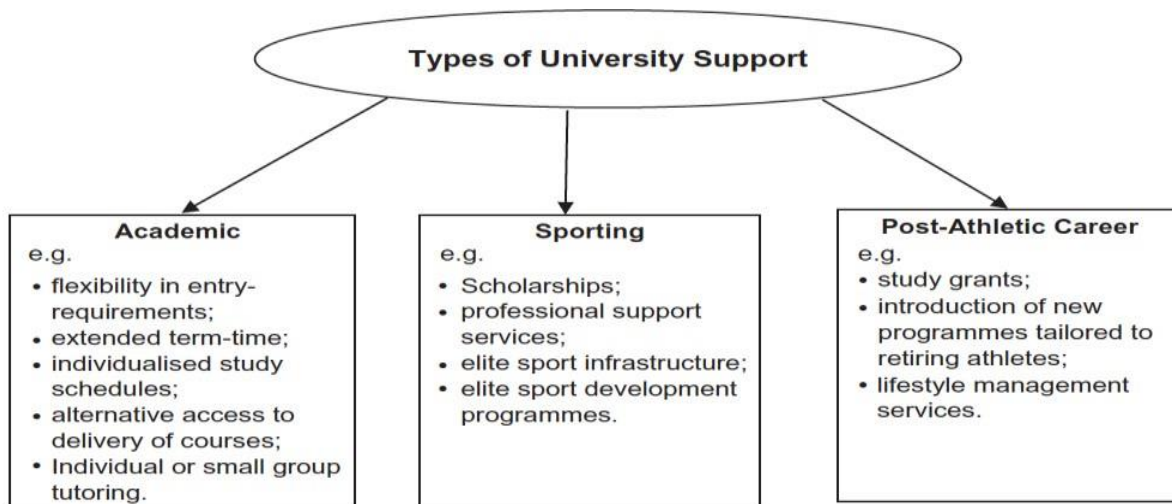
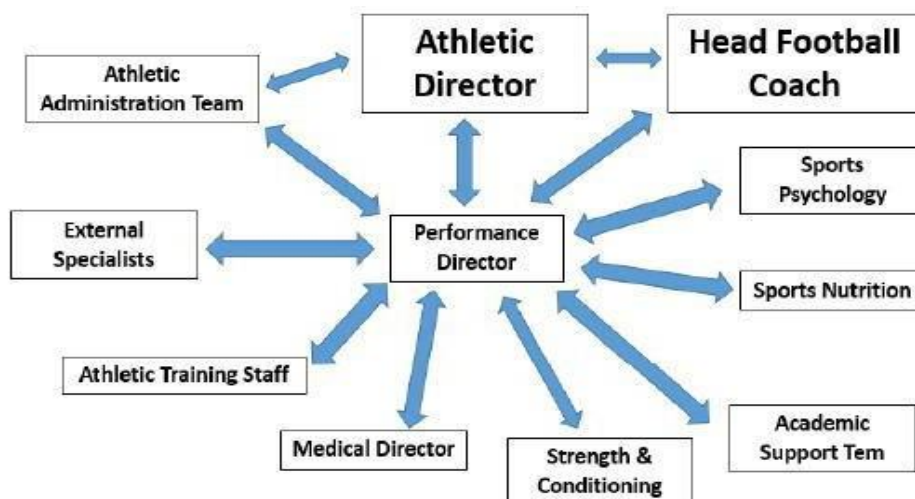


Figure 1. The adaptation by universities of services for elite young sports persons.

Figure 2.4: The adaptation by universities of services for the elite young sportspersons (Aquilina & Henry, 2010, p. 27)

In the United States, a University Model has been created to integrate specific needs for the student-athlete. This model considers the additional areas and resources desirable for the National Collegiate Athletic Association (NCAA) athletes to succeed.

Figure 2.5 (p. 41) Illustrates these specific needs.



UNI High Performance Model

Figure 2.5: The Smolianov and Zakus Model (Smith & Smolianov, 2016, p. 5).

2.7 High-Performance Sport at Higher Education Institutions in South Africa

In South Africa, Sports and Recreation South Africa (SRSA) has called for establishing strategic partnerships with tertiary institutions to effectively support elite athletes, which may develop their potential into excellence (SRSA, 2012b). Burnett (2010) reports significant partnerships between Universities, SASCO and National Federations, with SASCO adding a University sub-committee as part of the governance structure. South Africa's hosting of a successful FIFA World Cup in 2010 is a relevant example of the impact of sport on a nation and the vital role that a few universities played during this period.

Higher Education Institutions are at the forefront as a contributor to sports development. (Burnett, 2010). In South Africa, some HEI's provides managerial expertise, physical resources and scientific support to optimally support elite athletes and nurture their careers in high-performance sport. However, HEI's contributions are hardly noted in the National Sport and Recreation Plan of 2012. There is no articulation of the value of the academic sector besides a brief mention of the role university sport has to play. This does not make sense since HEI's are hubs for scientific research, rigorous evidence and monitoring and evaluation. Despite the lack of mention, many tertiary institutions contribute meaningfully to the development of sport and, in particular, the area of HPS and are finding ways to combine academics and a career in sports successfully. Several HEI's in SA offer potential students with, amongst other things, academic and admission support, sports medicine support, sport-specific training, world-class facilities, coach education and life skills programs. The human resource component of sports units at HEI's is crucial in facilitating university sports opportunities. With the absence of experts (which is the case, especially HDI's in SA),

managing these highly specialised areas can have a detrimental effect on the success of such units. Chelladurai (2007) and Riemer (2007) both concluded that performance leadership at the managerial level of organizations had been considerably overlooked by sport management researchers who have tended to focus on coaching-related leadership.

It is now starting to be recognized that athletic performance is the responsibility of the high-performance director and the high-performance personnel as it is that of the coach. According to Burnett (2010), the guiding philosophy, availability of resources, buy-in from executive leadership, locality and in-house dynamics translates into HEI's unique practices. Being informed and acting strategically, representatives from HEI's should focus on being issue or discourse-driven in facing the challenges individually and collectively to make a difference within its sphere of influence, from local to the international level. Therefore, universities should recognise their niche areas and position themselves according to their strengths in delivering high-performance sport to national stakeholders before becoming tangible national assets. Institutions in SA such as the UP, North-West University in Potchefstroom (NWU- Pukke) and Stellenbosch University (SU) have successfully put such programs in place and are producing many of the country's elite athletes. The high-performance centre (HPC), where the SA Olympic team is often based, is located at the University of Pretoria. NWU has a world-class High-Performance Institute (HPI) where athletes and groups from all over the world often end up preparing for world competitions. The Stellenbosch Academy of Sport (SAS), home of the SA 7's rugby team, is a stone throw away from SU and often serves as a ground for Maties Sport. SU is also the training base for the SA Paralympic team due to its world-class facilities.

Even “smaller institutions” have become increasingly entrepreneurial to generate additional revenues and channel them towards their sports programmes whilst capitalising on the image of alumni as star athletes and officials to market themselves (Lee et al., 2008). This is the case for the University of the Western Cape (UWC). Despite its lack of resources, it recognises the value of sport. It employs well-known coaches such as Paul Treu (a former SA sevens coach) and Thinasonke Mbuli (Assistant coach of the SA National Women’s football team) to raise the profile of its teams and ultimately that of the University.

The spending on recruitment by larger institutions, particularly Historically White Institutions (HWI’s) on elite athletes, has substantially increased over the last decade. “Cheque book universities” have been spending vast amounts on the recruitment process (Burnett, 2010), luring talented athletes with promises of full cost bursaries, accommodation, food, transport expenses and even pocket money. This became even more visible since the inception of the Varsity Cup and Varsity Sports competitions in SA. Research has shown that talented athletes are attracted to excellent resources such as scholarships, excellent training facilities, good coaches, and quality academic programmes (Burnett, 2011) and opportunities to be selected for provincial and, ultimately, national teams. Currently, the HEI’s with successful high-performance units in South Africa are the HWI’s. These institutions also have the best resources and facilities and rich sporting traditions. They, therefore, have a substantial competitive advantage over their counterparts, former black institutions, as is evident in the results at the various University Sports Competitions in South Africa.

It is essential to briefly discuss how the disparities between HDI and HWI’s and the subsequent effect on sport delivery at HEI’s in South Africa came about.

2.8 Historically Disadvantaged Institutions in South Africa

Hendrik Verwoerd, the President of South Africa in 1948 and the architect of Apartheid, said that: “When I have control over Native Education, I will reform it so that the Natives will be taught from childhood to realise that equality with Europeans is not for them. People who believe in equality are not desirable teachers for Natives. When my Department controls Native Education, it will know for what class of higher education a Native is fitted, and whether he will have a chance in life to use his knowledge. What is the use of teaching the Bantu child mathematics when it cannot use it in practice? That is quite absurd” (Hirson, 1979, p. 45).

South Africa has had a long history of social and political upheavals. Before multiracial elections and subsequent independence in 1994, the enforcement of apartheid laws and intensifying the struggle against it had a considerable impact on the country's management and development of social order. Several repressive laws, especially the Group Areas Act, entrenched the ideology of separate development and marginalised black South African people (Toriola et al., 2006).

Instead of denying university education to blacks by relying on the admissions policies of the established white universities, the Apartheid state embarked on a determined approach to creating universities for the various state-defined ethnically classified black groups. For Zulu and Swazi speakers, the government created the University of Zululand. The University of the North (Turfloop) was designed for Sotho, Tswana, Venda and Tsonga speakers. The University of the Western Cape and Durban-Westville was created for those classified as Coloureds and Indians by the state (Horell, 1968).

It is imperative to acknowledge that universities' emergence, roles, and cultures in contemporary South Africa relate quite directly to the history of white political,

economic, and cultural domination. Consequently, higher education reflects the history of unequal relations of power perpetuated during colonial and Apartheid rule (Wolpe, 1991; Nkomo, 1990; Badat, 1999). Consequently, these institutions were not only under-resourced compared to other universities that white South Africans predominantly attended but were 'destined' to perform below par on academic and competitive sports. Apartheid policies and values permeated historically disadvantaged institutions in South Africa to the extent that provision and management of sport at these institutions manifest symptoms of this historical past which are a setback to development.

This is evident in how the sport is still being delivered at higher learning institutions in South Africa, especially concerning priority codes. Burnett (2010), as illustrated in Table 2.2 (p. 47), identified three types of University clusters. At the one end, there are the more rural and smaller institutions (based on the number of leagues and high-performance participants), a middle category for medium-sized institutions, and then the larger sports institutions, which are mainly responsible for delivering specialist services and high numbers of competitive and elite sport participants.

Table 2.2: Typology of universities in terms of delivery of competitive sports participation (Burnett, 2010, p. 9).

Category 1	Category 2	Category 3
Student experience	Student-sport	Multi-faceted/commercial
Internal focus	Internal and sport focus	Internal, sport and external foci
Developmental	Development and competitive	Development, competitive and high performance with scientific support
Local communities	Urban	Urban (bigger cities)
Limited resources	Adequately resourced	Well-resourced and commercially driven
Business as usual	Opportunity driven	Innovative and strategic
UL, UNIVEN, CUT, DUT, WSU, UFH, MUT, CPUT, UZ	VUT, UWC, UKZN, RU, WITS, UCT, NMMU, TUT	UP, NWU, SU, UFS, UJ

The rankings at high-performance sports competitions such as Varsity Cup and Varsity Sport still see the likes of SU, NWU, UFS and UP leading the medal tally amongst universities in SA. This is especially evident for priority codes such as rugby, netball, hockey, swimming, athletics and cricket, thus confirming the long-term effect the legacy of Apartheid left. Below are rankings for the Rugby and Netball competitions over the last ten years, which indicates that HWI's still have a significant advantage when it comes to sporting achievements and performances

Table 2.3: Varsity Cup competition results between 2008 and 2020 (Varsitycup.co.za, 2020)

YEAR	TEAMS
2008	FNB UCT vs FNB MATIES
2009	FNB MATIES VS FNB NWU
2010	FNB MATIES VS FNB UCT
2011	FNB UP VS FNB UCT
2012	FNB UP VS FNB MATIES
2013	FNB MATIES VS FNB UP
2014	FNB NWU VS FNB UCT 33
2015	FNB UFS VS FNB NWU 63
2016	FNB MATIES VS FNB NWU
2017	FNB UP VS FNB MATIES
2018	FNB MATIES VS FNB NWU
2019	FNB MATIES VS FNB UP

Table 2.4: Varsity Netball results between 2008 and 2019 (Varsitysportssa.com, 2020)

YEAR	TEAMS
2013	UFS VS NWU
2014	UFS VS UP
2015	NWU VS MATIES
2016	NWU VS UP
2017	UP VS NWU
2018	UFS VS UP
2019	UP VS MATIES

One of the key features of HDI's in the post-apartheid era is their student characteristics, which comprises mainly poor and under-prepared students who attended under-resourced schools due to Apartheid. However, resources available even to this day to HDI's do not seem to address the challenge's magnitude adequately. Therefore, it is essential that the HDI's critical role in improving the

educational position of the most educationally disadvantaged South Africans be adequately supported.

This study aims to use the concept of best practice to create guidelines for HDI's striving to venture the HPS route. The following section will discuss the ideas of best practices and benchmarking in more detail.

2.9 Best Practice

Bennett et al. (1983) noted that primitive communities utilized comparison to advance and benefit their lives. "Comparative studies of one kind or another have been part of man's life from earliest times. When man first ventured out of his immediate environment and saw how others lived, worked and played, he made comparisons of his life to that of others. He then borrowed and adopted ideas, methods, tools, weapons, or games that were of benefit to him" (Bennet et al., 1983, p. 9). In recent times, the concept of benchmarking has gained popularity as a tool for improving management within the sports industry, especially in elite sport systems where benchmarking has been considered a suitable method of identifying the factors that lead to sporting success. "Elite sport system" is the term used to describe the infrastructure and processes used by a sport to identify, develop and prepare athletes for sporting success. These sports systems have become the focus of much-benchmarking investigation (De Bosscher et al., 2008; Green et al., 2005; Green & Oakley, 2001). Primarily as a consequence of significant events such as the success achieved by the former German Democratic Republic (GDR) during the 1970s and 1980s, which showed that an organised approach towards the support of high-performance sport could result in the systematic production of successful athletes. For example, the Australian Institute of Sport achieved massive success at the 2000

Olympic games because they based their preparations for the Olympics on the GDR system. Therefore, this suggested that it was possible to succeed by benchmarking elite sport systems against infrastructure and processes found in other prosperous sporting nations (Böhlke, 2009)

2.9.1. The concept of benchmarking

Underpinning the benchmarking approach is the concept of learning from best practices. This approach seeks to improve practice through a detailed analysis of the practices used in successful organisations, which are then introduced into an organisation wishing to improve success. A review of the literature in this field highlights many definitions of the concept of benchmarking. Camp (1995), one of the founding researchers in the field of benchmarking, defined benchmarking as “the search for industry best practices that lead to superior performance” (Camp, 1995, p. 8). Bogan and English (1994) suggested a more extensive definition when they stated that: “Benchmarking is the continuous process of measuring products, services and practices against the toughest competitors or those companies recognised as industry leaders” (Bogan & English, 1994, p. 4).

Consequently, benchmarking can be considered a structured process that leads to understanding superior performance in delivering services and products (Camp, 1995; Lankford, 2002; Marwa & Zairi, 2008). Nourayi (2006) has offered several reasons for benchmarking in organisations, and he suggests that organisations can use benchmarking to improve productivity, service design and to identify new opportunities. In addition, Fernandez et al. (2001) have highlighted the advantages of benchmarking in terms of its ability to contribute to strategic planning, process analysis and improvement and organisational change. Its ability to analyse processes is crucial

for the managers of elite sport systems who may use process benchmarking to learn how to improve how they deliver their direct support services.

2.9.2. The benchmarking method

Several models exist in process benchmarking literature which varies mainly in how a benchmarking project is structured. Shetty (1993) distinguished between five, and Kinni (1994) identified seven distinct stages of a benchmarking project. Camp (1995) and Bemowski (1991) described the process models of twelve main steps. The differences between the models are mainly semantic as they include the same elements after a need for performance improvement was identified. These elements are categorised as problem identification, identification of comparison partners, data collection, analysis and comparison, change and evaluation and review. By following this process, it can be argued that benchmarking will reduce learning costs as it can provide detailed insight into the nature of successful organisational processes. Even though the benchmarking organisation still has to draw its conclusions from the gathered information before implementing new practices, this approach can help reduce costs of developing new management practices by benefitting from the experiences the comparison partners have already had.

2.9.3. Challenges to benchmarking

Benchmarking, however, has been subject to much critical debate. Problems and difficulties that can occur while conducting a best practice project are convincing potential comparison partners to agree to participate. Such organisations will require to reveal their competitive advantage. Also highlighted by Desouza (2003) is the phenomenon of tacit knowledge, referring to experiences of specific individuals such

as, in the case of elite sport. These talent scouts have an eye for identifying talent which cannot be measured.

Strategic challenges are more fundamental as comparison partners might not demonstrate best management practice concerning the investigated benchmarking object (Pfeffer & Sutton, 2006). Critical to this is the challenge of transferability or comparing “apples” with “pears”. In many instances’ comparison partners may have different corporate history, culture and environments, and there is, therefore, a danger that benchmarking is not a comparison of “like with like” and leads to the identification of non-transferable management practices (Fernandez et al., 2001; McGonagle & Fleming, 1993). Fernandez et al. (2001) doubt whether rules in their entirety can be successfully adopted by other organizations and noted that this is usually the case in the benchmarking of elite sport systems. Böhlke (2006) furthermore suggests that there is a lack of studies that focus on: a) what practices elite sport systems apply in the actual delivery of the support services to their athletes and coaches, b) in how far these practices are related to the success of the sport systems, c) if these practices look similar across different successful sport systems and d) if these practices provide valuable lessons for other methods to learn from.

Papaioannou (2007) suggested that as a solution, benchmarking is based on the principle of *learning* rather than the principle of *copying*, as this offers the opportunity to present new approaches for solving problems. Furthermore, approaching benchmarking as learning or lesson drawing makes it possible for managers to learn from organizations’ practises that are fundamentally different from theirs and reduces the danger of identifying non-transferable practice (Krell, 2003; Lankford, 2002).

However, benchmarking in the management of elite sport systems has come about because of copying. Policymakers and practitioners have identified services that are

perceived to contribute to the success of elite sport systems and have attempted to transfer these, often in their entirety, into other nations, organizations or cultures, and as a result, these elements and services do not guarantee success (De Bosscher et al., 2006; De Bosscher et al., 2008; Houlihan & Green, 2008).

Therefore, the appropriateness of benchmarking in the field of elite sport systems has yet to be thoroughly tested.

2.10 Summary of Chapter

The literature review raised several essential factors deemed critical to the development of effective HPS systems and emphasised:

- The importance of a coordinated approach to sports policy decision making
- That macro-, meso- and micro-level factors contribute to, and or inhibit, elite sport success (De Bosscher et al., 2015; Digel et al., 2006).
- A system of elements (financial resources, coach development, talent development and identification system, international competition) is required to succeed (De Bosscher et al., 2009; Sotiriadou & Shilbury, 2009).
- The Sports Policy factors Leading to International Sporting Success or SPLISS model was developed to address elite sport at the Olympic level and applies to other competition classes and professional or commercial sports teams such as HEI's (De Bosscher et al., 2007b).
- Comparative models all emphasised elements such as finances, talent identification systems, good coaching, excellent training facilities and sport science support as crucial elements in the successful delivery of HPS
- Strong evidence suggests that governing bodies must be careful about 'copying and pasting' best practices. Instead, increased awareness of their particular

local realities (the historical, political, organisational, financial and conceptual sports landscape they are situated in) may allow them to identify how to tailor and most sustainably develop their own HPS programs. (De Bosscher et al., 2015)

- Most systems only offer a broad description of each structural element and do not offer any information on the constituent parts of each.
- They do not explain how each may interact practically in producing elite performance, especially between the mass participation and elite performance levels.
- Higher education and its adaptation across Europe and Australia to accommodate the delivery of education to elite athletes.
- That HEI's in South Africa should recognise their niche areas and position themselves according to their strengths in the delivery of high-performance sport
- That the negative legacy of Apartheid still impacts the delivery of HPS at HDI's
- Benchmarking is based on the principle of learning rather than *copying*, as this offers the opportunity to suggest new approaches for solving problems (Papaioannou, 2007).

Concerning the aims of this thesis, the literature only guides those HPS environments operating at similar levels, such as the Olympics. Furthermore, limited research has been conducted on HPS systems at HEI's. Therefore, though the elements or critical success factors presented in the various models are probably applicable to any HPS system, it could be challenging to implement it, particularly HDI's.

The next chapter will provide a methodological approach used for data collection and data analysis of HPS best practices at HEI's and organisations in South Africa.

CHAPTER 3

METHODOLOGY

3.1. Introduction

This chapter presents the research methodology utilised to analyse HPS practices globally, specifically amongst HEI's in South Africa. The methodology can be described as applying different techniques and frameworks to conduct the research (Gratton & Jones, 2010). This chapter will attempt to explain the chosen research method and the rationale and give a detailed outline of the stages undertaken to collect, analyse and interpret the data.

3.2 Research Philosophy

Saunders et al. (2009) define research philosophy as a system of beliefs and assumptions about knowledge development. These assumptions inevitably shape how the research question is understood, the methods used and how research findings are interpreted (Crotty, 1998). For this study, in particular, the researcher hoped to answer a specific problem in HPS at HDI's in South Africa and, by doing so, attempted to develop new knowledge. The research philosophy is guided by the research problem and allows the researcher to interpret or understand the research implications. Two research philosophies have been identified: positivist and interpretivism (Drobot, 2012). The positivist approach assumes that knowledge is objective and quantifiable, and the interpretive approach is concerned with understanding the concept from the subjective experiences of individuals. The interpretive approach aims to explain subjective reasons and meaning behind a phenomenon in a social context (Drobot, 2012). Therefore, this study's philosophical assumptions come mainly from the interpretive approach. It provided the researcher

with a more significant opportunity to explore and assess which HPS best practice guidelines to suggest for HDI's through analysing and comparing HPS systems globally. To explain, Creswell (2014) believes that interpretivism emphasises words, meanings and understanding of the context. This was evident through the outcomes of the international literature review addressing successful HPS systems and the semi-structured interviews with Directors of Sport and HPS Directors of various HEI's and HPS organisations. The semi-structured interviews, in particular, whereby experiences and perceptions were shared, allowed for insights and a more comprehensive picture into what elements to consider when creating guidelines for HPS systems at HDI's. This assertion; that the interpretivism approach emphasises words, meanings and understanding of context; justifies the researcher's choice of the interpretive approach as the philosophical rationale for this study.

3.3 Research Design

Research design is an overall blueprint or a roadmap that guides researchers through all of the stages of data collection (Burns & Grove 2003). Furthermore, Gratton and Jones (2010) described research design as a systematic collection and analysis process. Research design is concerned with the structure within which research is conducted and how the collected data will be analysed (Kothari, 2004). Research design shows how all the significant parts of the research process, samples and data collection process were followed to address the research question (Creswell, 2014). This research was designed to understand the best high-performance sports practices better to create guidelines for HDI's. The study follows an exploratory research design. Exploratory research aims to provide insights into and an understanding of the researcher's problem to help develop ideas. The study's research design was

influenced by the intent to explore the best high-performance sports practices globally, particularly at South African HEI's to create guidelines for HDI's. The design is informed by two data collection methods, of which an international literature review was one, followed by semi-structured interviews.

3.3.1. Research approach

Given the research's aims and objectives, this research utilizes qualitative research methods. Qualitative research is typically characterized by adopting an explorative approach to collect data that displays human experiences (Fletcher & Arnold, 2011) and represents a group of participants who have experience in the area being studied (Flick, 2009). According to Creswell (2014), qualitative research is an inquiry process based on distinct methodological inquiry traditions that explore a social or human problem. "The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants and conducts the study in a natural setting" (Creswell, 2014, p.15). Qualitative methods can address a limitation currently associated with HPS at HDI's as rich and informative data can be collected from participants who operate within this environment, such as was evident through the answers given by the different Directors of Sport and HPS Directors took part in this study. The data collected provided a rich, descriptive account of complex human experiences and explored the multiple realities from different interpretations of the social world (Silverman, 2010; Fletcher & Arnold, 2011). "The qualitative process also enables significant amounts of data to be collected, analysed and presented as a unified picture of the phenomenon under study" (Côté et al., 1993, p.130). Choosing a qualitative method through reviewing the literature and doing semi-structured interviews with persons employed within the HEI environments provided a mechanism by which a broad exploration across the area of HPS best practices could be

conducted. Qualitative research looks at the research setting from a deep understanding with the interest being in the stories and the experiences of people in their natural environments, hence the interviews with HPS Directors and Directors of sport at HEI's and some HPS organisations in South Africa. The researcher wanted an in-depth understanding of the participants' opinions and experiences related to the HPS best practices they apply within their environments.

3.3.2. Sampling

The sampling design for this study was purposive. Paler-Calmorin and Calmorin (2007) stated that purposive sampling selects individuals as samples according to the researcher's purpose and the investigation. This includes identifying the target population, selecting the sampling procedure and the sample size.

3.3.2.1. Research population

According to Gratton and Jones (2010), the first stage of selecting a research sample is to define the research population relevant to the study. This population refers to everyone identified by the researcher based on their characteristics that are relevant to the study. The research population for this study involved HEI's and sports organisations in South Africa that run successful **HPS programs or units. They were chosen because of their consistent results at major University tournaments or the number of athletes forming part of Team South Africa at International competitions across the various codes of sport.**

3.3.2.2. Research sample

Thomas and Magilvy (2011) described a sample as a group of subjects selected from a more extensive research population. Furthermore, the authors explain that numerous aspects exist that could be observed and people who could be interviewed in the population within every study. The researcher must therefore select within the

population whom to observe or interview. According to Kumar (2019), selecting a research sample in qualitative research is guided by several considerations, such as access to potential respondents and judgement of the researcher that the respondent has knowledge or can provide relevant information about the study. For this research, the researcher purposefully selected seven Sports Directors of HEI's in South Africa, two high-performance sport directors at 2 HEI's in South Africa, two HPS directors at sports organisations in South Africa and one CEO of an NPO at an HEI in South Africa based on availability and willingness to participate in the study. The twelve participants comprised ten males and two females ranging in age from 40 to 65 years.

The inclusion criteria for the study were limited to directors of sport and high-performance sport directors at HEI's with existing HPS programs in Gauteng, North West, Western Cape and Free State, and CEOs or HPS directors at three successful sports organisations in the Western Cape. The study excluded directors of sport at HEI's that do not have existing HPS programs.

3.3.3. Data Collection

McLaughlin and Rouse (2017) describe data collection as a systematic approach to gathering and measuring information from various sources to get a complete and accurate picture of an area of interest. According to Thomas and McGilvy (2011), the researcher is the instrument in data collection in qualitative research. Qualitative research data collection methods include interviews, focus groups, observations, and study documents. Semi-structured interviews and literature reviews were selected as methods for data collection for this study.

To achieve the study's first aim, namely, to explore the best high-performance sports practices globally, the researcher used an international literature review on high-performance sport systems. The themes that emerged from the literature review were

used to structure the questions for the semi-structured interview. To achieve the second and third aims of the study, the researcher utilised semi-structured interview schedules in all discussions. Interviews vary, amongst other things, in their degree of structure. According to Bryman et al. (2008), interviews are often highly structured to reach a high validity and reliability in quantitative research. He explains that in qualitative research, interviews tend to be more flexible. Unstructured and semi-structured interviews mainly focus on the interviewee's opinion and experience, aiming to get rich and in-depth data (Bryman, 2008). Lampard and Pole (2002) believed that the semi-structured interview has the characteristics of conversations that try to deal in depth with the individual case. The semi-structured interview used for this study permitted the conversation to be about the individual opinions and experiences of the participants in a non-constraining and accessible manner. For this study, the researcher conducted online video recorded, semi-structured interviews with key informants at the selected HEI's and sports organisations. The semi-structured interviews allowed the researcher to rephrase questions and ask additional questions to clarify responses given by the research participants.

Before starting the semi-structured interviews, the questions were piloted with two individuals employed at two South African HEI's in management positions within their respective sport administration departments. As a result of the pilot study, minor changes were made to the interview questions and in line with recommendations by Gratton and Jones (2014). (See Appendix C for the interview schedule). In addition, a more comprehensive range of potential probe questions was collated during data collection for the researcher to refer to. The data collection procedure for the qualitative semi-structured interviews began by sending an email to potential participants. The email contained a brief outline of the aims of the research and what would be expected of participants (as well as a detailed participant information sheet

and informed consent form required for participation in this study). Twelve participants expressed interest to participate in the study. Interviews were initially scheduled to occur face-to-face, but due to the COVID-19 pandemic, the researcher resorted to asking participants to do virtual interviews. These were done using platforms such as Zoom™ and Google Meet™. Data collection took place conveniently in a quiet, physically comfortable and relatively private setting that allowed the interviewer and interviewee to interact without too many interferences. Before commencing each interview, the researcher adhered to the same protocol; making the same initial statements, re-clarifying the purposes of the study and spending an average of five minutes engaged in an informal conversation with the participant to establish rapport and encourage a relaxed mood. The interviewer obtained to record the interviews, after which issues related to confidentiality and anonymity were explained. Interviews lasted 45-75 minutes and were recorded on a laptop. The data was transcribed verbatim.

3.3.4. Data Analysis

Data analyses need to reflect on the exploratory nature of the study. Data collected were approached without a preconceived theoretical framework which means that analysis was done through inductive reasoning. This implies that the analysis relied on the data presented by the participants and not from any theoretical framework. The data analysis was undertaken once all interviews were completed and transcribed. Table 3.1 (p 63) shows a more structured thematic analysis approach to inductively analyse the data and present the findings (Braun & Clark, 2006). Qualitative analysis entails segmenting and reassembling the data based on the problem statement to transform the data into results (Boeije, 2010). The analysis of qualitative data aims to

discover patterns, themes and meanings. Braun and Clark (2006) outlined that the first part of the inductive process was to become familiar with the data through multiple readings of the transcribed data. The second stage was to group the data by generating codes across the whole data set. This coding procedure formed themes, and all relevant coded data were grouped and applied to each theme. Once applied, the themes were reviewed concerning the coded extracts, and a thematic map was produced.

Table 3.1 Phases of Thematic Analysis (Braun & Clark, 2006, p. 87)

Phase	Description of the process
1. Familiarising with data	Transcribing data, reading, re-reading and noting down ideas
2. Generating initial codes	Coding interesting features across data sets
3. Searching for themes	Collating codes into potential themes, gathering relevant themes
4. Reviewing themes	Checking themes against codes, generating thematic map
5. Defining and naming themes	Refining themes and overall story it tells – clear definitions for each theme
6. Producing the report	Utilising compelling extract examples and relating analysis to the research aim

This whole data analysis process was aided by using the qualitative data analysis computer program NVivo 12, which made organising and sorting the data more

accessible. Analysed data were then interpreted to explain the study's findings and make recommendations to HDI's to impact the establishment of High-Performance Units for their Institutions. Interpretation of the data was also linked to the literature review relating to HPS best practices globally.

3.4 Validity and Trustworthiness

Researchers have identified various criteria for evaluating the quality of qualitative research. By employing such strategies, researcher and practitioner confidence in qualitative research findings can be generated. According to McMillan and Schumacher (2001), validity is the degree to which the interpretations and concepts have mutual meanings between the participants and the researcher. The interview schedule was piloted with two Sports Directors at two local Universities to ensure the validity and transferability of its content. These individuals were chosen because they are part of senior management at the particular sport administration departments directly involved with strategic management decisions.

Creswell (2014) recommends multiple criteria to ensure the credibility of a study. The first criterion for this study was to clarify any bias the researcher brings to the study. The researcher developed extensive knowledge of the environment due to being employed within the sports administration department at a historically disadvantaged institution. It could perhaps shape the interpretations of the findings. It is essential to acknowledge the advantages that this level of in-depth experiential knowledge of the environment brought to the investigation. The benefits were; 1) It allowed the researcher to gain access to specific, very unique and experienced individuals, operating and have operated at the development and performance levels, that would provide the level of discussion and best reflect and explore the aims of the study, 2)

Prior knowledge of the environment allowed a level of understanding relating to job, role and position impacting positively on selecting the most unique and experienced participants who could offer exclusive insight into the area under investigation, 3) It allowed a greater degree of disclosure from interviewees due to the level of rapport and trust that could be developed.

Steps were taken to account for the data's credibility, transferability, and dependability (Guba et al., 1994; Patton, 1990). A triangulation technique (Patton, 1990) was adopted to ensure this. Cohen et al. (2007) define triangulation as using two or more data collection methods to study a particular phenomenon. Creswell (2014) furthermore stated that if themes are established based on converging several sources of data or perspectives from participants, the process can be claimed as adding to the validity of the data. Triangulation was employed through a literature review and semi-structured interviews, providing multiple sources of information from which themes were formed.

To ensure further validity, the researcher's supervisors provided external checks of the research process through peer review and debriefing and ensured that the researcher was adequately debriefed. Peer review reviews the data and research process by someone familiar with the research or explored phenomena. A peer reviewer provides support, plays devil's advocate, challenges the researcher's assumptions, pushes the researcher to the next step, and asks in-depth questions about methods and interpretations (Lincoln & Guba, 1985). This third-person approach helped to eliminate the researcher's assumptions and avoided preconceptions to transpire. Both the peer reviewers have expertise and knowledge of the subject matter of the thesis and provide quality advice and feedback.

Another strategy incorporated was a detailed, thick description to convey the findings. This enables the reader to assess the findings' degree of transferability to other settings and discuss an element of shared experiences. This procedure can also add to the validity of the findings (Tranfield et al., 2003).

3.5 Ethics Considerations

Qualitative research involves several ethical issues that the researcher must consider due to the personal nature of contact with the respondents (Kumar, 2018). He furthermore states that respondents must be informed about their privacy rights, guaranteed anonymity, and kept confidential information. In addition, principles or standards issues are critical to consider to do good for the research participant and avoid any harm (Flick, 2009). This study was conducted in line with the ethical guidelines laid out by the UWC Code of Practice for Research. The UWC Humanities and Social Science Research Ethics Committee granted ethical approval for the study before data collection (HS19/10/1). To further address the above mentioned ethical concerns or considerations related to the study, the semi-structured interviews were structured so that respondents were not required to give names or any form of identification. Therefore, pseudonyms were provided to protect their identities. The researcher informed respondents about the nature and purpose of the study before the commencement of the interviews.

In line with this, the researcher obtained informed consent in writing in the format given (Appendices A, B and D) to ensure that the interviewees have detailed information about the research and provided permission to participate (Flick, 2009). It was made clear that the study was only for academic purposes and voluntary participation. Permission to record the online interviews was also requested before each interview.

Participants were offered access to their transcribed data, permitted to change or withdraw their transcripts, and provided extra information. Video recordings and transcripts were kept on a password-protected PC accessible to only the researcher and will remain for five years after completing the study before being destroyed. All other electronic data were stored on the researcher's computer in password-protected files to which only the researcher had access. Kumar (2018) believes that sharing information about the respondent for other reasons unrelated to the research is unethical. The information, therefore, will only be accessible to the researcher and supervisors. It is hoped that all electronic data and field notes will be retained to enable a potential future broader study. However, permission for this will be explicitly requested from each participant on the consent form. The findings will be disseminated through research publications, conference proceedings, or research purposes.

3.6 Summary of Chapter

This chapter clarified the research philosophy and the research process used in this study, including the methodology and information gathering techniques, namely literature review and semi-structured interviews. It also expanded on the research sample, data collection methods and analysis of the data gathered. It discussed the study's trustworthiness and credibility and addressed the research ethics. The next chapter presents the semi-structured interviews and information generated from best HPS practices globally as discussed in the literature review.

CHAPTER 4

QUALITATIVE ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This research aimed to analyse the best high-performance sports practices, particularly at South African Universities, to create guidelines for HDI's. The previous chapter discussed the research methodology used in this study. In this chapter, the results will be presented and discussed. Data for the study was collected using semi-structured interview questions. A pre-selected theoretical framework and literature review guided these questions in the explored discipline. The presentation of the results is driven by the interpretation of the transcripts and the study's objectives. A thematic analysis was employed to analyse the data collected for this study. As a result, several themes emerged as experienced by the participants. Findings from the analysed data will be displayed in units of the predetermined framework, SPLISS (De Bosscher et al. 2006).

4.2 Participants Profiles

The participants of this study consisted of Directors of Sport and High-Performance Sports Directors at South African Higher Education Institutions, High-Performance Sports Director of a professional sports franchise and CEOs of NPOs. Participants of the study are detailed in the table below. Limited information about the participants will be revealed, and gender-neutral pseudonyms will be assigned to protect the anonymity of the participants

Table 4.1 Key Informants

PSEUDONYMS	POSITION
Charlie	CEO
Jade	Director of Sport
Jewel	HPS Director
Alex	HPS Co-ordinator
Andy	Director of Sport
Ashley	Director of Sport
Billy	Director of Sport
Blue	Director of Sport
Chris	CEO/Director of Sport
Dale	HPS Director
Francis	Director of Sport
Jesse	HPS Director

4.3 Discussion of Results

The discussion will begin with a summary of the findings through the lens of the theoretical framework, the SPLISS model (De Bosscher, 2006). This model informed the design of the interview questions. From the thematic analysis of the key-informant interviews, themes (Sustainability, Governance, Athlete attraction and Retention) as illustrated in Figure. 4.1 (p.69).



Figure 4.1 Key themes and sub-themes

4.1. Sustainability (INPUT – Pillar 1)

The Brundtland Report for the World Commission on Environment and Development introduced the term “sustainable development” based on balanced development. The report emphasizes that sustainable development is a “... development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Imperatives, 1987, p.16). The report further argues that sustainable development is “the process of people maintaining change in a balanced environment, in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations” (Imperatives, 1987, p.16). Suppose one looks at the system of HPS at higher learning institutions; this definition seems fitting; since participants in this study all agreed that

finances and good infrastructure are vital elements in making sure an HPS program flourishes.

The SPLISS study concluded that the most critical success factors influenced by policies could be distilled down to nine key areas or 'Pillars', including inputs (Pillar 1). Inputs are reflected in Pillar 1 as the financial support for sport and elite sport. Countries that invest more in (elite) sport can create more opportunities for athletes to develop their talent (De Bosscher et al., 2009). The respondents shared the same sentiment in this study. In comparison to developing countries, most developed countries could build elite training programs reasonably quickly as they had the financial infrastructures in place. The pieces are well known: Coaching, facilities, scientific support, sports medicine, psychological training, data handling, nutrition and more.

4.3.1.1. Financial Management

Any organisation requires funding to operate successfully and for an HPS Unit. The sub-theme of financial management was crucial because managers of HPS programs needed to possess the necessary skills to manage the budget properly. One way of ensuring success was generating funding and ensuring that these funds were handled correctly. Jevtić et al. (2011) define the sports industry as a new form of business that focuses on investment and is a source of profit in the industry in general. High-performance sport systems cannot function without the necessary funds required. This is an undisputed fact supported by Jade, who stated very clearly that *"if you do not have money for high-performance sports, don't waste your time"*. No matter how talented, any individual athlete will find progress difficult without the support of an organisation devoted to promoting their sport. Sotiriadou and De Bosscher (2013,

p.148) suggest that "... strategic, operational and financial planning" are essential factors.

Coupled with funding was the importance of understanding the organisation's financial systems as it directly spoke to how to plan around operational issues. This would involve the strategic management of funds and allocation of priorities, proper investment and monitoring the expenditure. A successful manager must possess knowledge, skill and talent. This argument was supported by Jade, who mentioned that *"it's important that when you decide on a vision for a high-performance environment, that as a leader you have to understand that you can't spend your money in the same way you did ten years ago. If you don't understand that, you are not helping the university, which is exactly what I did. Remember I have mentioned a growth mindset earlier, so you got to be able to change your thinking as well."*

Brown et al. (2021) is of the opinion that financial managers in sport must be aware of factors that might affect the operation of their organisation and must be proactive to protect valuable sources of revenue. Charlie confirmed this when he said that *"the level of financial management, the culture of financial management needs to be addressed over and above the funding."* Jewel added that:

"Financial management is crucial but also understanding why you need to strategically understand the competitions that you are going to compete in and next to this is the importance of planning around training programs so that ultimately you are successful." - Jewel

Therefore as much as funding was a definite requirement for an HPS program to be successful, it was more important to manage these funds strategically to ensure the program could be sustainable. Respondents agreed that appropriate financial delegation needed to be exercised and that the financial operations of the high-

performance program had to be monitored. These skill sets require sound financial and administration skills, including financial analysis and accounting experience (Sotiriadou, 2009). Having a certain level of knowledge in various fields adds credibility to a leader in any leadership position. "it enhances their capability and quality of leadership. Financial knowledge, in particular, is a strong foundation for any leader to have. In addition, the level of a person's financial proficiency is an indicator of their adaptability and resilience (Jet & Kong, 2018). These abilities and their importance to the position were unanimous themes from this study and fell in line with the international research on elite sport management.

4.3.1.2. Income Sources

It was essential to understand the different income streams to budget appropriately and explore other avenues to ensure the sustainability of the HPS program. All of the respondents relied on funding from their organisations as the primary source of income. For example, Jesse stated that *"we get finances from the University as our operational budget...and from that, we have to allocate to our HPS unit."* Billie supported this by stating that *"my high-performance sports do get a budget from the university."* Ashley, however, felt that it was essential to understand that, *"there isn't this endless amount of money, and that we have to be a lot more strategic in the decisions that we make."*

Therefore, the funding received from the organisation was not enough. There was a need to generate income by using available resources such as sports facilities, gymnasiums, accommodation spaces, and even the offering of short courses. The hiring out of facilities and hosting significant events were seen as the core income generation across many institutions. For example, at Ashley's organisation, they understood the area of sports commercialisation by *"focusing on our income that we*

generate. How do we, you know, take away the burden? So essentially, the deal that we have is capital funding focusing on specific strategic sporting projects.” Andy spoke of “hosting events as third stream income”, whilst Francis mentioned that “we also hire out our facilities and stage events or an event company wants to stage a show or something here.”

Facilities at the HEI's were a sure way of generating funding for the HPS program, but only if such resources were in good condition. As Billie stated, *“we do have good facilities at the university, and we are lucky we inherited good facilities so we can rent it out.”* Billie also mentioned that *“we are quite lucky that we have quite a big conference centre which is quite a big commercial entity for us you know that brings in a lot of money.”* Oakley and Green (2001) identified well developed elite sports facilities and infrastructure as a common characteristic in successful sport development systems. Respective Clubs also had the opportunities to host their events and generate income by charging participants a fee. At Jewel's institution, *“clubs do host their own events; for example, our hockey club has their annual camp... they have their easter hockey camp by hosting 20 schools for a week.”* Some authors (Radošević et al., 2016) believe that financing sports activities should be realised through membership fees, ticket sales, scholarships, sponsorships and donations, the sale of rights to sporting events and fundraising. The narratives from respondents attest to the thought trend of these authors.

Organisations that offered state of the art sport science support services, and had sport-specific accommodation spaces available, generated large sums of income by outsourcing their accommodation spaces for various events. As Jesse stated:

“We're fortunate in the sense that, our high-performance centre itself has accommodation available and we, we make... serious, we do, we turn over

close to 50 odd million a year through our accommodation, which allows us to plough money back into, into, the system.” - Jesse

This was supported by Ashley, who stressed the importance of accommodation for high-performance units saying that *“accommodation is the main income generator, and is the main sustainable source of income.”* Ashley alluded that high-performance sports services can be operated like a business, which speaks to sustainability. Sports evolve very fast, and competitors are always looking for a competitive advantage. Technology and sport science knowledge provided one way of staying ahead. A few respondents outsourced their “state of the art” equipment for assessment and testing purposes. They also organised sport science conferences or presented different courses to the public. As High- Performance Director Jewel stated: *the last thing I want to mention is that my HP ... with the technology that we have purchased, can also service external clients. So, let’s say a high school wants to do speed testing with their rugby team. They could phone us, and we could go out, and we could test them and charge them for a fee. We can deliver the service that we give to our students. We could also give it to the public”*

Jesse and Ashley had similar practices at the Units that they supervised. Jesse said they have decided to focus on more short course offerings, combining *“a couple of components like strength and conditioning, there is technology, there is psychology whatever, and we can sell this as an education. That money comes into the unit where we can generate some other funds.”* Technology influences how athletes train and compete, how fans engage and consume content and how world-class venues are constructed. Technology has been quietly transforming the world of sports for years and can be an added source of income if used widely.

Sponsors and donations played a vital role in filling the gaps, but only if the organisation's vision proved solid. Sponsors generally want to be associated with a winning culture or brand, and therefore it is essential to ensure that you can assure them of that. According to Jade, *“stakeholders play a key role in terms of who can donate to you, who can you bring in as sponsors and the only way you can attract sponsors and donors is if you have a solid vision to sell to them.”* Billie attributed the fact that sponsors want to be associated with a particular brand or sporting organisation as *“a sign of success”*, further stating that *“our basketball club, funny enough, was able to get a sponsor for six months or so. The money was not bad at all, you know.”* While the effort to treat sustainability with greater seriousness and urgency has become increasingly apparent in sport in recent years, the impact of this momentum on commercial sponsors cannot be overlooked either. Corporate partnerships are the financial lifeblood of sports organisations, and there is a strong business case for engaging sponsors in sustainability projects. However, respondents in this study all agreed that financing an HPS program is a costly affair that must be adequately planned.

4.3.1.3. People

This sub-theme was very highly ranked when the data was analysed. High-Performance Sport is a highly specialised field that requires experts and persons with high work ethic and passion. Not employing the right people for the positions can threaten the unit's sustainability. Francis even said that: *“High performance can go on as long as possible if the passion and drive from the drivers are there, sport managers and coaches.”* Commitment from sports administration, facilities and sport science staff were the glue that bound the unit together and was emphasised strongly by

participants. Francis's statement was supported by Jade, who specifically mentioned expertise as crucial:

"I think the main issue is around staff, the people you end up recruiting and making part of your team, and if you have these different ingredients, you need to go and unpack all of them so that when you speak of the operations of the high-performance program, you have to understand what the key ingredients are. For us, it was about getting the right expertise in there firstly." - Jade

Billie was clear about the importance of the best available human resources as he believed that the formula for *"best available office staff, managers, administrators, best available coaches"* will ultimately lead to *"best possible student-athletes to come to your university."* HPS settings involve multiple and variably motivated individuals interacting in highly changeable conditions that require individuals who can do much more than just apply general competencies to general challenges (Jones & Wallace, 2005). Many other respondents also mentioned that expertise in specific sports science fields was required to see the unit's vision materialised. When discussing the matter of sustainability, Andy said: *"over and above that, it is where we have the human resources to be able to deliver on those."* Alex argued that a multi-disciplinary team was necessary, saying that *"for high-performance sport, you must have a multi-disciplinary team that sits and discusses it."* The HPS program is serviced by many professionals and experts within specific fields, but they all have to work together to achieve the program's goals. The knowledge, skills and active involvement of different professions (head coach, sports scientists, sports manager, sports psychologist, facilities manager or any other support staff) are required to move from one phase to another. Accordingly, HPS organisations will do well to recruit, develop and retain staff that can provide a cutting-edge contribution to the unit and ensure sustainability.

Having analysed the interviews, the importance of qualified and sufficient coaches as well as administrative staff appears to be fundamental to the development of elite athletes.

4.3.2. Governance (THROUGHPUT – Pillar 2)

This primary theme examined the critical aspects of governance. Sport systems have moved beyond the mere application of sports sciences, sports administration and coaching, as a sole base for success. Rapid recognition and overwhelming evidence suggest that the new point of difference and competitive advantage for HPS systems is effective management and governance of all the processes involved (Baile & Robinson, 2007; Chelladurai, 2007; Ferkins & Van Bottenburg, 2013; Hoye & Cuskelly, 2007). The term “governance” derives from the Greek terms ‘kubernan’ and ‘kybernetes’, which mean to “steer” and “pilot” or “helmsman”, respectively (Ross & Rosenau, 1995). Today the concept of governance is widely used in public, non-profit and private sectors. It “generally refers to the means for achieving direction, control, and coordination of wholly or partially autonomous individuals or organisations on behalf of interests to which they jointly contribute” (Shilbury et al., 2013). All sports organisations, from local Clubs to national bodies, government agencies, sport service organisations and professional teams worldwide, need to be directed, controlled and regulated (Ferkins & Shilbury, 2010). After a detailed analysis of the interview, the following sub-themes and categories emerged. The categories were grouped and discussed under the sub-themes of a) roles and responsibilities, b) factors of good practice and measurement of the program.

4.3.2.1. Roles and responsibilities

Most respondents occupied the roles of Directors and were responsible for the overall management of sporting codes. This primary role involved every aspect of sports management at the institution. This included financial management, risk management, operational unit functioning, resource allocation, managing the different sports codes at various levels, and reporting on duties to their supervisors. For example, Francis said that *“I have to report to my head, and I have to do all that tasks, risk management, financial management, all that stuff that’s with the director. We have various kinds of meetings. We have constant meetings with managers, deans, etc. So that’s part of my process.”* Ashley supported this, who mentioned similar responsibilities such as:

“... management of all the different sporting codes. So, it’s financial management, infrastructure management, resource allocation management, day to day operations...”

Respondents in the study were also responsible for employing the right staff for different positions and managing most processes. Francis, as part of his portfolio *“...has a staff component to look after and that includes all the aspects of ... from the employment equity, employment salaries, advertisements, etc. all this to be done, performance management, job appraisals, job profiles, all those kinds of things. And then also one of my main objectives is the management of the financial part of the sport.”*

4.3.2.2. Factors of good practice

This key subtheme examined the primary factors identified by good governance of high-performance sports units. It generated a plethora of subthemes as outlined and expanded on below.

a) Vision and strategy

Participants in this study agreed that it was essential to implement strategic vision and guidance for their organisations. It all needed to start with vision and planning. Without this, there would be a lack of direction on the trajectory of their units. Having an idea ensured that there was a possible point in mind. This entailed answering the questions in line with the vision required to succeed in high-performance sports and athletes. When further expanding on his role, Charlie mentioned that *“I have staff that reports to me that implements the board's strategic vision”*, with Ashley also referring to *“strategic overview”* as part of his role. Whilst an HPS program does rely very heavily on funding to be sustainable, the aspect of professionalism and good team culture to drive the vision was emphasised by Chris, who said:

“You can throw as much money as you want behind something, but if you do not have the winning culture, if you do not have the professional culture, you cannot expect results. Yes, there may be... but it will not be sustainable. So, there must be a vision behind what you want to do. Who will be responsible for making sure that we're following a proper scientific plan? Who's going to be responsible for making sure that we're going to get the sufficient funding?”-

Chris

Dugalić and Lazarević (2015) pointed out that sport management is organising and managing sports or a sports organisation. Furthermore, it is characteristic of the business skills of a good manager: leadership, negotiation, and teamwork. Planning and execution were therefore vital. For the implementation of a plan, the right stakeholders were needed, and in addition to this, resources were needed. Furthermore, the right staff and personnel would be required to carry the plan out and

a detailed structure of the plan outcomes. Jewel emphasised the importance of proper planning by saying that:

“You can't sit back. You got to go out there meeting with people, seeing people, show your face, follow the plan, and that plan must be well documented. We have a plan that is documented, and that plan is only being tweaked, not changed.” - Jewel

Strong evidence (Grude et al., 2002; Fletcher & Arnold, 2011) suggests that the organisation is more likely to achieve its goals when managers perform well in the management and business sector. Furthermore, Fletcher and Wagstaff (2009) stated that managing individuals in a system impact performance, and understanding the context within which management processes take place to optimise performance is supported by Girginov (2010).

b) Context

The proper context was one of the highest-ranked factors, and it was a critical aspect since high-performance sports strategies depended on the context they operated within. There appears to be no generic blueprint for achieving sporting success. According to De Bosscher et al. (2016), whilst the essential raw ingredients of the recipe might be expected in broad terms, the combinations in which they are mixed are diverse. Much of this diversity appears to be driven by social, cultural and political factors. This is especially relevant for historically disadvantaged institutions, which, in most instances, do not have the same resources as historically white institutions. Charlie narrated that:

“I remember this simple thing... buying food. It doesn't matter what type of high-performance program you have; if people do not have food in their

tummies, they will not do it. And people who do not live where we live and who do not know the students that we deal with won't know that." - Charlie

Therefore, it was necessary to use context-based methodologies to enforce good practice. This meant that methods should revolve around the type of sports, resources available, socio-economic status of athletes, diversity and organisational culture. The

respondents also guarded against copying practices or models of successful organisations and applying them to their environments. Jesse contributed to this aspect by saying that:

"We can...you can go onto, onto Professor Google now, and you can download millions of sports strategies, and millions of business strategies and a lot of that information are really good and are amazing. The problem is I don't always know that person's context. So, I don't know the context that they operate within. I don't know the culture of their organisation. I don't know the history of the organisation. I don't know what their values look like. I don't know how the values play out in times of difficulty, and so that context is so important." - Jesse

This was further supported by Chris, who felt that *"if you copy and paste something from Australia or the Netherlands and implement it because they won...let's say, the world cup, that is where fundamentally we have been very wrong."* Therefore, when creating an HPS unit for any organisation, it was essential to understand the local context. The following categories will further elaborate on the importance of being aware of context.

c) Prioritising sporting codes

Prioritising sports codes was a pivotal factor to consider, and this was based on various criteria such as resources, type of facilities available, funding available and

media value. It was also necessary to align with value-added sporting events such as the Varsity Cup, Varsity Sports and National Olympic priority codes imperatives. Blue, for example, stated that *“the varsity sports-based their codes also by enlarging on SASCO’s priority codes”* This was substantiated by Blue, who agreed that *over and above that, you need to look at the priority codes in the country.* Other respondents highlighted criteria such as facilities and funding as stated by Chris and Ashley:

“So, within that concept... we also then had a look and said one... what type of facilities do we have available for a sporting code? Two...what type of resources are available to support that sporting code? Three... what is the exposure that that sporting code would give to the university and from that, we would re-allocate resources to that.”- Chris

“So, it is a strategic mandate, also from the university, we have to report on what it is that we are doing continuously? High performance, obviously, is where our greater resources, time, and energy go into. Obviously, that's the image and brand we're trying to uphold, which has a massive impact on the university's brand and image. Uh, so we had to be strategic with the funds.” - Ashley

The global economic downturn has invariably resulted in limited financial resources available, mainly for the sectors such as sport. In the South African context, this is compounded by a plethora of socio-economic priorities which demand immediate and greater attention and share of the public resources. Notwithstanding the need to ensure the survival and growth of all the sports played and or practised in the country, it is evident that the country cannot afford to support all of them. Therefore, it becomes vital to employ a much more focused and differentiated approach to define the codes or sports priority for South Africa. The very same principle applies to HEI’s as well as

resources are scarce and, as was the sentiment of many respondents, a “free for all” approach can simply not prevail.

d) Communication and collaboration

Just as finance and the high-performance plan were mainstays of the director’s role, so is the successful communication capability. Directors are often required to interact and build relationships with many stakeholders, i.e., senior management, internal partners, external partners, support personnel, and the athletes. By enhancing communication and building these relationships, directors can integrate and engage all areas of NGB’s (Arnold et al., 2012). Communication and collaboration were highly rated factors of good practice in this research, as stated by several respondents. This involved regular meetings and engagements with the right stakeholders to convey the message and vision of sports. Communication ensured transparency and that everyone understood what was required to meet objectives, goals, and ultimate vision. Such communication needed to be filtered down to every level. The following narratives substantiate these findings:

“Then I realised that there was no culture of collaboration and one of the things that, as directors of the sport we sometimes miss, is that we tend to live in a bubble. And one of the things that I did was that I set up regular meetings, well it was more frequent because I needed to sell our vision with Deans, Chief Directors, Senior Directors.... Everybody in different Departments.” - Jade

“I think relationships are vital. The stuff we mentioned earlier in terms of everyone involved in the program that I fully feel valued, and they fully

understand their purpose in the organisation, and they enjoy what they do.” -Dale

“Communication can make or break an organisation, and this is about frequent communication, especially if you are working on a new vision.”

- Jewel

Other than the crucial staff within the sports administration department, other role-players within and outside the organisation were essential for an HPS system's success. Maintaining healthy relationships with all internal and external role-players such as executive staff, registrar, deans, residences, and other athlete development support service providers is essential. Billie agreed that, due to the healthy relationships with and support received from the senior executive team at his organisation, *“we were able to push out commercial gyms, we were able to do all that we wanted to do, because of top management’s binding support.”*

Other respondents such as Chris supported the importance of fostering good relations with stakeholders adding that *“... in our space, where do I believe and where do I see it coming in to be the most important? It starts again at senior management. and so senior management...I'm talking about the university's executive, who says we emphasize sport at this university. So, I think it starts with the top and then put systems in place that allow for those conversations.”*

The registrar and her office, in particular, were a valuable ally to have as they dealt directly with the academic portfolio of the student-athlete. Hence, getting their support for the HPS program was crucial. Jade mentioned that *“the key ingredient in this is the registrar’s office. When one of our kids, for example, went to the junior world cup during exams, she permitted that he could write his paper overseas.”* Jewel supported this,

stating, *“we firstly established a ... we call it a recruitment and admissions advisory board and on that advisory board was the registrar.”*

Most respondents also stressed the importance of good relations between all role-players involved with the student-athletes development. For example, Jesse referred to the importance of the student-athletes holistic development, which means it *“includes the athlete support team and of course every month there are performance enhancement discussions, and in that meetings sits the Head Coaches, Sports Managers or any other support staff like the sports scientists.”*

The relationships with the Sports Science Academic Department were vital as a sport at the elite level is research-driven. Respondents in the study contributed that they had good relations with the relevant Faculty/s as sports science contributed to enhanced athletic performance. Both Francis and Andy mentioned that:

“Our biokinetics centre is situated within that department. All his students are working in our gymnasium and being used to support in the different codes goes training there. So, there they get their practical experience as well. So, the relationship between the two departments is perfect.” – Francis

“And that is something that continues and within the university itself; obviously the Faculty through the different Professors were doing a number of research to try and see what can be done to improve the performance of athletes, for example, research on injury prevention, recovery times. So, there is a relationship, but I still believe it can improve.” Andy

Participants stressed that efficiently and continually being in touch and disseminating the high-performance department’s message was necessary. In addition, internal partners to forge good relations with such as Federations, schools, junior academics,

media, and sponsors. The following two respondents mentioned that building partnerships outside of your organisation is very important.

“One obviously, federations are the actual custodians because it’s their program.” - Andy

“We interact with the university. As a provincial union in terms of your sponsors, school program, partnerships within that school program also.” – Dale

Stakeholders within the HPS system have various roles and responsibilities, whether it be initiating athlete and coach development programmes, managing facilities, promoting the programme or generating finances. Strategies are required for sustainable sports programmes, and this can only be achieved when the relevant partners work together. Based on the narratives from respondents regarding governance, it can be argued that a strategic and coordinated approach to sport system management is likely to impact sporting success positively.

e) Culture

The organisation's culture and history, or traditions, played a key role, and managers needed to be aware of the importance. Culture, simplified as “how things are done around here”, is crucial for HPS systems. (Sotiriadou & De Bosscher, 2013). As narrated by Ashley, *“in terms of your staff, are we getting the right people to drive the individual sporting programs to take it along with that culture and vision that we have of ...you know, being a leading institution?”* Therefore confirming that the way things are done matters very much. Alex supported this and believed that *a buy- into the culture becomes crucial.”*

Service delivery was viewed as a crucial aspect of the HPS Culture as it directly related to the organisation's image in terms of how things were done. Jade, for example, believed that *“the people that form part of that service delivery component, they need to continuously have the same level of drive, the understanding, the patience... So that they can continue to deliver no matter the circumstances because sometimes things change, and if challenges face you, you have developed a level of operational excellence as a team. You can therefore move through various experiences”*. Again, this shows the importance of the right human resources. No matter how detailed and solid the strategy is, projects will fail if the people executing it don't nurture the appropriate culture. Creating the right culture is vital for a leader; changing a poor culture and identifying shifts in culture are just as important. In most businesses, including high-performance sport, there is a yearly turnover in personnel and team dynamics. Elite sports organisations exist in open environments; therefore, culture is inherently changeable and dynamic (Frontiera, 2010). Suppose it is indeed a position of performance development and oversight. In that case, the responsibility of a positive and organizationally influencing culture falls squarely on the high-performance sports director or the director of sport. Therefore, management needed to be fully committed to enabling an influential workplace culture that would ensure the implementation of the HPS strategy.

4.3.3. Athlete Attraction and Retention (THROUGHPUT- Pillars 3, 4, 6-9)

The athlete attraction and retention were probably the most prominent theme as they spoke to the heart of the high-performance sport unit. This theme focused on factors that attracted athletes to the sports programmes. It also addressed the issue of how to ensure that athletes remained within the system. Many sub-themes emerged, which

overlaps with themes discussed already. If a particular category were addressed in a previous theme, it would not be addressed again.

4.3.3.1 Attraction

According to Sotiriadou and De Bosscher (2013), attraction is the process whereby sport development strategies draw new sport development segments or target groups and provide quality experiences to existing ones.

a) Talent Identification and Development

This sub-theme analysed the need for talent identification and development. Sports talent development provides athletes with a suitable learning environment to realise talent potential. Effective sports talent development in universities should encourage and support sports participation by students and staff and establish the university as a centre of excellence in sport. Respondents all felt that HPS programs needed to have talent identification and development plans. However, most did not have formalised plans. It was generally assumed that it was the coach's responsibility to recruit. Jade narrated that *“our coaches are the ones that are responsible for connecting with our community, to go out scouting, to be able to assess someone, to build relationships with the school’s coaches, to give them information and to build their scouting networks.”*

Identifying talent for an HPS program at HEI’s was a more complex situation as the academic performance at the high school level was a significant consideration. There was a strong feeling that coach education in this regard was important. It was not helpful to recruit an athlete who would not be accepted at the tertiary level due to not meeting the academic requirements. According to Williams and Reilly (2000), players

should be provided with a suitable learning and training environment so that they have the opportunity to realise their potential. Respondents in the study believed that alignment with the university's academic program needed to be considered as recruited athletes required to be successful in their studies. Peter mentioned that *“you can look at the raw talent of the individual, and you can look at their academic compatibility with the university because you are at an institution.”* Jade supported the academic imperative by saying that, *“you can have all these achievements but, if your students leave the university and he/she did not get a degree, then you have failed the system.”* Billie mentioned that *“in terms of talent ID and recruitment, there needs to be some, there needs to be an alignment with our universities.* Additionally, McClymont (as cited in Russell et al., 2005) emphasises that there must be a solid commitment to high-quality coaching and quality education to attain high-level performance.

Many respondents also felt that talent identification needed to happen at an early age, and therefore partnerships with schools, junior programs and the federations were meaningful. The following narratives from Jewel and Andy supported this argument.

“The next layer would be our various school programs, and many of our universities go to these National tournaments, and they go and identify talent, but we identify this talent too late. If we don't identify the talent when the kid is in grade 9, we have already lost that kid. Cause it is in grade 9 that they make their subject choices and if they don't have the right subject choices for a specific degree then they cannot access further education, and the kid is lost.”

– Jewel

“And it is my opinion and belief that when we recruit athletes, we should recruit them at about grade 9 and 10. Don't start recruiting at matric...you're wasting your time. I believe that partnerships are key in the talent identification story.” –

Andy

There are many examples from the literature supporting early detection and talent support. A study by Fernandez-Rio and Mendez-Gimenez (2012) found that despite the enormous number of youngsters enrolled in physical activity classes early, many talented athletes are being ignored due to a secondary structure for talent identification. It was essential to be strategic about recruitment and talent identification as one constantly had to be mindful that students enter and exit once they graduate. Blue mentioned that *“you obviously target recruitment for your sport codes, where for example; you know in your first team netball, you've got 20 girls that are capable of playing at a certain level, and next year you need to recruit 6 or 7 because they're finishing, there is a space, there is a strategy in terms of how we go about doing it.”*

There was consensus that a more systematic approach was required for this particular aspect of the HPS program. The process of talent identification should detect factors affecting performance in competitive sport and predict the potential of future performance (Crespo & McInerney, 2006). Furthermore, the authors observed that although coaches, managers and parents widely practice talent identification, it is based on instinct and experience, but little support comes from science. Talent identification, when doing so for HEI's, needed to go hand in hand with an academic sound record as, after all, the priority of any higher learning institution is academics.

b) Academics, culture and brand of the organisation

Higher Education Institutions, by nature, are academically inclined. The core business is and will always be academics. It is, therefore, no surprise that respondents listed

this as an essential attribute. Inevitably, students were attracted to the institutions due to the academic offering. In the competitive environment of university settings, student satisfaction is a vital research topic. Students graduating with a high level of satisfaction are a source of positive endorsements for universities. Chris noted that the quality of education at an educational institution is a deciding factor for high-profile student-athletes as well, *“because that can make or break whether or not a person considers coming to our institution. You know the employability or things like that of a student.”* Both Jade and Billie supported this narrative. Jade, at their institution, wanted to understand why student-athletes chose the institution, and according to Jade, the *“majority of the students did not indicate sport by the way. It was because of the academic status of the institution.”* Billie also reported that *“it’s the academic offering that’s going to be first and foremost...”* The importance, therefore, of building a good brand was highly ranked. Its historical context, reputation, competitions, and athletics performance history became essential factors for potential student-athletes wishing to pursue academics and a sporting career. Institutions with a reputation for producing winning performances generally attract talented athletes. Good quality education and services would generally attract top athletes. Respondents had the following to say about the importance of culture and a good brand:

“What’s important for this university, that we decided on, way back then, is we need to build a reputable brand, and we need to come up with something that we can associate with. So, when we talk about the stripe generation, when we talk about elevating to greatness, those are the things that every single one of our students understands. You are part of earning you...you don’t get your stripes, you earn your stripes. And that is what we have pushed through with our students so that people who want to come here. If you don’t want to earn

your stripes and you coming out to try and make money, we don't want you.”-

Chris

“ I think a brand is important to make sure that there's awareness, and where that awareness is, obviously the quality that we provide, and when we speak about the quality.” - Ashley

“So, a good high-performance culture will draw an athlete. With information being available at your fingertips nowadays, students can go and read about us, read about us, you know, just have an in-depth understanding of what happens in institutions. So I think having a good sports tradition and culture do attract future student-athletes to the university.” -Jewel

Competition in the higher education sector intensifies (Berry & Cassidy, 2013). A key strategy for universities to manoeuvre a challenging competitive environment is to create a distinct brand image for themselves. A unique brand image can positively influence their reputation, which can significantly influence the student's experience at the university (Berry, 2000). HEI's with good academic and sporting excellence reputations are highly appealing to prospective students. Therefore, a sound reputation and a good brand image enhance student satisfaction, which leads to word of mouth and brand loyalty.

c) Successful programs and the Coach

Successful sport programmes can increase the profile of the sports department and therefore stimulate the involvement of other stakeholders such as participants, sponsors, and the media. A good example is when participants of successful programs win gold medals at national or international competitions. Chris can attest to it when he stated that *“people want to go where there are, you know, successful programs. And I'll give you a perfect example of that. We had about when we won the gold medal*

at the Olympic Games for rowing... the awesome foursome. ... January that next year, we had about 40 applicants that wanted to join the Club.”

Francis substantiated this by highlighting the importance of media coverage to showcase talent. He believed that *“students want to know; will people see me playing? What I mean by that, will the provincial team or national team see me playing? So the student wants the opportunity to showcase their talent.”* Coaches ranked highly in athletes deciding which institution to choose and supporting all the participants. Andy stated that:

“It is having outstanding people in the sporting space that aren't only quality coaches that can develop their playing ability on the field, but also offer mentorship and advice and almost serve as a father and mother away from the field.” - Andy

This was further supported by Jewel, who said that athletes are drawn to successful coaches and that the particular coach of that institution influences their choice of institution:

“I think head coaches play a significant role. We have got more and more students wanting to know who the coach is. If I am going to be coached, who is that person because coaches are important? They are becoming more and more and more important because that is the guy or the woman that is going to make me better at my sport”. - Jewel

The brand of the Head Coach, his reputation and his track record, according to the respondents, do influence a potential athlete's choice of institution. This is supported by De Bosscher et al. (2006), who argued that athletes widely accept access to world-class coaching as the most critical support service that they receive.

d) Infrastructure and facilities

Elite sports facilities and infrastructure has been identified as one of the top characteristics commonly found in high-performance sports development systems. Well-planned and designed sport-specific facilities are essential in supporting an organization's development goals (Oakley & Green, 2001). Advanced and high-quality infrastructure and facilities attract top athletes to an institution. To this end, Ashley confirmed the statement by adding :

“I'd definitely say that facilities play a large role in that. If we look at our facilities and our infrastructure, we try to make sure that we have a high standard and calibre of infrastructure that obviously provides opportunity, not only from providing access to our students, but also providing opportunity for external sources or, or third parties.” - Ashley

Billie added to this, saying that *“our High-Performance Centre, the beautiful commercial gym we have on campus for 5000 members.... as a result of that, you know how we can recruit a lot of high-performance athletes.”*

4.3.3.1 Retention

Retaining athletes aim to focus on the most talented and help them obtain the necessary skills to achieve high-performance standards by adopting various strategies. These strategies include, amongst others, coaching, academic support and training facilities. These factors can be grouped as athlete support and are the foundation/building blocks of an HPS program.

a. Coaching

Athletes widely accept access to world-class coaching as the most critical support service (De Bosscher et al., 2007). This finding is confirmed by Green and Houlihan's study, which stated that: “There is an acceptance of coaching as an important, if not

essential, ingredient in elite success” (Green & Houlihan, 2005, p.175). The respondents in this study mentioned that the HPS staff was crucial to the program's success on numerous occasions. The coach is arguably the most vital member of the HPS staff and impacts the retention of athletes. These days, many businesses use competency frameworks when selecting or training their staff (Adefe et al., 2019). Coaching is no different in the high-performance sport environment. Many of the respondents raise several criteria for coaches before hiring them, such as culture and passion. Jade mentioned that “*we definitely look for people that can fit into a team culture and that you can, to an extent, extract in your interview with them.*” Ashley supported this by adding that “*it's critical that, when we look at individuals, they will be able to adapt to our environment and our culture.*” HEI's specifically had academics as core business, but the priority for a coach is to make sure the team wins matches and tournaments. Respondents felt that choosing coaches who understand the university environment was vital. Andy made it clear that it was necessary “*to ensure that the people we bring are the people that share the same vision as the institution.*”

Coaches who had a real passion for what they do and who showed a growth mindset were crucial for the success of an HPS program. The respondents valued these characteristics even above qualifications. Francis supported this stating “*the first thing that I'm looking for is passion then I will look into the qualifications and the experiences and the results of the coach.*” Andy confirmed this argument, adding that “*the most important thing is the passion for this code that you need to coach and also your vision. What is it that you want to achieve? Because I would actually prefer to employ a coach that is ambitious than to employ one who has the credentials but has no ambition.*”

While respondents agreed that passion is crucial for successful coaching, they also agreed that technical qualifications, experience and academic qualifications were also

an advantage... Alex, for example, relayed it as follows... *and secondly, also an added benefit nowadays is an academic qualification such as one in the sport sciences.*"

Jewel was in support of Alex's notion that educational qualifications are essential. Jewel specified that *"you definitely need some kind of acknowledgement or education qualifications. Then there is also the recognition of prior learning that you can also build in, which is also very valuable."*

Coaches work with tertiary education students, some of whom have a degree already and therefore are knowledgeable and competent in specific skill sets already. Coaches who do not have the appropriate levels of qualifications may consequently not receive the desired respect from athletes. Coaches who had years of experience in their fields were also highly regarded. As Blue stated, *"we looking for people that have the experience and the expertise in a particular sport code."* This was supported by Dale, who said that *"rugby experience and rugby knowledge and the sort of more, academic side of things, because I think it leads to a well-balanced individual who can do you know, your time management is good, you know, is professional you know, I think is, is critical."* In countries like France and Australia, coaches must be qualified and certified at all sports clubs. The quality and quantity of coaches essential factors at each level of sport development.

The experience was an essential criterion when employing Head Coaches for the respective codes of the HPS program. Having exposure to university background was crucial for many HEI Directors of Sport when hiring coaches. This was because the tertiary environment was unique, and the student and their academic life was the primary factor. It was essential to understand that university was primarily an educational institution and that balance was needed. The institution was different from a professional sports club as it focused on developing young student-athletes, which

needed to be understood in apparent terms. Charlie described that coaches “*needed to have some university background so that they understand the life of a student and first for me, would be if I have somebody that comes through my program as a scholarship holder.*” Charlie further adds that “*they need to understand the importance of education, they need to be flexible as far as that is concerned, and they must assist us with rearranging practices.*” This was supported by Ashley, stating that:

“I’ll definitely say I think, you know, an understanding of our environment. And our university is also critical because understanding an academic environment versus a high-performance environment is important. So if someone had to come from a rugby background, a Lions rugby union versus a tertiary institution are two totally different things. So they have to have some form of academic background; academic understanding, I think, is really critical. And, and I think by doing that, you know, it makes them successful in our environment. And also, we know that they’re a good match for us. So I definitely say that that would be aspects that would add to what we select on.” - Ashley

Blue firmly believed that understanding the tertiary environment was very important. Blue explained that “*I just think that if you don’t have experience with students, I don’t think you can work with students. I have seen it. I have seen it in my life. Many times.*” When the participants in the study were questioned about professional development for Coaches, all of them agreed that it was imperative to provide that support to coaches. Sport evolves all the time, and it is essential to stay abreast. They, therefore, made sure that Coaches attended conferences and workshops to build on existing knowledge. Francis believed that “*the best coach will pick up something new at every clinic or course that he will attend.*” In addition, though, Blue made sure that coaches of the HPS program attended elite sports conferences where they would be able to

engage and interact with the best brains of HPS in the world by *“taking that level of coach down to the Elite Sports Summit down in Cape Town.”*

Both Jade and Jesse mentioned that they have a lot of internal courses that they offer to their coaches that contribute to their personal development. According to Jesse, his organisation have been running internal workshops and annual coaches workshops. At Jade's institution, they started a *“workshop program with our Head Coaches where we bring people in and they make representation, and that forms part of their personal development. They also have an opportunity to develop through courses offered within the University set-up.”* Blue further added to the importance of coach development, stating:

“We always, with certain amounts of money from funds raised, send a particular coach on an overseas experience, all of which creates an incredible environment where coaches are constantly wanting to better themselves.” - Blue

Participants in this study agreed that coaches form an integral part of the HPS system. In particular, HEI's employing coaches that fit well within the system needs to be carefully considered. In addition, the priority for student-athletes should be their academics and not just winning competitions, which many coaches see as their priority.

b) Sport Science Support

Sotiriadou and De Bosscher (2013) defined sports science as the scientific disciplines used in performance development such as physiology, biomechanics, performance analysis, skill acquisition, decision making, nutrition, recovery, and strength and conditioning. Respondents in the study all supported the narrative that the above

scientific disciplines are crucial for the success of an HPS program, as noted by Blue and Ashley:

“having a physio service, a bio service and medical service, a high-performance gym, plus a commercial gym.” - Blue

“...just coming back to sports science has become something that we've integrated a lot more.” - Ashley

Food and nutrition were another critical aspects. Athletes could not perform on empty stomachs or did not have a properly balanced diet. Therefore, providing necessary nutrition and creating awareness of nutrition was pertinent. Some athletes do not have the required funds to afford proper meals, and in some instances, this service was provided to athletes. For example, Andy stated that *“you would have students that are struggling financially. Some of our students don't even have meals. So we would have to organise meal support for them. As an institution, we have a meal support system. A number of our students benefit through that.”* This was supported by Dale stating that *“its access to the basic fundamental things and putting that on the table and then the support of nutrition....”*

Mental support for HPS athletes was also regarded as an essential aspect. Jesse said that it could be *“a huge game changer and that's now being... that...that sort of... one month period of having three sessions with the sports psychologist, has helped us develop the culture of the women's hockey squad for the last three years.”* Alex added that *“you need to clear the mindset to make sure you are going forward.”* Charlie reported that having a flagging system could help identify athletes that need mental well-being support:

“ If there is anything red flagged there, we need to provide access to the psychologist or any of the participants. I think mental skills and well-being is as important as any of the other skills.” - Charlie

Since the mid-1980s, high-performance sport evolved from athlete–coach relationships to encompass an increasingly complex support staff team (Sotiriadou & De Bosscher, 2018). The staff consisted of those with expertise in sciences associated with sport development, including tactical and technique specialists, strength and conditioning coaches, and doctors. Therefore, the literature supports what the respondents in this study have mentioned concerning sports science support.

c) Academic Support

Academic support was seen as very important as athletes could not neglect their studies due to sporting commitments. Whilst there were some measures in place at the institutions, there was a lack of policy in this regard. Student-athletes who participate in high-performance competitions have hectic athletic schedules, affecting their academic careers. Coordinating education and high-performance sport is a pressing issue in the university domain. For this reason, appropriate support by universities for high-performance athletes also constitutes an integral contribution to the assurance of high-level performances. (Digel et al., 2006). Exceptional support and assistance when combining regular training and academic commitments were implemented in various ways by the universities.

The academic support started with guiding prospective athletes regarding their courses and modules. Blue highlighted the importance of helping new first years adjust to the demanding academic and athletic commitments. He suggested that *“instead of attending lectures for five modules, you attend lectures for two or three modules, you pass all of those modules helluva well, and you're able to balance your academics and*

your sports.” Jade also supported this thought by adding that academic support is essential and that student-athletes must be tracked to be aware of their progress:

“Very crucial to the success of this story is that you have a real focus on the monitoring of the data of your student-athletes. And that means that every year we have what we call inductions, and we take all the information from, where they come from, what year they are, etc. That is the one part of the information, and we track every subject they do. Whether it is a semester course or a year course, we track all of that per sporting code, and we monitor that after every three months or after every test or after every exam and then review our graduation results. We work on two things, the first is graduation within what ... so academic successes are always a question.” – Jade

However, respondents admitted that, although some informal agreements were in place regarding how student-athletes were supported, this did not translate to policy. Hence, the need for an academic support policy that addresses issues relating to absence from classes and exams due to national or international competitions, extended degree programs and online assessments, as a necessity. Chris mentioned that *“we have got a letter that gets submitted, completed and then sent through to the lecturer and the Dean of the faculty.”* Blue commented that there was an agreement with the academic side which *“provided flexibility for sport and our student-athletes.”* He furthermore believed that when a student-athlete participated internationally regularly, *“we can’t give her her full academic load.”* According to Digel et al. (2006), regions of France offer high-performance athletes support with their academic program and certain benefits. These benefits differ from university to university. Some universities reserve a certain number of study places for high-performance athletes, and other universities, for example, make an extension of courses possible or offer

flexible exam dates. (Digel, et.al., 2006). This would be in line with some of the points mentioned by respondents in this study. Such arrangements, however, would only be possible if there were good relations between the HPS Unit and the Academic partners such as the Registrar, Deans and Senior Management of an institution.

Charlie stated that:

“ It is making sure that everybody is on the same page, and it is actually getting the decision-makers such as Faculty Heads and Sports Administration in the same space.” - Charlie

This was supported by Blue, who seemed to build good relations with his Academic partners:

“ From an academic support perspective, we had full buy-in from the senior executive team. But I'm sure I don't have to tell you this, everything is about relationships.” - Blue

There were policies in place, there was a need to revise them to be more student-athlete friendly. For example, jade said, *“there was a need for us to amend the policy,”*

This was supported by Charlie, who stated that:

“We need a clearly defined policy, and we need to revisit that policy. Because we need to review it every year, it needs to be revisited and properly implemented. Then we need to have a flexible approach as there is a difference between being a first-year university athlete and somebody that is in the mix playing for the Stormers professional sport.”- Charlie

Academic support policies were an essential part of an HPS program as athletes competing at this level have demanding athletic schedules that must be balanced with their academic commitments. HEI sports teams and athletes that perform very well

raise the profile of such institutions and, therefore, a need for policies to protect the student-athlete when they are absent from their academic commitments due to high-level sports participation.

d) Training facilities

Insufficient infrastructure can restrict sport participation (Atkinson et al., 2005). For athletes to develop correctly and reach their full potential, resources and facilities were required. Such facilities included gyms, well-maintained code-specific facilities, sports clinics to treat injuries, research-related purposes, and technological support such as GPS systems. Medical personnel and the coaching staff to regulate such development were already mentioned. Respondents stressed the importance of various resources to support athlete development.

“That your infrastructure is key and if I mean resources. As I said, if you don’t have money, you can’t have a successful high-performance program, and here I’m talking about facilities, staff, technology, all the resources attached to the high-performance program, and for me, these are key and of course, within the resources sits your medicine and sport science.” - Jade

“And let’s call it to sports science-related aspects. So we have a combination of a dedicated gym for our elite athletes, and obviously, then a dedicated space for sports science with a lab and Biokinetics lab, etc. So those become part of obviously, let’s call it the basic services that we see as critical.” - Ashley

“But also then the actual physical resources that you can provide these people to do their work is essential, you know, you know nowadays for us, you know, a GPS system like I said, a technical analysis system and an athlete management or monitoring system are critical for us.” - Dale

Elite sports facilities and infrastructure have been identified as one of the top characteristics commonly found in high-performance sports development systems. Well-planned and designed sport-specific facilities are essential in supporting an organisation's development goals (Oakley & Green, 2001). HPS systems are complex, and as already narrated by the respondents, cannot have a “one size fit all approach.” Respondents have mentioned all the elements they regarded as essential parts. However, another crucial part of HPS was competition. Athletes needed to compete to improve. Athletes were also attracted to systems that would allow them to compete as it is only by competing that they would be able to display their abilities. Therefore, competition structures were a vital sub-theme that needed to be addressed.

e) Competition Structure

High-performance sport management provides performance-impacting services, competitive analysis, training, and competition support. A hallmark of the International high-performance management model is offering competitions, selecting events, and the athletes who will compete at them (Rees et al., 2016). Competitions, events, and tournaments are vital stepping stones and pathways to elite sports development, as the respondents in this study attested to.

f) Level of Competitions

HPS athletes compete at the highest levels both nationally and internationally. For most HEI's this meant tertiary provincial and national competitions such as University Sport South Africa (USSA) tournaments and Varsity Cup and Sports events. There was much prestige associated with winning such competitions, and institutions were willing to invest in preparing their athletes and teams. Competitions, events, and tournaments are vital stepping stones and pathways to elite sports levels. The participants of this study mentioned that their institutions participate in “*Varsity Cup*

Rugby and Varsity Sports, so all of our codes compete at Varsity Sports.” This was narrated by Jade and confirmed by Debs, who said that “the first side is also in the varsity cup as well and they qualified for the varsity sports”. Tim added that “if you go to Varsity Football, there are 20 teams that can win it. This year we finished 5th. The team we beat in the first round we were lucky to beat. We beat them 4-3, scoring two in injury time. That team was relegated to the B division. So, it is unbelievably competitive. Varsity Sports competition.”

Blue meant that the HPS athletes “would obviously take part in their local, provincial leagues.” Andy also mentioned that “students will be selected into the Provincial teams.” Ashley elaborated that many students participate in the provincial federation set-ups, “anywhere between 70 to even sometimes 99% of the provincial teams are made up of our students.” In addition, quite a number of these athletes also compete at the international level:

“Then we start going international and international, a lot of our students do end up on the international platform.” - Ashley

“For the past two years, the boys and girls in rugby sevens have gone to France to play tournaments there, and probably that is why we were able to beat others in the Varsity 7’s final, because of the exposure they got at international level.”

– Debs

There was also the World Student Games which is the pinnacle of high-performance student sport. Francis mentioned that “the biggest opportunity for university students was to either be selected for the provincial team in a specific sporting code or the USSA part of it for the CUCSA games, or the World Student Games.” All of the participants in the study had athletes who participated internationally depending on the particular code and even.

“Some of our students are currently competing on the world stage virtually in chest competitions.” - Jade

“We have athletes competing in World University competitions like the World student Games, and we usually pay for the costs relating to that.” - Andy

Competition, both at national and international levels, is an essential factor in the development of athletes (Crespo et al., 2006; Green and Houlihan, 2005), and it allows for both athletes and the organisation to measure against rivals.

Furthermore, this sub-theme addressed athlete support services and funding required to attend the various competitions. Respondents agreed that the athlete support services such as the physio, strength and conditioning coach, and the match analyst had to tour the teams and the coaching staff. The following two narratives from Jewel and Ashley addressed this aspect:

“In this instance, the head coaches speak to the HP manager about what kind of support they need, whether an analyst. We always have the Biokineticist.. sorry, the strength and conditioning coach is a must. So, they travel with the team, the physiotherapist, coach and assistant coach, in some instances the assistant coach teams up as an analyst, the sport manager as well as the team manager.” - Jade

“But there will be video analysts that go with it, and there will be sports scientists that will be physiotherapists that go with depending on the nature of the sport, even Biokineticists that will go with those events.” - Ashley

There needed to be diligent planning for competitions. Coupled with this was adequate and reliable logistics. This entailed transportation, accommodation, and ensuring athletes' needs were seen. Alex stated that: *“the environment must be ideal, they must*

not go into a situation where it's hostile. For instance, they don't even know where they will sleep. They don't even know where they are going to get a meal. So the fundamentals must be managed for the athlete to participate free of worry. So to only focus on what they must do and not focus on external things.” This narrative was supported by many other respondents, such as Jade, who agreed that *“there's lots of planning that takes place beforehand. Because if those operational things are not in place – I mean you can get to the court and the athlete's headspace, for example, is not right because there was an incident on the bus or there was a food issue.”*

At the high-performance level, directors are heavily involved in organising training camps, workshops, events, and the annual training calendar for athletes (Sotiriadou, 2013). These duties may include logistics (travel and accommodations), coordination with local event management, and procurement of essential support services while away from home. On the question of measuring the success of the HPS program, the participants stated that the success of a program is not necessarily measured against winning. Perhaps more critical was progression and some evidence that development has taken place.

4.3.4. Measuring the Program (OUTPUT – Pillar 5)

Leadership and management occur in a high-performance environment to ensure a positive team and athlete culture, teamwork, and success (Sotiriadou, 2013).

Traditionally the emphasis has been easily measured outcomes like success and finances over processes and strategy, requiring leaders and managers to become skilled in the path to success instead of end-result focused (Hill, 2021). What does success mean? Performance should not be measured solely by the number of medals won as supported by the participants in this study.

The key subtheme of Measurement dealt with evaluating the success of the HPS program. Participants shared their views on what they regarded as a success, and whilst winning was undoubtedly one of them, it was not the main factor. As Andy explained:

“The ability to produce national and international athletes and the ability of the institution to win competitions. For me, progress is significant. For me, as an example, our netball was successful. They did not win many games, but there was progress and growth from where they were. You see, at times when you attach results to a program, it becomes a problem.” - Andy

Francis supported this, who felt that *“you cannot always win. A win is also making you qualify for varsity sports or varsity cup. Maybe you can come 8th, that is also winning. In athletics, you can run or jump or whatever your personal best, but you did not make the final; that’s also winning. So, winning is more than just having the gold medal.”*

Chris measured the success of the program by *“watching how people look when they lose. If a team loses and looks OK with it, then I wonder how important it really was to them. Um, when a team loses, and even if it’s, a so-called, supposed to be an easier game, that they, you know... how do they respond in the loss and the winnings.”*

Evaluations and feedback in surveys and other feedback mechanisms were helpful. This feedback from athletes and related persons could provide ways for the department to measure existing performance and areas for improvement. Both Jewel and Ashley, for example, stated that:

“ I think if we change, not necessarily change but improve our results, so we measure a lot, we test a lot, every single year we review how we can do things better, etc. So that’s kind of how we measure it, and I think, for me, a crucial

part is also to measure and to be aware of our staff telling us that there is no other job in the world that they want.” - Jewel

“What we think works for us will be largely based and obviously electronic questionnaires are, and it gets fed to everybody in the whole department. And so that could be from students all the way through to coaching staff through to management through to senior management. So we have, obviously, if I can call it a full overview, but also obviously full introspection on each section within the department.” - Ashley

However, HPS is about performance, and therefore, this is a substantial measure. Respondents admitted that achieving top sports in competitions was a determining factor in measuring the program's success. Jade stated that her organisation had definite performance outcomes expectations such as *“to be in the top three of all our competitions”*. This was echoed by Ashley, who said that *“we are very goal-oriented and very performance-driven.”* John also measured the success of their program based on *“the representation of our individual student-athletes, coaches and sport science staff that might make national team levels.”*

The other yardsticks by which the respondents also measured the success of their programs was by way of media coverage. The more the institution appeared in the media regarding its sports, the more it implied the success of its programs. Billie concluded that. *“I judge it on media exposure. What people write about you in the media is quite important. That’s also very important how you judge your successes.”* Respondents also added that many had performance agreements with HPS staff, especially with coaches. The respondents, as part of their job descriptions, also signed performance agreements with their organisations as argued by Chris and Blue:

“40% of my job description and my KPA’s is, is winning. So if you put that onus on the boss, to deliver; he’s gotta be forward-thinking, they gotta have good generals behind them to make sure that they’re following what, what, we’ve all agreed is the way forward.” – Chris

“ The strategy for selecting high-performance sport codes is underpinned by the performance agreements for both the Sports Manager and the coach. So it’s interlinked if that makes sense.” – Blue

Respondents agreed that it would not be fair to restrict performance measurement solely to the number of trophies or medals won. Although these were valid performance measures and are the most commonly used ones, they are not the only determinants of a successful program. Input-throughput-output models, such as the SPLISS model, are well known in strategic management literature. However, with the advent of total quality management (TQM), statistical process control Deming and Edwards (1982) and the balanced scorecard (Kaplan & Norton, 1996), the emphasis on strategic management has shifted away from output measures (such as success) and input measures (such as financial resources) to standards of processes and strategy (Neely et al., 2005).

Performance and success are much larger than wins and losses, medal count, or championships. Along with developing a long-term strategic plan, establishing a process, and monitoring outcomes daily, high-performance management must 1) recognize different approaches to the meaning of success in elite sport, 2) identify both the relative strengths and weaknesses of performance measurements in elite sport, 3) propose appropriate methods of measuring elite sport success in different contexts, 4) interpret and communicate data on performance in elite sport, and 5) understand their high-performance setting's competitive reality to establish

appropriate goals and objectives, policies, strategy, and plans (De Bosscher et al., 2013)

Successful performance means different things to different organizations. With honest assessment and appreciation of current performance standings in which the sport management model operates, a proper performance enhancement environment can be established (Shibli et al., 2013).

4.4 Summary of Chapter

The qualitative analysis has generated the following key themes:

- Sustainability
- Governance
- Attraction and Retention
- **Measuring the program**

Each of these themes, in turn, were informed by a plethora of sub-themes which highlighted the following applicable practices for HPS managers:

- Funding support and understanding financial management
- Good relations with relevant stakeholders
- Specialised HPS facilities
- Event planning and hosting
- Talent identification strategies and development pathways
- Comprehensive Sport Science support
- Coach education and support
- Athlete support services to attract and retain top student-athletes
- Academic support for student-athletes

- Monitoring and evaluation

Improving an athlete or team's ability to succeed is essential for high-performance professionals. Still, it is not the sole focus of a high-performance model or its leadership. The complicated nature of coordinating elite performance involves much more than utilizing the latest technology to track an athlete's every action or providing a plethora of sport science resources to examine daily habits. High-performance management is also about developing a vision, managing operations, directing people, and creating a culture that fosters effective communication (Fletcher & Arnold, 2011). To conclude, at the select end of the spectrum, high-performance sport professionals must identify and disseminate their vision, optimize resources, challenge and support staff and athletes, and create group cohesion through a culture's development. The next chapter summarises the findings discussed, draws conclusions, and presents further research and practice recommendations.

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

High-performance sport management is a growing sub-category within the sport management field. This approach focuses on the unique blend of management, leadership, and performance development expected for the elite levels of sport competition. This research study aimed to explore High-Performance Sport management practices globally and specifically amongst higher education institutions in South Africa to develop guidelines for HDI's. The study followed a qualitative research approach to achieve a detailed data description by acquiring the participants' thoughts, feelings, and perceptions of the theoretical framework identified previously. The SPLISS model was used to guide the investigation through interviews with key informants to collect the necessary data for the study. This high-performance model affirmed the critical importance of assessing and continually improving organisational capabilities in developing competitive advantages (Truyens et al., 2014). Recent research into this area, along with the data from this study, has provided the following essential elements that represent best practices for high-performance sport systems: (1) sustainability; (2) governance; (3) athlete attraction and retention;(4) measuring the program.

This study aimed to analyse the best high-performance practices globally and locally to create guidelines for HDI's. To achieve these aims, the researcher identified the following objectives in Chapter One;

- a) To identify best high-performance sport management practices through an extensive international literature review on high-performance sports models.
- b) To explore best high-performance sport management practices at Universities and sports organisations with high-performance sport systems in South Africa.
- b) To develop guidelines for best high-performance sport management practice at historically disadvantaged institutions.

The research findings were presented and discussed in Chapter Four. An overall summary and recommendations will now be offered.

5.2 Summary of the findings

In this explorative study, semi-structured interviews were held with directors of sport and high-performance directors at higher education institutions in South Africa and two NPO's in the Western Cape. The findings below are presented and arranged according to De Bosscher et al. (2006), which advised this study. The sections below are summaries of the findings in the previous chapter, which will be further discussed by addressing the perspectives of participants and best practices that arise through the literature review. Within high-performance sport management, international researchers developed a model that front offices and high-performance directors could use to compare and scale other high-performance departments in elite sport to measure the organisation's performances and evaluate their program's effectiveness (De Bosscher et al., 2011). The Sports Policy factors Leading to International Sporting Success or SPLISS model was developed to address elite sport at the Olympic level and apply to other competition classes and professional or commercial sports teams (De Bosscher et al., 2007b). The added value of this modelling approach to high-performance departments was the overall organisational structure's findings

(Sotariadou & Shilbury, 2009), the relationship between the organisation's internal characteristics, and the effect of resources on performance (Helfat & Peteraf, 2003). This high-performance model affirmed the critical importance of assessing and continually improving organisational capabilities in developing competitive advantages (Truyens et al., 2014). Recent research into this area, along with the data from this study, has provided the following elements deemed best practices when creating high-performance sport units at HDI's.

5.2.1. Sustainability

For a high-performance program to be sustainable, the following critical elements were highlighted by respondents in this study.

5.2.1.1. Financial management and support

All respondents were clear on the importance of funding because financial support and funding provide resources and opportunities to win in elite sport. "It is an undisputed fact that countries that invest more in elite sport can create better opportunities for athletes to train under ideal circumstances and thus improve their chances of success" (De Bosscher et al., 2013, p. 49). Internationally, success in elite sports correlates with the amount of money provided to an elite amateur organisation. Participants felt that money spent on facilities and athlete support improves results and increases mass sport participation due to the organisation's success in high-level competitions locally and internationally. Coupled with funding, participants also stressed the importance of understanding the organisation's financial systems as it directly spoke to how to plan around operational issues. This would involve the strategic management of funds and allocation of priorities, proper investment and monitoring the expenditure. A successful manager must possess knowledge, skill and

talent. Financial knowledge, in particular, is a strong foundation for any leader to have. The level of a person's financial proficiency is an indicator of their adaptability and resilience" (Jet & Kong, 2018, p. 5). These abilities and their importance to the position as HPS Directors or leaders was a unanimous theme from this study and fell in line with the international research on elite sport management.

5.2.1.2. Income Sources

Participants relied mainly on their organisations as their primary source of income but agreed that this was not enough to sustain a high-performance program. They mentioned the importance of finding different ways to generate income, such as:

- Hiring out sports and conference facilities including accommodation spaces
- Hosting sporting events
- Fundraising events include offering short courses and technical courses
- Sponsorships and donations, primarily partnering with corporates
- Membership fees such as gym and club membership fees

5.2.1.3. People

This sub-theme was highly ranked amongst participants and is supported by research confirming that employing "the right people" is crucial for the sustainability of the HPS unit. The sports market across North America alone is expected to grow from 71.1 billion dollars in 2018 to 83.1 billion dollars in 2023. As the billion-dollar sports industry continues to grow in sophistication and size, so does the number of staff involved in elite sport management. Team directors, performance managers, specialising coaches and coordinators, administrators, media and marketing, university personnel, researchers, and sports specialists continue to add and expand organisational

makeup (Sotiriadou & Shilbury, 2009). This highly specialised group of experts must be able to work together to achieve the goals of the HPS program.

Participants agreed that HPS is a highly specialised field that requires experts and persons with high work ethic and passion. One such field and need was the position of HPS Director to oversee a core of full-time experts with specialised administrative and sport science knowledge in response to the increasingly commercialised and professionalised high-performance sports industry (Jones et al., 2005). From the outset, high-performance sport recognised both the traditional sciences and those deemed sports sciences in the early implementation of this progressive approach to athlete development. However, competition is profoundly dynamic, and organisations in every sector, including high-performance sports, must adapt to maintain their competitive position (Holbeche, 2007).

In this study, several participants spoke about the importance of having an organisational culture and a "team-first" approach. Participants agreed that different professions' knowledge, skills, and active involvement (head coach, sports scientist, sports manager, sports psychologist, facilities manager, or other support staff) must maintain a competitive advantage. Participants further highlighted that these professionals and experts within the various fields had to work together to achieve the program's goals. Accordingly, HPS organisations will do well to recruit, develop and retain staff that can provide a cutting-edge contribution to the unit and ensure sustainability.

5.2.2. Governance

There is rapid recognition and overwhelming evidence to suggest that the new point of difference and competitive advantage for HPS systems is effective management and governance of high-performance sport and all the processes involved (Bayle & Robinson, 2007; Chelladurai, 2007; Ferkins et al., 2010; Hoye & Cuskelly, 2007). The findings in this research emphasised certain factors of good practice such as roles and responsibilities, vision and strategy, context, prioritising sporting codes and culture

5.2.2.1. Roles and responsibilities

Based on the study results, it was evident that influential leaders need to initiate, develop, and maintain positive relationships and seek input and feedback where appropriate. This included establishing good relations with internal and external stakeholders of their organisations such as the Rector, the Registrar and the various Faculties and, externally, relations with partners such as schools, federations and sponsors. They, therefore, needed to facilitate a collaborative and significant relationship with those inside and outside the organisation to ensure that the optimum daily working environment was available. This is accomplished by establishing success through agreed roles and standards around quality, quantity, and type of training to each management and personnel level. In addition, the leader's responsibility is to develop an effective communication system based on information sharing and performance measurement for the high-performance department. In this context, people management skills and well-developed interpersonal, oral, and written communication skills are essential (Sotiriadou & De Bosscher, 2013).

5.2.2.2. Vision and strategy

Participants in this study agreed that it was essential to implement strategic vision and guidance for their organisations. The results of this study emphasised the importance of planning and documenting the plan as it provided direction to everyone in the organisation. Furthermore, it was crucial that the main stakeholders, especially internally, form part of the planning process. At HEI's, the buy-in from the University Executive members is vital as they are the primary decision-makers of the institution.

a) Context

Participants reported that it was essential to understand the context of daily operations as the circumstances differ amongst institutions and organisations. Methodologies should revolve around resources (personnel, facilities, funding), sporting codes and performances, diversity, and strong organisational culture and traditions. Participants agreed that it is essential to understand what competitors do, and trying to "copy and paste" their systems is not advisable.

b) Prioritising sporting codes

Prioritising sporting codes was a crucial aspect mentioned by participants as it was simply not possible to offer an HP service to every single code provided by an institution. Participants in this study prioritised their codes based on:

- Funding available
- Institutional traditions and culture
- Type of facilities available
- Membership totals per code
- Value-added sporting events such as Varsity Cup and Varsity Sports competitions SASCOC's list of priority codes

- Performance of the code and its athletes at Provincial, National and International levels and medalling opportunities at these events
- Media value

c) Culture

The culture was a highly ranked factor of good practice by participants as it hugely influenced the HP program's success. Sotiriadou and De Bosscher (2013) significantly described culture as "how things are done around here" and included

- Service delivery (work ethic, passion, professionalism)
- Expertise (Coaching, sport managers, sports scientists)
- Mindsets of athletes and experts
- Traditions and history of the institution

The HP Director or Director of Sport needed to be fully committed to enabling an influential workplace culture that would ensure the implementation of the HPS strategy.

5.2.3. Athlete attraction and retention

Sotiriadou and De Bosscher (2013) mention that attraction and retention processes aim to nurture many young participants destined to be elite performers by incorporating various strategies. For example, some sports organisations create opportunities through consistent quality competitions and producing quality coaching and developmental programs to retain the interest of their members.

a) Attraction

Of course, the attraction was one of the most prominent themes as, without talented athletes to develop, there would be no need for an HPS programme. The process started with talent identification, which proved to be a more complex situation for HEI's, as academic performance at the school level was a determining factor for entry into a university programme. Participants highlighted the following as good athlete attraction practices:

- Proper Talent ID plans are in place at the institutions.
- Coach education around recruiting athletes in line with academic requirements of the institution
- Partnerships with junior academies and schools to ensure sustainability
- Must be based on scientific information and must be research-driven
- Academic support offered to identified athletes in high school

Participants furthermore mentioned the academic program, the culture of an institution and the brand it represents as crucial factors for attracting the most talented athletes. The core business at HEI's is the academic program. Talented athletes were drawn to a winning culture and excellent educational offerings at HEI's. Coupled with a winning culture was the program's success based on the reputation of the coaching staff, infrastructure and facilities available and sport science support services offered. In particular, the track record and reputation of the Head Coach was a deciding factor for many talented athletes.

b) Retention

Respondents identified a sound athlete support system as the foundation of an HPS system and a significant retention factor. This support system must provide the following services for the HPS program to be successful and sustainable:

- Expertise and qualification of the coaching staff
- Sport Science support
- Academic support
- Good quality training facilities
- Suitable competition structures and support provided for and during the competitions

Sport development strategies must provide quality experiences. Therefore, participants in this study concluded that the above elements must form part of this strategy to attract and retain talented athletes.

5.2.4. Measuring the program

This particular topic dealt with the success of an HPS programme. High-performance management entails detailed planning and cost assessment of the developmental process and changing the plan to reflect budgetary realities. It is represented by a highly expert support team consisting of coaches, managers, scientists, medical staff, identifying talented athletes and recruiting those regarded as having the potential to conform to the HP model. The quality of the outputs from this system should therefore be continually evaluated. Participants in this study agreed that it was not always about winning and that the concept of winning meant different things. However, enhancing performances is what the HP programme is about and achieving goals and targets set was a way of measuring the program's success. Media coverage was also used as a yardstick by participants to measure the success of their HPS programmes. Other measuring programs included research output and sport science testing within the HPS Unit.

High performance is a constant pursuit of excellence through learning and development (Gleeson, 2019). Therefore, those in the field must form meaning for high-performance sport management practices to guide proper monitoring and evaluation.

5.3 Conclusion

The following section presents the conclusions of the research results as they directly relate to this study's research objectives.

5.3.1. To identify best high-performance sport management practices through an international literature review on high-performance sports models.

The literature revealed that international researchers developed a model that front offices and high-performance directors could compare and scale other high-performance departments in elite sport to measure the organisation's performances and evaluate their program's effectiveness (De Bosscher et al., 2011). As presented in Chapter One, the Sports Policy factors Leading to International Sporting Success (SPLISS model) (Fig 2.2, p. 36) was developed to address elite sport at the Olympic level and applies to other competition classes and professional or commercial sports teams (De Bosscher et al., 2007b). Therefore, it can be concluded that this model could be utilised as best practice for the effective establishment of HPS Units at HEI's.

However, strong evidence suggests that governing bodies must be careful about 'copying and pasting" best practices. Instead, increased awareness of their particular local realities (the historical, political, organisational, financial and conceptual sports landscape they are situated in) may allow them to identify how to tailor and most

sustainably develop their own HPS programs. Furthermore, a comprehensive literature review revealed several comparative HPS models, like the one illustrated in Figure 2.5 (p.41) and Figure 5.1 (p. 124).



Figure 5.1: The Smolianov and Zakus Model and HPM KSAs (Smolianov & Zakus, 2008; Zakus & Smolianov, 2005, p. 7)

5.3.2. To explore best high-performance sport management practices at Universities and sports organisations with high-performance sport systems in South Africa.

Based on the results of this study, the following can be concluded as current best high-performance sport management practices at selected Universities and Sport Organisations in South Africa:

5.3.2.1. Sustainability

Within this theme, the following emerged as best practices:

- i. The participants were clear about the impact of financial support and the importance of fundraising for the success and longevity of the HPS

program. High-performance sport systems cannot function without the necessary funds required. It involves employing various experts, participating in competitions locally and internationally, availability of proper facilities, maintaining those facilities, paying for athlete support services such as scholarships, accommodation and meals, and medical support such as specialist physicians.

- ii. Funding goes hand in hand with sound financial management. Therefore, management structures must have the required financial skills to manage budgets adequately.
- iii. Leaders of the HPS Departments must also raise adequate funds to sustain the unit by utilising their resources such as accommodation spaces, conferencing opportunities, hiring out of facilities, and offering courses.
- iv. HPS is a highly specialised field that requires experts and persons with high work ethic and passion. Therefore, not employing the right people can threaten the unit's sustainability. The study, therefore, concluded that finding and hiring the right personnel is significant for the sustainability of the HPS program.
- v. Experts included specialists such as the head coach, dieticians, sports managers, sports psychologists, team analysts, physiotherapists, academic support coordinators, conditioning coaches, facilities managers and the relevant research departments.
- vi. An HPS Director or HPS Manager must preferably lead the various experts.

5.3.2.2. Governance

The findings in this research emphasised certain factors of good practice within this theme, which included:

- i. Influential leaders need to develop and maintain positive relationships with all relevant internal and external stakeholders of the HPS Unit.
- ii. Roles and responsibilities must be clear and agreed upon by all role players.
- iii. Effective, timeous and efficient communication to all relevant stakeholders is crucial.
- iv. In HP sport, the high-performance department and its director are accountable for the "ongoing development and implementation" of the high-performance program, overall management and leadership, and the training programs.
- v. HPS Leaders must, in conjunction with all stakeholders, develop, present, and implement a strategic vision for the HPS Department.
- vi. Athlete development or high-performance governance emerges from complex processes. In these processes, in particular, a) historical events, b) socio-political contexts, c) financial conditions, d) senior management mentalities, and e) sport science knowledge create distinctive local athlete development governmental realities that stakeholders must negotiate. Therefore, increased awareness of these realities may allow organisations to identify how to tailor and most sustainably develop athlete development governance instead of simply wanting to "copy and paste" successful systems.

- vii. Organisations, especially HDI's, must prioritise sport codes based on: socioeconomics, institutional sporting history and culture, type and quality of facilities available, SASCO's priority list, University Sport South Africa (USSA) significant events, the performance of codes at provincial, national and international competitions, and media value that the code provides.
- viii. The organisational culture must be regarded as very important as the HPS program should be viewed as a mindset of the entire organisation and not just athletes and coaches.
- ix. It can be concluded that leadership and management occur in a high-performance environment to ensure a positive team and athlete culture, teamwork, and success.

5.3.2.3. Athlete Attraction and Retention

The following can be concluded as best practices within this theme:

- i. Identifying talented athletes for University programs is complex as entry to the University is determined by academic results first, and therefore, proper plans need to be in place.
- ii. There must be agreement amongst the top management structure of HEI's with regards to recruitment and selection policies for student-athletes
- iii. HEI's must adopt dual-career friendly policies that address entry requirements, absence from classes and opportunities to complete degrees over more extended periods.
- iv. Coach education around recruitment for HPS programs at HEI's is a necessity.

- v. Partnerships with junior academies and sport focus schools were meaningful in identifying talent early enough to provide the necessary support for the holistic development of the athlete.
- vi. Academic offerings, a winning culture, and the Head Coach's reputation were determining factors attracting students.
- vii. Coaches must be qualified and experienced, but more importantly, they must have an understanding of the HEI environment
- viii. In attracting and retaining the top student-athletes, elements such as bursaries, accommodation, infrastructure, good quality facilities, academic support and sport science support play a vital role.
- ix. Competition structure and support during competitions such as physiotherapy, recovery methods, proper meals and comfortable accommodation were necessary for performance.
- x. Effective communication and cooperation must be between the HPS department and its internal partners such as Faculties and the Sports Science Research Units.
- xi. All staff within the HPS structure must be qualified, competent and show a real passion for their specific job and the HEI environment.

5.3.2.4. Measuring the program

Within this theme, also indicated as Output within the SPLISS model, it can be concluded that:

- i. Whilst it was important to be performance-driven, winning is not always used to measure success.

- ii. It was essential to monitor and evaluate the HPS program to adapt to new developments and stay abreast of the times.
- iii. Successful performance means different things to different organisations, and to measure performance effectively requires an appreciation of the context in which it operates.

Overall, this study's first two exploratory objectives were well met, and the last objective will address the recommendations in the form of guidelines for HDI's.

5.4 Study limitations

Amid the fact that the aims and objectives for this study have been met, the study had its limitations. Due to the qualitative nature of the survey, subjective interpretation was involved in analysing gathered data. The researcher made every effort to translate the interviewee's opinions accurately. However, as translation can be subjective, it depends on personal understanding and perception. Furthermore, finding a suitable time to schedule key-informant interviews was challenging due to the onset of the global Covid 19 pandemic (a Coronavirus disease that had deadly consequences for millions of people worldwide) and resulted in restrictions on travel due to lockdowns. Initially, face-to-face interviews were scheduled, but this was changed to online interviews, which proved more challenging due to the availability of free time of the participants.

5.5 Recommendations to practice

The following recommendations could be made to develop guidelines for best practices at historically disadvantaged institutions:

Sustainability

- There should be sufficient financial support for the HPS program because resources (both human and physical) and funding provide opportunities to develop talented athletes. Therefore, it is not recommended to embark on an HPS programme without a proper financial model.
- The members of the University Senior Executive must buy into the establishment of the program as the University will be the biggest funder for such a program. Therefore, it is vital to have a proper fundraising plan to sustain the programme.
- It is also recommended that the right personnel be employed to ensure the program's sustainability. One such appointment should be a high-performance manager or Director dedicated to priority codes and exceptional leadership and communication skills. In addition, the High-Performance staff, including administrative staff such as sport managers, coaches and sport science staff, must be qualified, experienced and passionate about the programme.

Governance

- Strong coordination of all departments and stakeholders involved in the HPS system needs to be strong, with clear task descriptions and no overlap. Therefore, long-term strategic planning, a sound communication system, and administrative simplicity through common sporting and leadership boundaries are required. In addition, forming a common understanding of something before

managing it develops purpose and establishes the trust of those involved (Darnall & Preston, 2021).

- Resources must be targeted at those sporting codes and athletes that have a real chance at success at the various national and international competitions. However, HDI's generally do not have the same resources as HWI's, and the HPS programme can therefore not be a "free for all". In addition, the context in which HDI's operate is often very different compared to their counterparts, which must be considered when designing an HPS programme.
- There must be an effective communication process amongst all internal partners at the institutions, which includes Academia. This is recommended as HPS student-athletes are regarded as dual-career athletes meaning they have to manage a stressful academic and athletic career. Having Deans at the different Faculties who are supportive will allow student-athletes to prepare and compete under less stressful conditions. Furthermore, it is recommended that a sports policy is in place at the institution that spells out processes and procedures for selecting and enrolling identified talented athletes, leave of absence from academic commitments due to sporting obligations nationally and internationally, and extended degrees for elite athletes.
- There must be structured communication and cooperation with external partners such as corporations, provincial and national federations, junior academies and schools, and the media.
- Creating a positive team culture is critical. However, in the current hiring trend for high-performance sport positions, the sole concentration in on-field data and performance places enormous amounts of additional stress throughout the organisation to create a team culture.

- If it is indeed a position of performance development and oversight, then the responsibility of a positive and organizationally influencing culture falls squarely on the high-performance sports director.

Athlete attraction and retention

- There must be comprehensive planning for talent identification. HPS systems at the HDI's must have a written policy plan which describes step by step long-term planning for talent identification and how this talent is recognised, identified, selected and then further developed with all support systems in place.
- There must be a coordinated effort between stakeholders such as schools, federations, youth academies and the HDI to facilitate the combination of HPS and studies during the schooling career. The same support must continue when enrolled at the University.
- HDI's must invest in employing trained and experienced coaches who understand the higher education environment and the stresses student-athletes face.
- Coaches must get sufficient opportunities to develop their coaching careers to become world-class.
- Training facilities must be of high quality for talent to be adequately developed. Therefore, there should be a network of quality sports centres and facilities close to the institution, where athletes can train in suitable conditions.
- Specific funding must be provided for the building and renovation of elite sport facilities

- There must be sufficient sports science support provided, including applied scientific research. In addition, coaches must use sport-scientific information available concerning their sport.
- High-performance student-athletes have hectic schedules due to their academic and sporting commitments. Therefore, an academic support program for the HPS athletes must be facilitated and coordinated by a permanent staff member employed for this specific purpose.
- The school system can contribute substantially to high-performance sports by establishing specific support and measures. These should enable young high-performance athletes to coordinate their educational requirements with those of their high-performance sport.
- Coordinating education and high-performance sport is a pressing issue in the university domain. Exceptional support and assistance when combining regular training and academic commitments must be implemented in various ways by the universities. For this reason, appropriate support measures by universities for high-performance athletes also constitute an integral contribution to the assurance of high-level performances.
- There must be accommodation facilities available; ideally, at the institution, high-performance sports athletes can maximise their time between their academic commitments and the training facilities.
- Nutrition must be provided for the HPS student-athletes for them to perform optimally. In addition, in most instances, HDI's attracts student-athletes from disadvantaged communities where often, a proper meal is not available.

- There should be sufficient opportunities for the athletes to participate in national and international competitions where competition support such as accommodation, transport and sport science support is sufficiently provided.

Measuring the programme

- It is recommended that an appropriate technique for the given set of circumstances be applied and then interpret the results accordingly when measuring the programme's success.

5.6 Recommendations for future research

This study has opened up the need for further investigation in HPS management practices at HEI's. The following were suggested for further research:

- Something missing from the research and literature internationally and locally is the inclusion of high-performance sports models or best practices for HEI's. Therefore, HPS at higher education institutions has yet to be thoroughly examined or associated with HEI's.
- HP sport has become a significant issue for sport and its many stakeholders at HEI's. One area of increasing interest rests in the various approaches for developing athletes from different contexts at HEI's, especially at historically disadvantaged institutions.
- In studying different approaches, we see various ever-emerging competition systems, cultural differences, academic challenges dual-career students face, advanced athlete preparation and support, performance analysis, strength and conditioning, and lifestyle management emerging. These could be given more prominence in the future.

- In the context of these developments, more significant consideration of professionals working in HP sport and new modes of developing student-athletes that rely on the private sector involvement is exciting new avenues for investigation (Sotiriadou et al., 2017). In addition, HP sport is a global business and as such, understanding the HP sports landscape in these broader terms is essential.
- Further research is warranted into leading sport systems in the South African context to build a conceptual framework for high-performance sport at HEI's in South Africa.
- The use of the evidence-based practice in HPS at HEI's may improve: general HPS management systems, academic results and performance, reduce errors (i.e., injury management), help balance benefits and risks in decision making, challenge believe-based views with evidence, and integrate academic, athlete and coach preferences into decision making to education, training and performance.
- It would be beneficial to conduct a study with a broader sample of participants, including student-athletes and coaching staff at HEI's who could be asked how their perception of HPS facilitates their understanding of the sports development process.
- The current development of highly rationalised sport systems at HEI's requires a new form of specialised management professional: a high-performance manager. Further research should determine the relative importance of this position at HDI's. The HPS "model" consists of comparative modelling, management principles, departmental communication, planning, sport sciences, and a holistic approach to athlete development. Establishing how

high-performance sport at HDI's is defined, the implementation and views of high-performance management at HDI's, and the high-performance sports model at those levels, could further develop HPS system assessments at HDI's. Further analysis on how different sports and competition levels at HDI's impact and change the high-performance management model would be new territory for this area.

5.7 Study Conclusion

This study aimed to analyse the best high-performance sports practices globally and locally to create guidelines for HDI's. HP sport has become a significant issue for sport and its many stakeholders. A literature review affirmed this and provided a working framework (SPLISS) to analyse best practices globally and at a few identified South African organisations and HEI's. The SPLISS framework recommended certain critical pillars such as funding, good governance, talent identification, and athlete support systems as the foundation of best high-performance practices. This research study's findings supported this. In addition, this research provides the opportunity to do a study of similar nature on an extended basis, drawing on more information, potentially involving additional comparisons, especially at the HPS management policy development level at HDI's.

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APPENDICES

Appendix A: Information Sheet

Appendix B: Consent Forms

Appendix C: Interview Schedules

Appendix D: Ethics Committee Letter



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INFORMATION SHEET

Project Title: Analysing Best High-Performance Sport Management Practices to develop Guidelines for Historically Disadvantaged Institutions

What is this study about?

This is a research project being conducted by Elmien Cloete from the University of the Western Cape. The purpose of this study is to analyse best high-performance sport practices in order to develop guidelines for HDI's. To this end, the participants include high performance directors/co-ordinators as well as directors of sport, at some tertiary institutions with High Performance Sport units in South Africa. You have been invited to participate in this study as you meet the criteria for the study.

What will I be asked to do if I agree to participate?

You will be asked to participate in an interview related to the research topic at a time and venue of your convenience. Interviews will last between 60 and 75 minutes and will be recorded with your permission. Due to the current Covid19 situation, video-conferencing will be arranged and this too shall be recorded, with confidentiality and anonymity assured. All data obtained, transcriptions and recordings will be kept confidential and you will remain anonymous. Your participation in the study will make valuable contribution to our understanding of successful high performance management practices for Higher Education Institutions.

Would my participation in this study be kept confidential?

The researchers undertake to protect your identity and the nature of your contribution. To ensure your confidentiality; the data will be accessible only to the researcher and the project supervisor. All data will be stored in a locked cabinet and password protected computer files. If we write a report or article about this research project, your identity will be protected and no names will be reported in the findings of this study. Therefore, pseudonyms will be used.

What are the risks of this research?

All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator to recommend guidelines for establishing high performance management practices at HDI'S. We hope that HDI's who wish to improve the level of sport at their institutions can access the findings and adapt it to their own needs.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify

What if I have questions?

This research is being conducted by Elmien Cloete at the Sport and Recreation, Exercise Science Department at the University of the Western Cape. If you have any questions about the research study itself, please contact Elmien Cloete at: Sports Administration, telephone number: 021 959 2791, email address: edcloete@uwc.ac.za

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

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This research has been approved by the University of the Western Cape's Research Ethics Committee. (REFERENCE NUMBER: *HS19/10/1*)



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CONSENT FORM

Title of Research Project: Analysing Best High-Performance Sport Management Practices to develop Guidelines for Historically Disadvantaged Institutions.

The study has been described to me in a language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

Participant's name.....

Participant's signature.....

Date.....

Appendix C

Sample Semi-Structured Interview Questions:

A. GOVERNANCE

1. What is your specific role and responsibilities within and on behalf of your organization?
- 2 (institution) is known for producing top performing athletes and sports teams that amongst others compete at the highest level of competitions in SA. To what would you attribute this success to?
3. What would you consider as current overall “good practices “when structuring a high performance programme?
4. Would you care to comment on the decision-making processes at your organization? Follow up: Who are the main role players involved?
5. What strategy do you employ for making sure your program is sustainable?

B. ATHLETE SUPPORT

6. Do you think that there is a need for Talent Id systems at Institutions of Higher Learning? (Follow up if need be: What should it entail?)
7. Could you indicate the support services in your opinion that are vital to attract and retain a talented athlete to an institution of higher learning.
8. Do you have a policy or agreements in place that addresses academic support for student- athletes and what does it entail? Follow up: How supportive is the Academic structures at your institution to the HP program.

C. FINANCIAL SUPPORT

9. What are your views on the financial implications of running a high-performance program? Follow up – Do you think that the HPS program at your institution get enough financial support?

D. SPORT SCIENCE SUPPORT

10. What relationship does your unit have with Academic Departments at the Institution in as far as improving athletic performances of the student-athletes?

11. Would you care to comment on the sport science support services vital for athlete development?

E. COACH EDUCATION

12. Which qualities do you look for in coaches when you employ them? Follow up: Would you say that Coaches at HPS levels should have academic qualifications as well as technical qualifications?

13. How do you make sure that the coaches in your HPS program continuously develop?

F. COMPETITION STRUCTURE

14. At which levels/ competitions do your athletes compete at?

15. What kind of support do you provide when the athletes compete at these different levels?

G. FINAL QUESTION

16. How do you measure the success of your program?



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10 March 2020

Ms E Cloete
SRES
Faculty of Community and Health Sciences

Ethics Reference Number: HS19/10/1

Project Title: Analysing best high performance management practices to develop guidelines for historically disadvantaged institutions.

Approval Period: 22 November 2019 – 22 November 2020

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

A handwritten signature in black ink, appearing to read 'Patricia Josias', on a white rectangular background.

*Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape*

NHREC REGISTRATION NUMBER - 130416-049